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# Italian Journal of Medicine

*A Journal of Hospital  
and Internal Medicine*

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The official journal of the Federation of Associations  
of Hospital Doctors on Internal Medicine (FADOI)

**XXII Congresso Nazionale della Società Scientifica FADOI**  
Sorrento, 13-16 maggio 2017

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**Sorrento 13-16 maggio 2017**

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## COMMUNICATIONS

### Unconventional indications to non-invasive ventilation for acute respiratory failure

D. Agostinelli<sup>1</sup>, M. Cavazza<sup>2</sup>, R. Voza<sup>3</sup>, N. Binetti<sup>3</sup>, R. Lazzari<sup>2</sup>, R. Ferrari<sup>2</sup>

<sup>1</sup>Medicina Interna, Policlinico Sant'Orsola - Malpighi, Dipartimento Medico della Continuità Assistenziale e delle Disabilità, Università degli Studi, Bologna; <sup>2</sup>Medicina d'Urgenza e Pronto Soccorso, Policlinico Sant'Orsola - Malpighi, Dipartimento dell'Emergenza - Urgenza, Azienda Ospedaliero Universitaria, Bologna; <sup>3</sup>Pronto Soccorso ed Emergenza Territoriale, Area Nord, Dipartimento Emergenza, AUSL, Bologna, Italy

**Introduction:** Non-Invasive Ventilation (NIV) showed main evidence in efficacy for acute respiratory failure due to exacerbation of chronic obstructive pulmonary disease and cardiogenic pulmonary edema, and spread out of the Intensive Care Units (ICUs). Many other conditions, considered as unusual indications for NIV, have lower strength of recommendation but are increasing in use.

**Aims and Methods:** To assess the impact and the outcome of conditions considered as unconventional for NIV in the Emergency Department (ED) we performed an observational study in the ED of a University Teaching Hospital including every non-selected patient treated by NIV in a 4 months time. Failure was defined as in-hospital death or tracheal intubation (TI).

**Results:** Total: 297 patients (media 2.43/day); pH: media 7.32, median 7.33; P/F: media 214, median 209; NIV as a ceiling treatment: 27.4%; failure rate: 22.7%. Unconventional indications: rate: 51.1%; ceiling: 32.6%; failure rate: 26.7%; ceiling in failures: 52.8%; failure without TI: 80.0%.

**Conclusions:** The use of NIV for unconventional indications is spreading in the ED: failure rate is higher than usual cases (as already known from data coming from ICUs) but in this subgroup the rate of patients with no indication to TI in case of failure (NIV as a ceiling treatment) is dramatically high. We could not find any early predictors of outcome from the lab to help risk stratification; in failure cases arterial blood gas data showed some slight abnormalities on the metabolic side; pneumonia and inhalation showed a particularly high failure rate.

### Solutions for Emergency Department crowding in Local Health Unit TO3: the overcrowding management plan

M. Alesina<sup>1</sup>, D. Minniti<sup>2</sup>, S. Passi<sup>1</sup>, G.A. Cibinel<sup>3</sup>, R. Sacco<sup>4</sup>, R. Siliquini<sup>1</sup>, F. Boraso<sup>5</sup>

<sup>1</sup>Department of Sciences of Public Health and Pediatrics, University of Turin; <sup>2</sup>Medical Direction, Local Health Unit TO3, Rivoli Hospital, Rivoli (TO); <sup>3</sup>Emergency Department, Local Health Unit TO3, Pinerolo Hospital, Pinerolo (TO); <sup>4</sup>Medical Direction, Local Health Unit TO3, Pinerolo Hospital, Pinerolo (TO); <sup>5</sup>General Directorate, Local Health Unit, ASL TO 3, Piedmont, Italy

**Introduction:** Emergency Department(ED)crowding has become a major topic of discussion and in the Local Health Unit To3(ASL TO3)has occurred in particular over the winter season 2016-17. Multiple factors contributed to ED overcrowding, firstly the early peak of the flu season. In order to manage this problem, an Overcrowding Management Plan(PGS)has been created.

**Materials and Methods:** Many indicators were monitored:number of admitted patients,patients waiting for visit,waiting and boarding times, free beds in the hospital and in the ED,NEDOCS.When a high number of patients were admitted, or times exceeded limits, or demand for beds surpassed capacity, the PGS were activate in order to assist in decompressing the ED.

**Results:** The PGS defines a comprehensive set of interventions: some were carried out in case of predictable overcrowding,others when indicators exceeded limits.The first category includes inter-

ventions like activation of fast-track paths for specific diseases,prioritization by ancillary services(laboratory, radiology), strengthening of bed management and protected discharges, neglecting the gender barrier in the rooms, increase times of the acceptance of hospitalization. The second includes: funneling resources to the ED (additional human resources and stretchers), neglecting the nosological area for acceptance in ward, increase of beds, limitation of elective activities, reallocations of available personnel.

**Conclusions:** Interventions decompressed the overcrowding; department directors increased system efficiency taking into account the safety rules and laws. When the plan was put in place a high quality standards and appropriateness of care were maintained.

### CHA<sub>2</sub>DS<sub>2</sub>-VASC score as a predictor of in-hospital mortality in patients with sepsis admitted to Internal Medicine Units

E. Antonielli<sup>1</sup>, G. Brunetti<sup>1</sup>, E. Blasi<sup>1</sup>, A. Crociani<sup>1</sup>, G. De Marzi<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. Cioni<sup>1</sup>, L. Corbo<sup>1</sup>, O. Para<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la complessità assistenziale 1, AOU Careggi, Firenze, Italy

**Background:** Sepsis is a condition with a high mortality and morbidity rate worldwide and cardiovascular events play a crucial role in determining prognosis. We analyzed the validity of CHA<sub>2</sub>DS<sub>2</sub>-VASC score as a predictor of outcome in septic patients admitted to an Internal Medicine Unit.

**Methods:** This retrospective study enrolled 233 patients with diagnosis of sepsis, severe sepsis and septic shock admitted to an Internal Medicine unit between 1<sup>st</sup> January 2014 and 31<sup>st</sup> December 2015. We evaluated the correlation between CHA<sub>2</sub>DS<sub>2</sub>-VASC score and patients' outcome in term of in-hospital mortality.

**Results:** In-hospital mortality was 14,2%. Mean CHA<sub>2</sub>DS<sub>2</sub>-VASC score was 3,7±2,1, and it was higher in patients with adverse outcome (4,18±1,66 vs 3,55±2,08, p<0,0001). A CHA<sub>2</sub>DS<sub>2</sub>-VASC score ≥4 was significantly associated with in-hospital mortality (p<0,001), with an AUC=0,8 at the ROC curve analysis. At multivariate analysis, CHA<sub>2</sub>DS<sub>2</sub>-VASC score was found to be a predictor of mortality independently from the presence of comorbidities (95% CI 0,002-0,578; p<0,005).

**Conclusions:** The cardiovascular background is relevant for the outcome of septic patients, and a large amount of septic patients admitted to Internal Medicine presents cardiovascular comorbidities. The evaluation of CHA<sub>2</sub>DS<sub>2</sub>-VASC score at patients' admission may represent an economic and reliable tool, in addition to those already in use to improve the prognostic stratification of septic patients in Internal Medicine Units.

### How do a systematic review: an experience of FADOI group of systematic reviews

T.M. Attardo<sup>1</sup>, A.L. Patti<sup>2</sup>, S. Piras<sup>3</sup>, L. Tesei<sup>4</sup>, D. Tirota<sup>5</sup>, M. Tonani<sup>6</sup>, F. Berti<sup>2</sup>

<sup>1</sup>UO Medicina Interna, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento; <sup>2</sup>UO Medicina Interna, Azienda Ospedaliera S. Camillo Forlanini Roma; <sup>3</sup>UO Medicina Interna Ospedale Civile Alghero; <sup>4</sup>Dipartimento Medico A.V. Ancona ASUR Marche; <sup>5</sup>UO Medicina di Cattolica (RN), Ospedale Cervesi, AUSL Romagna; <sup>6</sup>UO Medicina 2, IRCCS Policlinico San Matteo, Pavia, Italy

**Background:** The number of publications and research on a given topic is too large, the methodological quality of the studies is heterogeneous and often the results of studies conducted on the same subject may differ. A systematic review (SR) of RCTs, starting from a PICO, use explicit and systematic methods to identify, select

and critically evaluate relevant research and collect and analyze data from the studies included.

**Methods:** We have defined the PICO: P (Adults with acute pyelonephritis), I (Short course antibiotic therapy), C (Long course antibiotic therapy), O (Clinical success, relapses, recurrences, adverse event). We searched MEDLINE, EMBASE and CENTRAL up to June 2016 for RCTs using the specific search strategy. Successively, we checked the reference lists of all included studies and screened titles and abstracts. We assessed the full texts of potentially relevant studies for inclusion and we adapted a standardized data collection form to extract the information. We analyzed dichotomous outcomes by calculating the risk ratio (RR). We combined the outcomes from the individual trials through meta-analysis where possible using a random-effects model and we analyzed heterogeneity by means of the I<sup>2</sup> statistic and the Chi<sup>2</sup> test. We assessed the overall quality of the evidence for the primary outcome using the GRADE system.

**Results:** From 1519 articles retrieved (175 duplicates), twelve records were found as potentially eligible and assessed in full text, only 4 RCTs (379 participants) were included in SR. We registered the SR in PROSPERO database (CRD42016051105).

### TNF alpha inhibitors, cardiovascular risk and quality of life in rheumatoid arthritis: a randomized controlled trial

F. Atzeni<sup>1</sup>, L. Gianturco<sup>2</sup>, B.D. Bodini<sup>3</sup>, V. Gianturco<sup>4</sup>

<sup>1</sup>Rheumatology Unit, L Sacco University Hospital, Milan; <sup>2</sup>Cardiology Unit, Department of Biomedical Sciences for Health, IRCCS Galeazzi Orthopaedic Institute, Milan; <sup>3</sup>IRCCS Galeazzi Orthopaedic Institute, Milan; <sup>4</sup>\*F.Turati Foundation, Health Center, Zagarolo (RM), \*GMSFC, Rome, Italy

**Background and Aims:** It is well documented that patients with rheumatoid arthritis (RA) are at an increased risk of cardiovascular disease (CVD). In addition to traditional CVD risk factors, the systemic inflammation associated with RA also plays a role in increasing CVD risk in patients. Aim of our study was to investigate the impact of TNF $\alpha$  inhibitors (TNFi) on CV risk and quality of life.

**Materials and Methods:** Metabolic analytes (lipid profile, glucose triad, uric acid) and Ultrasound parameters (IMT, PWV, EF, Longitudinal strain) were measured at baseline, 6th and 12 month in patients enrolled in a randomized, double-blind, placebo-controlled study (traditional therapy vs TNFi). Quality of life was assessed using EQ-5D-5L score.

**Results:** A total of 81 patients were randomized, 51 to placebo and 30 to TNFi. Levels of metabolic analytes were similar in the two groups (adjusted for age, sex, drugs), with some exceptions: LDL decreased significantly in TNFi group (p value 0,003) at the 6th month, with a positive trend at the 12th month. PWV and longitudinal strain were significantly modified by TNFi therapy at the 6th month (p value 0,034-0,046). Quality of life was significantly improved in the TNFi group (p value 0,021).

**Conclusions:** TNFi therapy seems to have a possible effect on CV traditional risk factors, with a significant improvement on quality of life of RA patients. Further studies are needed to investigate this role in the CV risk prevention.

### Ultrasonographic fatty liver indicator detects mild steatosis and correlates to metabolic-histological parameters in various liver diseases

S. Ballestri<sup>1</sup>, F. Nascimbeni<sup>2</sup>, E. Baldelli<sup>3</sup>, A. Marrazzo<sup>3</sup>, D. Romagnoli<sup>2</sup>, G. Targher<sup>4</sup>, A. Lonardo<sup>2</sup>

<sup>1</sup>Division of Internal Medicine, Azienda USL, Pavullo Hospital, Modena; <sup>2</sup>Division of Internal Medicine, Azienda USL, Nuovo Ospedale Sant'Agostino Estense di Baggiovara, Modena; <sup>3</sup>University of Modena and Reggio Emilia, Department of Biomedical, Metabolic and Neural Sciences, Modena, <sup>4</sup>Division of Endocrinology, Diabetes and Metabolism, Department of Medicine, University and Azienda Ospedaliera Universitaria Integrata of Verona, Italy

**Background and Aims:** Fatty liver is a common feature encountered in various liver diseases. The sensitivity (Se) and specificity (Sp) of ultrasound for diagnosing fatty liver is variable. Aim of our study was to assess the diagnostic performance of a semi-quantitative ultrasound score, i.e. the ultrasonographic fatty

liver indicator (US-FLI), in detecting varying degrees of histological steatosis, and to determine the association between US-FLI and metabolic/histological parameters in 352 biopsied patients with chronic liver diseases due to varying etiologies (173 HCV, 23 HBV, 123 NAFLD and 33 Others).

**Results:** US-FLI accurately detected mild (minimum amount 10%) steatosis on histology (Se 90.1%, Sp 90%) with a cut-off value  $\geq 2$  and moderate ( $\geq 30\%$ ) steatosis with a cut-off value  $\geq 3$  (Se 86.4%, Sp 92.5%). US-FLI was also correlated to steatosis percentage in each liver disease group; lobular inflammation, ballooning, portal fibrosis, grading and staging in NAFLD and HCV. US-FLI was correlated to anthropometric/metabolic variables in the whole sample and, in particular, to waist circumference, BMI and HOMA-insulin resistance in each liver disease group. Finally, US-FLI  $\geq 3$  showed the best diagnostic performance to identify metabolic syndrome (Se 70.7%, Sp 72.3%).

**Conclusions:** US-FLI accurately identifies mild-to-moderate steatosis on histology and is correlated to metabolic and histological parameters in patients with various liver diseases, suggesting its clinical use as an easy and versatile tool to screen for steatosis and the metabolic health of patients.

### Multidrug resistant Gram negative bacteria in Internal Medicine: epidemiology, clinical characteristics and outcome. Findings from a single center case-control study

S. Baroncelli<sup>1</sup>, P. Fortini<sup>1</sup>, C. Florenzi<sup>1</sup>, E. Blasi<sup>1</sup>, G. De Marzi<sup>1</sup>, A. Crociani<sup>1</sup>, G. Cioni<sup>1</sup>, E. Antonielli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

**Introduction and Aims of study:** The wide spread of multidrug-resistant (MDR) bacteria is the main responsible of nosocomial infections and it is a serious problem for intensive care units and Internal Medicine Departments. The purpose of our study was to evaluate risk factors, length of hospital stay, clinical outcome and prognostic value of MDR gram-negative infections, sustained by *A. baumannii*, *P. aeruginosa* and *K. pneumoniae*, detected in our department.

**Materials and Methods:** The study was conducted retrospectively on 177 patients with positive microbiological cultures for *A. baumannii*, *P. aeruginosa* and *K. pneumoniae*, hospitalized from January 2010 to December 2015, and on 354 control patients homogeneous for age, sex and period of hospitalization.

**Results:** We found that time of ICU hospitalization, previous administration of carbapenems and presence of devices were the main risk factors for infections sustained by MDR species. Infection caused by *A. baumannii*, *P. aeruginosa* and *K. pneumoniae* determined a significant increase in hospital mortality and length of hospital stay. The time trend of these infections in our department remained relatively stable from 2010 to 2013 and it showed a limited decrease from 2014 to 2015.

**Conclusions:** MDR *A. baumannii*, *P. aeruginosa* and *K. pneumoniae* species are frequent in Internal Medicine Departments and they are responsible for severe clinical picture, long hospitalization and high mortality. Our data support the need to find new weapons to limit the emergence, the spread and treatment of bacterial resistances.

### Reversible cerebral vasoconstriction syndrome: a case report

C. Baruffi<sup>1</sup>, A. Faraone<sup>1</sup>, G. Carrieri<sup>2</sup>, M. Cincotta<sup>3</sup>, N. Limbucci<sup>4</sup>, C. Boccadori<sup>1</sup>, G. Nenci<sup>1</sup>, A. Fortini<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale San Giovanni di Dio, Firenze; <sup>2</sup>Radiologia, Ospedale San Giovanni di Dio, Firenze; <sup>3</sup>Neurologia, Ospedale San Giovanni di Dio, Firenze; <sup>4</sup>Neuroradiologia Interventistica, AOU Careggi, Firenze, Italy

**Introduction:** Reversible cerebral vasoconstriction syndrome (RCVS) is an uncommon cause of headache and neurological deficits. Vasoconstriction is usually reversible, but neurological impairment can persist.

**Case report:** A 35 years-old woman was admitted to our Stroke Unit because of headache, visual field defect, weakness of the left upper limb and consciousness fluctuations. Symptoms had appeared 10 days after a twin birth by caesarean section. The angio-MRI showed an extensive ischemic area in the right

temporo-occipital region and a widespread arterial vasoconstriction suggesting cerebral vasculitis or RCVS. In view of the seriousness of the clinical picture, high dose steroids and intravenous nimodipine were quickly administered, obtaining only slight clinical improvement. Two days later, an invasive cerebral angiography showed persistence of vasoconstriction and a selective intra-arterial infusion of nimodipine was performed, with good vasodilator response. Diagnosis of RCVS was confirmed, and the invasive procedure was repeated 3 days later. Intravenous nimodipine was continued for 10 days, while steroids were withheld. Neurological symptoms improved and the patient was discharged home with only a mild visual field defect. Angio-MRI confirmed the regression of vasoconstriction.

**Conclusions:** RCVS is a severe neurological syndrome typically involving middle-aged adults. More than half of the cases occur in the postpartum period or after an exposure to vasoactive drugs. In view of its clinical severity, emergency physicians and internists should be aware of RCVS.

### Sclerostin and anti-sclerostin antibodies serum levels are associated with the presence of axial spondyloarthritis in patients with inflammatory bowel diseases

D. Benfaremo<sup>1</sup>, D.F. Carbotti<sup>1</sup>, M. Rossini<sup>1</sup>, M. Ciferri<sup>1</sup>, G.P. Martino<sup>1</sup>, L. Manfredi<sup>1</sup>, M.M. Luchetti<sup>1</sup>, A. Gabrielli<sup>1</sup>

<sup>1</sup>Clinica Medica, Università Politecnica delle Marche, Ancona, Italy

**Background:** Lower serum levels of sclerostin (SOST), an antagonist of the Wnt/ $\beta$ -catenin pathway, have recently been identified as disease biomarker in patients affected by ankylosing spondylitis (AS), and the presence of anti-SOST antibodies has been reported in these patients.

**Methods:** We assayed SOST and anti-SOST antibodies (anti-SOST-IgG) serum levels in 40 patients affected by inflammatory bowel diseases (IBDs) and in 85 patients affected by IBD-associated spondyloarthritis (IBD-SpA), 45 with axial and 40 with peripheral joint involvement. Patients affected by rheumatoid arthritis, AS and healthy individuals were used as controls.

**Results:** SOST serum levels resulted significantly lower in IBD-SpA than in IBD patients, and its decrease was strongly significant, as in AS patients, only in patients with axial involvement but not in those with the only peripheral arthritis. Moreover, anti-SOST-IgGs levels resulted significantly higher, and similar to AS, only in patients with axial SpA but not in control groups. In patient with IBD-SpA, SOST and anti-SOST serum levels were negatively correlated and both were associated with the duration of articular symptoms. Moreover, in the ROC analysis both biomarkers were accurate for the presence of axial joint involvement in patients with IBDs (SOST AUC 0.88,  $p < 0.001$ ; anti-SOST AUC 0.83,  $p < 0.001$ ).

**Discussion:** In patients affected by IBD, both SOST and anti-SOST-IgGs serum levels may represent novel biomarkers for the assessment of the presence of axial spondyloarthritis in clinical practice.

### Effects of Galectin-3 as a biomarker reflecting profibrotic processes in heart failure with preserved ejection fraction. Preliminary results of an observational study

M. Bertoni<sup>1</sup>, M. Foretic<sup>1</sup>, A.M. Traini<sup>2</sup>, A. Celli<sup>3</sup>, R. Martini<sup>1</sup>, I. Bracali<sup>1</sup>, M.E. Di Natale<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna 2. Nuovo Ospedale S. Stefano, Prato; <sup>2</sup>U.O.C. Cardiologia. Nuovo Ospedale S. Stefano, Prato; <sup>3</sup>U.O. Analisi Chimico-Cliniche. Nuovo Ospedale S. Stefano, Prato, Italy

**Background:** Among the pathophysiologic mechanisms of heart failure with preserved ejection fraction (HFpEF), the change in collagen homeostasis resulting in extracellular matrix fibrosis and development of diastolic dysfunction seems to play a pivotal role. Galectin-3 (Gal-3) is an emerging biomarker reflecting profibrotic processes in HFpEF. Aim of our study was to analyse the relation of serum Gal-3 levels with both serum NT-proBNP levels and echocardiographic indices of structural remodeling (left atrial volume index - LAVI) and diastolic dysfunction (E/e' and E/A), in patients (pt) with HFpEF. We report the preliminary data of the first 26 pt enrolled.

**Methods:** HFpEF diagnosis was made according to 2016 ESC

guidelines. Patients underwent both echocardiographic assessment of LAVI, E/e', E/A, and measurement of serum Gal-3 and NT-proBNP levels by enzyme-linked fluorescent assay. Gal-3 was also measured in 26 age- and gender-matched control subjects.

**Results:** Gal-3 levels were significantly increased in HFpEF pt (mean age 80.19 $\pm$ 6.36, 15 men) compared to controls (17.05 $\pm$ 6.66 ng/mL vs 12.96 $\pm$ 4.69 ng/mL,  $p < 0.002$ ). In linear regression analysis Gal-3 levels were significantly correlated with NT-proBNP levels, LAVI, and E/e' ( $r = 0.46, p < 0.02$ ;  $r = 0.39, p < 0.05$ ;  $r = 0.45, p < 0.04$ , respectively).

**Conclusions:** In pt with HFpEF Gal-3 levels were significantly elevated and correlated with indices of HFpEF severity such as higher levels of NT-proBNP and higher values of LAVI and E/e'. Our preliminary data support that pt with HFpEF have values of Gal-3 that may reflect a profibrotic state.

### Synovial power Doppler signal of trapeziometacarpal joint in patients affected by erosive hand osteoarthritis and non-erosive hand osteoarthritis. Differences observed in two cohorts of patients

E. Bizzi<sup>1</sup>, S. Rotunno<sup>1</sup>, A. Armiento<sup>1</sup>, A. Bianchi<sup>1</sup>, V. Della Chiara<sup>1</sup>, F. Lasaracina<sup>1</sup>, M. Martinelli<sup>1</sup>, R. De Angelis<sup>1</sup>, D. Larussa<sup>1</sup>, C. Valente<sup>1</sup>, O. Guarino<sup>1</sup>, L. Xiao<sup>1</sup>, L. Giubilei<sup>1</sup>, M. Cassol<sup>1</sup>

<sup>1</sup>Medicina Interna - S.Pietro FBF Hospital, Rome, Italy

**Background:** Erosive hand OA (EHOA) may differ from non-erosive hand OA (HOA) not only for clinical features, but also for ultrasound aspects.

**Aim of the study:** We aimed to investigate eventual differences in the Power-Doppler (PD) signal of synovia of TMC joint in patients affected by EHOA and HOA of TMC joint, in order to understand its prevalence in the two subsets of OA.

**Materials and Methods:** Patients affected by EHOA and HOA of TMC were examined by ultrasound examination of TMC by the use of a linear probe (ESAOTE, MyLab25, Genova, Italy) by palmar and dorsal, longitudinal and transversal views of the joint and bone surfaces and PD signal of synovia was recorded. Eventual differences in the rates of synovial inflammation were evaluated.

**Results:** A total of 32 patients affected by HOA and 11 patients affected by EHOA were examined. A total of 61 TMC joints were examined in the patients affected by HOA, as 29 patients had bilateral TMC HOA. A total of 21 TMC joints were examined in the patients affected by EHOA, as 10 patients had bilateral EHOA. PD signal was found as positive in 7 out of 61 TMC joints affected by TMC HOA (11,47%), while PD signal was observed as positive in 13 out of 21 (61,9%) TMC joints affected by EHOA.

**Conclusions:** Synovial inflammation and positivity of PD signal is more frequent in the subset of patients affected by EHOA respect to patients affected by HOA. The use of PD signal evaluation at TMC joint may represent an useful tool for the identification of patients affected by EHOA respect to the common HOA.

### Prevalence and prognostic significance of pulmonary embolism in patients hospitalized for acute exacerbation of chronic obstructive pulmonary disease

E. Blasi<sup>1</sup>, S. Baroncelli<sup>1</sup>, E. Antonielli<sup>1</sup>, G. Vasarri<sup>1</sup>, A. Crociani<sup>1</sup>, G. Cioni<sup>1</sup>, L. Corbo<sup>1</sup>, G. Zaccagnini<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

**Background:** Chronic obstructive pulmonary disease (COPD) is the fourth leading cause of death worldwide and pulmonary embolism (PE) is one of the causes of acute exacerbations of COPD (AECOPD). Clinical diagnosis of PE is difficult in patients with COPD because symptoms of PE may be nonspecific and other findings cannot reliably distinguish these two conditions. PE worsens the prognosis in patients with COPD.

**Methods:** This study aims to evaluate both the accuracy of the diagnostic score Wells, Wells simplified, Geneva and Geneva simplified and the prognostic validity of Bova score, PESI, sPESI and 2014 Model ESC in patients with AECOPD. Patients with AECOPD were selected from an Internal Medicine if they have performed a pulmonary CT angiography and/or lung scan detecting a possible PE as a cause of the exacerbation.

**Results:** We included 168 patients with AECOPD (56.6% male) of 76.1±8.8 years of age; 16.1% have shown clear signs of PE to the pulmonary CT angiography. The diagnostic power of the Wells Score showed AUC=0.96,  $p<0.0001$  and Wells Score simplified AUC=0.85,  $p<0.0001$ . D-Dimer ( $p<0.001$ ), cTnI ( $p<0.001$ ) and the right axial deviation (OR 4.28;  $p 0.05$ ) obtained by ECG have confirmed the association between with PE. PESI score is associated in a statistically significant manner to the poor prognosis in patients with PE, too. PE increase by 4 times the risk of death in patients hospitalized for AECOPD.

**Conclusions:** PE is a common condition in patients with AECOPD compared with general population and it has a significant impact on the prognosis of patients.

### Role of high-fructose and fast food diet in young adults with non-alcoholic steatohepatitis

L. Bonfrate<sup>1</sup>, F. Minerva<sup>2</sup>, S. Errico<sup>3</sup>, M. Amodio<sup>3</sup>, F. Mastroianni<sup>3</sup>, M. Errico<sup>3</sup>

<sup>1</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti, Italy; <sup>2</sup>Department of Biomedical Sciences and Human Oncology, University of Bari; <sup>3</sup>Department of Biomedical Sciences and Human Oncology, University of Bari; <sup>3</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti, Italy

**Background:** Non-alcoholic steatohepatitis (NASH) is characterized by fat, necroinflammation, fibrosis on liver biopsy in people without alcohol consumption. However, NASH patients might disclose erroneous dietary habits. We studied the alimentary patterns of young adults with histologically-proven NASH.

**Materials and Methods:** 18 patients underwent liver biopsy for chronic hypertransaminasemia (M:F=11:7; age 22±0.9 yrs SE; BMI 28.5±0.3 kg/mt<sup>2</sup>; abdominal girth 105.4±1.2 cm). After excluding exposure to occupational hepatotoxins or drugs, neoplasia; autoimmune, viral or celiac diseases, hypothyroidism, abnormal serum  $\gamma$ -antitripsin, ceruloplasmin, and hemochromatosis, the following examinations were performed: fasting serum glucose and insulin, ultrasonographic examination of liver and visceral fat with Real-time (RT) elastography (Samsung), histological scoring of NASH. A custom-designed questionnaire, MEDSTYLE was used to assess dietary patterns. The study group was sex-age matched with an healthy control group (n=134).

**Results:** Abdominal girth positively correlated with visceral fat and liver fibrosis ( $p<0.001$ ). Both fructose and saturated fat intake were positively correlated with insulinemia, visceral fat, BMI, liver fibrosis by RT-elastography. The percentage of daily energy from fructose and fats were 8% and 13%, respectively. NASH patients consumed significantly more fructose and "fast food" than controls ( $p<0.000001$ ).

**Conclusions:** "Fast food" diet enriched with high fructose and saturated fats affects liver and adipose tissue. Alimentary education is mandatory in young population to halt the dangerous progression of NASH and metabolic diseases.

### Familial epidemic cluster of parvovirus B19 induced aplastic crisis

R. Boni<sup>1</sup>, D. Bernaudo<sup>1</sup>, R. De Simone<sup>1</sup>, M. Liguori<sup>1</sup>, R. Suozzo<sup>1</sup>

<sup>1</sup>UOC Medicina 1, AORN A. Cardarelli, Napoli, Italy

**Background:** Human parvovirus (HPV) B19, transmitted by respiratory droplets is a single-stranded DNA virus from the Parvoviridae family. It causes the fifth disease in children and chronic anaemia in the immunocompromised host. HPV B19 infects erythroid progenitor cells and can lead to aplastic crisis (AC) in course of hereditary or acquired haemolytic anaemias.

**Case report:** A 27 y. o. woman, affected with hereditary spherocytosis (HS), was admitted for flu-like syndrome (without rash) and severe asthenia. Blood count: Hb 4.1 gr/dl, RBC 1.380.000/mmc, WBC 1.990/mmc, Plt 97.000/mmc, Ret 2.7%. Unconjugated bilirubin 2.22 mg/dl. Serum anti-HPV IgM and IgG were both positive (CLIA system). Few days later a sibling and a son of our patient, both affected with HS, were admitted in different wards with the same clinical picture. Our patient, as well her sibling and son, was treated with blood transfusions and recovered fully in 7 days.

**Discussion:** HPV-B19 induced AC is well known in paediatric population with hereditary haemolytic anaemias, whereas it is rarely reported in adults. Sometimes an AC can unmask a silent haemolytic anaemia. Familial epidemic clusters of AC have been described in patients (mostly children) with sickle cell anaemia, but they are very rare in course of HS: to our knowledge, this is the first case reported in Italy. Pancytopenia, moreover, is unusual in AC and not well studied: its etiology has been ascribed to haemophagocytic lymphohistiocytosis or autoimmunity. Leukopenia and thrombocytopenia in our patient recovered spontaneously, likewise anaemia.

### Castleman's disease with concurrently IgG4

R. Bonometti<sup>1</sup>, D. Sola<sup>2</sup>, M. Bellan<sup>3</sup>, A. Re<sup>1</sup>, M. Tran Minh<sup>1</sup>, A. Gualerzi<sup>1</sup>, A. Gibbin<sup>1</sup>, S. Bianco<sup>1</sup>, P.P. Sainaghi<sup>2</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Department of Translational Medicine, Università del Piemonte Orientale UPO, Novara; <sup>2</sup>Division of Internal Medicine, Immuno-rheumatology Unit, "AOU Maggiore della Carità", Novara; <sup>3</sup>Azienda Ospedaliera Sant'Andrea, Vercelli, Italy

**Case report:** A 56 year old present progressive dyspnea and peripheral edema within months. No significant medical history. On evaluation it is found several confluent skin lesions on the back and on the extensor surfaces of the forearms in absence of itching, multiple painless lateral cervical and inguinal lymphadenopathy, significant hepatosplenomegaly.

**Management:** Haematochemical demonstrated polyclonal hypergammaglobulinemia with elevation of the IgG fraction 4, elevation of systemic inflammatory markers, negativity of autoimmunity tests, non-selective proteinuria in the nephrotic range, with preserved renal function.

CT chest and abdomen demonstrated multiple mediastinal, abdominal, and inguinal lymphadenopathy. Excisional lymph node biopsy with histologic finding compatible with a diagnosis of Castleman's disease. HHV-8 and HIV-Ab were negative. Other significant elements: adrenal insufficiency, non-insulin dependent diabetes mellitus and periferic polyneuropathy. Treatment with rituximab resulted in a significant clinical improvement with a reduction in the volume of lymph nodes and proteinuria.

**Discussion:** In relation to the clinical picture, was formulated the diagnosis of Castleman's disease with concurrently hyper-IgG4 syndrome. The clinical aspect have made us suspected a POEMS syndrome. In literature, are described only few cases of POEMS associated with IgG4 monoclonal disease. In our case, however, we can not make a diagnosis of POEMS for the absence of the monoclonal component. We consider to keep a close follow up to assess the possible evolution of the disease.

### Management of patients with hypothyroidism, hospitalised or outpatients, in Internal Medicine: preliminary data from the FADOI-TIAMO study (Trattamento dell'Ipotiroidismo nell'Ambito della Medicina Interna Ospedaliera)

D. Brancato<sup>1</sup>, T.M. Attardo<sup>2</sup>, A. Fierro<sup>3</sup>, M. Nizzoli<sup>4</sup>, G. Gussoni<sup>5</sup>, E. Zagari<sup>6</sup>, R. Vettor<sup>6</sup>, M. Campanini<sup>7</sup>, A. Fontanella<sup>8</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale di Partinico (PA); <sup>2</sup>UOC Medicina Interna, Ospedale "Barone Lombardo" di Canicattì (AG); <sup>3</sup>UOC Medicina Interna, Ospedale "Pertini" di Roma; <sup>4</sup>UOC Medicina Interna, Ospedale "G.B. Morgagni" di Forlì; <sup>5</sup>Centro Studi Fondazione FADOI (MI); <sup>6</sup>Dept. Clinica Medica, Università di Padova; <sup>7</sup>UOC Medicina Interna, AOU di Novara, Presidente Fondazione FADOI; <sup>8</sup>UOC Medicina Interna, Ospedale "Fatebenefratelli" (NA), Presidente FADOI. On behalf of the FADOI-TIAMO Study Group, Italy

**Background and Purpose of the study:** The clinical profile of patients affected by hypothyroidism (HT) and managed in the Internal Medicine (IM) setting it is not well known so far. This study has the aims to take a real-life picture of these patients, to evaluate possible deviations from the evidence-based guidelines, and possibly improving the management by means of an educational program.

**Materials and Methods:** The FADOI-TIAMO study is designed as a replicate of two cross-sectional surveys (Phase 1 and 3) interspersed with an educational program (Phase 2) to be



conducted in 10 out of the 20 participating Centres. The data collection in Phases 1 and 3 will be based on the review of medical records of the last 30 consecutive patients with known or *de novo* diagnosis of HT (15 hospitalised and 15 as outpatients) observed in each Centre of IM (globally, 1200 patients).

**Results:** The study started in June 2016 and the Phase 2 is ongoing. In Phase 1, 620 pts were observed (mean age 68±15 years, 77% women). A known diagnosis of HT was present in 78.5% of cases, and among them TSH values had been reported only in 52.7% of the patients. Levothyroxine was used in 70% of patients (tablets in 95% of cases). Only 30% of patients took levothyroxine following ATA recommendations, or paying attention to the time of taking the drug compared to food.

**Conclusions:** Preliminary data from the FADOI-TIAMO study suggest that improvements for the management of HT in IM are needed. Complete results of the project, including effect of an educational program, will be available in 2018.

### Immigration in Taranto: from host city to the center HUB

O. Capparella<sup>1</sup>, M. Leone<sup>2</sup>, S. Sabato<sup>3</sup>, S. Lenti<sup>4</sup>, M. Carlucci<sup>5</sup>

<sup>1</sup>Director District Social Health 1, ASL Taranto; <sup>2</sup>Medical Director Hospital Central, ASL Taranto; <sup>3</sup>Specialist Sociologist, ASL Taranto; <sup>4</sup>Internal Medicine Grottaglie, ASL Taranto; <sup>5</sup>Health director, ASL Taranto, Italy

**Introduction:** Since June 2012 have increased immigrant landings on the shores of the Mediterranean and this has produced an increase of transit flows to southern Europe, touching deeply the city of Taranto.

**Materials and Methods:** It was incorporated an afferent to the Prefecture, Crisis Unit formed by the Local Authority, the Authorities of the Navy, from the Local Health (ASL), by the Police, by voluntary groups, by immigrant shelters, which enabled monitor what was happening after each landing and to arrange for resolution of critical issues. The ASL has appointed 2 Referrals company: Directorate of medical and Sociologist, with the task of providing increased access to the emergency room and hospital admissions, containment of contagious diseases, health management in hospitality and communication centers with the public.

**Results:** This strategy has reduced the number access to the emergency room and overcrowding at the landings (2014: 3.93%; 2015: 1.3%), reduce the number of distributing hospitalizations within the company's hospital network (2014: 0.68%; 2015: 12:59%), optimizing hospital-territory paths, hospital-reception at discharge centers.

**Conclusions:** The ASL organizational strategy has reduced the critical issues that would to emerge high influx of migrants, which sometimes were not notified in advance clinics and major diseases and emerging conditions. What to leave to the city of Taranto to become, from May 2016, in Puglia reference HUB with activation of a structure HOT SPOT.

### Venous thromboembolism in puerperium: a case of inferior vena cava thrombosis

M. Caprioli<sup>1</sup>, M. Ghersetti<sup>1</sup>, S. Grazioli<sup>1</sup>, E. Garlatti Costa<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone, Italy

**Introduction:** Postpartum ovarian vein thrombosis (OVT) is a rare complication of deliveries (0.02% for vaginal and 0.1% for cesarean). It occurs 2-15 days post partum and it may lead to fatal complications such as sepsis, inferior vena cava thrombosis (IVC), pulmonary embolism and death.

**Case report:** A 29-years old puerperal woman was admitted to Emergency Room with severe right lower abdominal pain, occurred one month after deliver. At physical examination, she had fever (40°C). Laboratory tests showed: WBC 5.14/mmc, Hb 8.5 g/dl, PLT 577000/mmc, creatinine 0.71 mg/dl, PCT 2.79 mcg/l. Abdomen CT was performed and it detected filling defects within inferior vena cava and right renal vein. Protein C and antithrombin III were normal, screening for factor V Leiden and II G20210A mutations, lupus anticoagulant, anticardiolipin antibodies, antinuclear antibody and antidouble stranded DNA were negative. We started treatment with UFH (unfractionated heparin) iv for 48

hours and then we switched to enoxaparin 100 UI/kg bid sc. At the same time, we started treatment with piperacillin/tazobactam (18 mg i.c. iv). She was discharged with apixaban 5 mg bid os.

**Discussion:** Pregnancy-related hypercoagulability is the most important risk factor for venous thromboembolism. However, thrombophilia screening should be considered since the results may affect the management of subsequent pregnancies. There are no specific therapeutic approaches implicated in the treatment of OVT. Short treatment with broad spectrum antibiotics and 3-6 months of anticoagulants are suggested.

### ACLAP: a fast score for a slow medicine. Uno studio retrospettivo per le migliori cure di fine vita nel malato internistico

M. Carbone<sup>1</sup>, C. Sgarlata<sup>2</sup>, P. Cavallo<sup>1</sup>, G. Brusco<sup>1</sup>, F. Costanzo<sup>1</sup>, V. Nieswandt<sup>1</sup>, A.L. Brucato<sup>3</sup>, L. Magnani<sup>1</sup>, M. Tiraboschi<sup>3</sup>

<sup>1</sup>UOC di Medicina Interna dell'Ospedale Civile di Voghera - ASST Pavia;

<sup>2</sup>UOC di Medicina Interna dell'Ospedale "San Martino" di Mede - ASST di Pavia;

<sup>3</sup>UOC di Medicina Interna dell'Ospedale Papa Giovanni XXIII di Bergamo - ASST Papa Giovanni XXIII, Bergamo, Italy

**Premesse e Scopo:** Le Medicine Interne ospitano spesso malati cronici in fase terminale la cui prognosi è tuttavia mal definita. Scopo di questa ricerca è la valutazione di alcuni indicatori di mortalità a 3 e 6 mesi dal ricovero di pz non oncologici fragili e polipatologici.

**Materiali e Metodi:** È stato applicato il protocollo ACLAP, ideato all'Ospedale Papa Giovanni XIII di Bergamo. Si è valutata la mortalità a 3-6 mesi in allettati con almeno 2 criteri tra: ClCr <35 ml/min, albuminemia <2.5 g/dL, ≥1 ricoveri nei 6 mesi precedenti. Sono stati reclutati 100pz ricoverati consecutivamente in Medicina all'Ospedale di Voghera, escludendo i deceduti durante la degenza (15) e gli oncologici (20).

**Risultati:** ACLAP è applicato a 65 pz (età 76.1): 7 deceduti a 3 mesi e 10 a 6 mesi dalla dimissione. È emersa una stretta correlazione tra mortalità a 6 mesi e allettamento (p<0.0001), demenza (p<0.0017), ipoalbuminemia (p<0.002), basso GFR (p<0.001) e ricoveri ricorrenti (p<0.001). Il RR di morte nei pz che soddisfano i criteri ACLAP è risultato di 1.5 a 3 mesi e 2.9 a 6 mesi (p=0.0007).

**Conclusioni:** La disponibilità di strumenti prognostici applicabili nella pratica clinica come supporto nelle scelte di fine vita consentirebbe di optare per approcci più conservativi con risvolti favorevoli sulla qualità di vita del malato e del care giver, sui costi e a volte anche sulla sopravvivenza. ACLAP si propone come utile strumento predittivo di mortalità a breve termine, integrando indicatori disponibili in ogni cartella clinica.

### Considerations on epidemiology of *Clostridium difficile* infections due to ribotype 027 at a tertiary hospital in Rome

P. Carfagna<sup>1</sup>, R. Caccese<sup>2</sup>, E. Bruno<sup>3</sup>, M. Diamanti<sup>3</sup>, P. Placanicca<sup>4</sup>, M. D'Ambrosio<sup>2</sup>, M. Gaudio<sup>4</sup>

<sup>1</sup>Medicina Interna, AO San Giovanni, Roma; <sup>2</sup>Centro Rianimazione, AO San Giovanni, Roma; <sup>3</sup>Direzione Sanitaria, AO San Giovanni, Roma; <sup>4</sup>Patologia Clinica, AO San Giovanni, Roma, Italy

**Introduction:** The disease spectrum caused by *Clostridium difficile* infection (CDI) ranges from antibiotic-associated diarrhea to life-threatening clinical manifestations. CDI is precipitated by antimicrobial therapy that causes a disruption of the normal colonic microbiota, predisposing to *C. difficile* intestinal colonization. In the last decade, a highly virulent strain of *Clostridium difficile*, called NAP1/027, have emerged, causing large outbreaks of severe, often fatal, colitis in North America and Europe. Recently we described a cluster of seven fulminant *Clostridium difficile* colitis in our ICU, of which four had CDI caused by the 027 strain. To date, little is known about CDI due to 027 strains in Italy.

**Methods:** From January to December 2016, we conducted a retrospective study in San Giovanni Hospital in order to ascertain risk factors for CDI, with particular attention to distribution of 027 strains.

**Results:** In the study period, we observed 60 cases of CDI, with a median age of 79.2 years, 48.3% were male. The majority of cases (53, 88.4%) had health-care associated infections (22, 36.6%, nursing-home-onset infections and 31, 51.6%, hospital acquired infections). NAP1/027 strain caused CDI in 39 (65%) patients and patients that acquired infection outside the hospital had a higher probability of a CDI caused by a 027 strain (23 vs 16,  $p=0.02$ ). Crude mortality was 28.3%.

**Conclusions:** Programs of antimicrobial stewardship and intervention to contain the spread of *C. difficile* ribotype 027 in nursing homes or long-term care facilities are needed.

### Azathioprine in the maintenance of steroid-free remission in inflammatory bowel disease patients: efficacy and safety in five years of follow-up

C. Cassieri<sup>1</sup>, R. Pica<sup>1</sup>, E.V. Avallone<sup>1</sup>, G. Brandimarte<sup>1</sup>, M. Zippi<sup>1</sup>, P. Crispino<sup>1</sup>, D. De Nitto<sup>1</sup>, G.P. Lecca<sup>1</sup>, P. Vernia<sup>1</sup>, P. Paoluzi<sup>1</sup>, E.S. Corazzieri<sup>1</sup>

<sup>1</sup>Internal Medicine and Medical Specialties, "Sapienza" University of Rome, Italy

**Background and Aims:** Azathioprine (AZA) is widely used for induction and maintenance of remission in steroid dependent patients with inflammatory bowel disease (IBD). We investigated its efficacy and safety in maintaining steroid-free remission in steroid dependent IBD patients five year after the institution of treatment.

**Methods:** Data from consecutive IBD outpatients referred in our Institution, between 1985-2014, were reviewed and all patients treated with AZA were included.

**Results:** Out of 2684 consecutive IBD outpatients, AZA was prescribed to 398 patients, 216 (54.3%) were affected by Crohn's disease (CD) and 182 (45.7%) by ulcerative colitis (UC). One hundred and thirty-eight patients with a follow-up <60 months were excluded from the study. Two hundred and sixty patients were evaluated, 145 (55.8%) with CD and 115 (44.2%) with UC. One hundred and forty-six (56.2%) were male. Five year after the institution of treatment, 135 (51.9%) patients still were in steroid-free remission (86 CD vs 49 UC, 59.3% and 42.6%,  $p=0.0087$ ), 71 (27.3%) had a relapse requiring retreatment with steroids (29 CD vs 42 UC, 20% and 36.5%,  $p=0.0033$ ), 54 (20.8%) discontinued the treatment due to side effects (30 CD vs 24 UC, 20.7% and 20.9%). Loss of response from 1<sup>st</sup> to 5<sup>th</sup> year of follow-up was low, about 18%.

**Conclusions:** Five year after the onset of treatment 52% of patients did not require further steroid courses. The maintenance of steroid-free remission was significantly higher in CD than in UC patients. The occurrence of side effects leading to the withdrawal of AZA treatment has been low.

### Clinical features in symptomatic women with chronic constitutional hypotension. A gender based retrospective study

S. Cencetti<sup>1</sup>, C. Luzzi<sup>2</sup>, K. Haidar Hassan<sup>3</sup>, A. Lagi<sup>4</sup>

<sup>1</sup>Syncope Unit, Piero Palagi, Hospital, Florence, Italy; <sup>2</sup>Emergency Unit, Santa Maria Nuova Hospital, Florence, Italy; <sup>3</sup>Lebanese University, Beirut, Liban; <sup>4</sup>Internal Medicine Unit, Villa Donatello Hospital, Florence, Italy

**Background and Purpose:** The association between chronic constitutional hypotension (CCH) and symptoms is uncertain both as pathophysiological mechanisms and statistical correlations. The study was set in order to search for any significant association between CCH and symptoms.

**Methods:** Data regarding only female patients were used, due to the higher incidence of CCH in their sex. The selected symptoms were studied in three groups of subjects: A and B groups, identified for systolic arterial pressure (SAP) <100 mmHg and diastolic blood pressure (DAP) <60 mmHg, and finally a C group of control consisting of normotensive women. Symptoms considered were: dizziness, anxiety and/or depression, asthenia and/or/ or fatigue, transient loss of consciousness (TLC), accidental falls, and body mass index (BMI). Data were compared between groups using an analysis of variance for continuous data (ANOVA) and the  $\chi^2$  test for categorical data.

**Results:** Patients with CCH had significant incidence of

anxiety/depression and asthenia/fatigue and TLC versus controls. Individuals with PAD <60 mmHg (group B) had a significance statistical difference of events also vs. the group A.

**Conclusions:** The women with CCH are symptomatic and have a lower BMI than controls. The low value of PAD defines a major risk group for TLC and a worse prognosis.

### Nail fold capillary abnormalities are associated with type 2 diabetes and correlated with lipid abnormalities

R. Cimino<sup>1</sup>, C. Pintaudi<sup>2</sup>, S. Giancotti<sup>2</sup>, S. Mazzuca<sup>3</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna AOPC Catanzaro; <sup>2</sup>S.O.C. Medicina Interna AOPC Catanzaro; <sup>3</sup>Responsabile Medicina Interna Casa di Cura Villa del Sole, Catanzaro, Italy

**Aims:** This study was performed to evaluate the nailfold microangiopathy severity in a population of type 2 diabetic patients (T2DM) with and without hyperlipemia.

**Methods:** Our study included 92 NIDDM patients, hospitalized in the Internal Medicine Unit between January and June 2015. We studied 49 Females and 43 Males, mean age 64.7 (range 40-91 years), mean duration of diabetes mellitus 15.84±1.07 years. Mean fasting plasma glucose was 160.8±51.7 mg/dl, HbA1c 8.2±1.6 mg%, total cholesterol 221.9±37.8 mg /dl, triglyceridemia 196.4±75.3 mg/dl, HDL-Cholesterol 49.8±12.5 mg/dl. The parameters examined in each patient were: BMI in Kg/m<sup>2</sup>, Waist-Hip-Ratio (WHR), microalbuminuria (20-300 mcg/min), arterial hypertension (>130/85 mmHg) or antihypertensive treatment.

**Results:** The results of determinations of triglycerides and total cholesterol showed hyperlipemia in 44 patients 48% (26 F, 18 M); but mostly, we found mixed hyperlipemia (increased levels of total cholesterol, increased levels of triglycerides, lower levels of HDL-cholesterol and Total-cholesterol - HDL-C ratio >5) in 10 F and 6 M (18%). Nail fold capillaroscopic analysis revealed that the decrease in number of capillary loops (<9/mm) was more marked in T2DM patients with hyperlipemia (82% vs 68%). Apical and venular dilatations, arteriovenous sludge, oedema, and fleabite juxtacapillary microhemorrhages were found especially in the patients with hyperlipidemia without statistical significance.

**Conclusions:** Patients with T2 DM and lipid abnormalities showed a significantly reduced capillary length (<200mm), increased NVC score and micro vascular complications.

### Ultrasound detected severity of non alcoholic fatty liver disease as an early marker of subclinical vascular atherosclerosis in primary prevention patients

G. Cioni<sup>1</sup>, R. Marcucci<sup>2</sup>, R. Abbate<sup>2</sup>, M. Boddì<sup>2</sup>

<sup>1</sup>Medicina Interna ad Alta Complessita Assistenziale 1, AOU Careggi, Firenze; <sup>2</sup>Dipartimento di Medicina Sperimentale e Clinica, AOU Careggi, Firenze, Italy

**Introduction:** We investigated the predictive power of ultrasound-detected severity of Non-Alcoholic Fatty Liver Disease (NAFLD) in identifying extra-coronary atherosclerosis, evaluated by carotid and femoral Intima-Media Thickness (IMT) and Pulse wave velocity (PWV), and endothelial dysfunction, in subjects with no history of cardiovascular disease.

**Materials and Methods:** We investigated NAFLD and vascular function in 220 subjects (M:100, F:120; 45.42±13.22 y.o), without history of cardiovascular (CV) event. NAFLD was evaluated by ultrasound according to a eight-point semi-quantitative severity score; endothelial function was assessed by peripheral arterial tonometry.

**Results:** C-IMT>0.9mm and f-IMT >1.2 were associated to a >3 NAFLD score (5.1±2.2 vs 2.4±1.7  $p<0.0001$  and 4.9±2.3 vs 2.5±1.9;  $p=0.001$ ), respectively and to a low endothelial function (0.41±0.07 vs 0.9±0.12;  $p=0.001$ ). ROC curves for NAFLD score showed higher AUC values in discriminating c-IMT>0.9mm and f-IMT>1.2mm, when compared to ROC curves for cardiovascular risk factors. In addition, ROC curves for NAFLD score showed higher AUC values in discriminating subjects with LnRHI<0.4, than ROC curves obtained for CRFs. At univariate and multivariate analysis, a >3 NAFLD score was significantly associated to peripheral atherosclerosis and endothelial dysfunction.

**Conclusions:** The presence of NAFLD can select subjects with morphological and functional subclinical extra-coronary atherosclerosis and endothelial dysfunction, independently of traditional CV risk profile. These findings could help in optimizing primary prevention.

### Chemotherapy-induced immunological changes in advanced breast cancer patients

G. Comolli<sup>1</sup>, M. Torchio<sup>2</sup>, B. Franceschetti<sup>2</sup>, I. Cassaniti<sup>1</sup>, I. Rapposelli<sup>3</sup>, P. Marone<sup>1</sup>, A. Bertolini<sup>4</sup>, F. Baldanti<sup>1</sup>, M. Danova<sup>2</sup>

<sup>1</sup>Laboratori di Ricerca Biotecnologie e Microbiologia e Virologia, Fondazione IRCCS San Matteo, Pavia; <sup>2</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia; <sup>3</sup>U.O.C. Oncologia Medica, ASST Valtellina e Alto Lario, Sondrio; <sup>4</sup>U.O.C. Oncologia Medica, ASST Valtellina e Alto Lario, Sondrio, Italy

**Background:** Anti-cancer agents may generate immunomodulation, opening possible clinical applications in breast cancer (BC), but variability in immune responses requires careful pt selection and monitoring immunocompetence still represents a technical challenge.

**Materials and Methods:** We utilized multi-color immunophenotyping by flow cytometry (FCM) using a whole-blood assay in 39 pts (34-74 yrs) with advanced BC undergoing standard-dose anthracycline/taxane-based CT and in 12 older healthy women, during a 6-months study, to analyze variations in CD8+ T-cells and effects of CT on different T-cell sub-populations.

**Results:** In BC pts absolute numbers of lymphocytes, T-cells and CD8+ T-cells significantly decreased during all CT program. In pts compared to controls there was a lower CD8-/CD8+ ratio, and the proportion of CD28-CD57+ cells remained higher for all 6 months. The number of CD28+CD57- and CD28-CD5+ cells decreased faster during CT than CD28+CD57+ and CD28-CD57+ cells, while only CD28-CD57- cells showed a significant reconstitutive capacity after 6 months. Anti-tumor CT in BC pts can restore the responsiveness of T cells and increase frequency and activation of native tumor specific T-cells.

**Conclusions:** Anthracycline/taxane-based CT elicits pronounced changes in BC pts immune system, in particular for senescent CD8+ T-cells. Multi-parameter FCM may be of help in the development of new combination protocols of CT + new immunotherapeutic agents.

### Direct oral anticoagulants for the treatment of acute venous thromboembolism in patients with cancer: a meta-analysis of randomized controlled trials

G. Conte<sup>1</sup>, M.N.D. Di Minno<sup>2</sup>, W. Ageno<sup>1</sup>, R. Lupoli<sup>2</sup>, N. Van Es<sup>3</sup>, H. Buller<sup>3</sup>, F. Dentali<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Clinica e Sperimentale, Università dell'Insubria, Varese, Italy; <sup>2</sup>Dipartimento di Scienze Biomediche Avanzate, Università Federico II, Napoli, Italy; <sup>3</sup>Department of Vascular Medicine, Academic Medical Center, Amsterdam, The Netherlands

**Background:** Previous meta-analyses assessed safety and efficacy of DOACs in patients with cancer and VTE. However, new evidence from subgroup analyses of pivotal clinical trials has become available, providing separate data on patients with a history of cancer and patients with active cancer.

**Methods:** We pooled the results of these studies to estimate efficacy and safety of the DOACs compared with VKA for the treatment of VTE in patients with active cancer and with history of cancer. Pooled risk ratios (RR) and 95% confidence intervals (CI) were calculated using a random effects model.

**Results:** Of 27,178 patients (13,593 receiving DOACs and 13,585 VKA) included in 6 randomized controlled trials, 1,496 (5.5%) had active cancer, and 1,605 (5.9%) had a history of cancer. DOACs were significantly more effective than VKA in patients with active cancer in preventing recurrent VTE (RR 0.62, 95% CI 0.43, 0.90) and as effective as VKA in patients with history of cancer (RR 0.50, 95% CI 0.23, 1.07) and without cancer (RR 1.03, 95% CI 0.87, 1.21). The incidence of major bleeding was significantly lower in the DOAC group than in the VKA group in patients without cancer, but not in patients with active cancer or

a history of cancer. The absence of heterogeneity among different subgroups suggests a better safety profile of DOACs in cancer patients.

**Conclusions:** The results suggest a favorable risk-benefit ratio with the use of DOACs in patients with VTE and active cancer. Ongoing studies comparing DOACs with the current standard of therapy, LMWH, will provide additional information.

### One- or two-week quadruple regimens containing tetracycline or clarithromycin are equally suitable for metronidazole resistant *Helicobacter pylori* infection

P. Crispino<sup>1</sup>, M. Zippi<sup>2</sup>, C. Cassieri<sup>3</sup>, R. Pica<sup>2</sup>, D. Colarusso<sup>1</sup>

<sup>1</sup>Internal and Emergency Medicine, San Giovanni Hospital, Lagonegro (PZ); <sup>2</sup>Gastroenterology Unit, Sandro Pertini Hospital, Rome; <sup>3</sup>Gastroenterology Unit Columbus hospital, Rome, Italy

**Background:** First-line *Helicobacter pylori*-eradication triple therapies fail to cure 30% of the patients and this evidence was proportional to the increase of primary resistance of *H. pylori* to common antibiotics. An optimal second line treatment regimen has not been established so far, but quadruple therapy has been proposed as the standard approach.

**Aim:** To compare efficacy of two different quadruple therapies, for antibiotic combination and length of treatment.

**Methods:** A total of 133 patients, in whom first-line triple therapies with omeprazole, metronidazole and amoxicillin or for 1 week failed to eradicate *H. pylori*-infection, were randomized to receive quadruple therapies for 1 or 2 weeks comprising omeprazole 20 mg bid, bismuth subcitrate 240 mg bid, amoxicillin 1g bid and clarithromycin 500 mg bid or tetracycline 500 mg bid. *H. pylori*-infection status was assessed at entry and at 2 months after the end of treatment period by histology and urea breath test.

**Results:** The overall *H. pylori*-eradication rate was 63% at ITT and 76% at PP analysis. At PP-analysis a one-week PPI-bismuth-amoxicillin based therapy with clarithromycin achieved similar result of eradication rate in comparison to the same treatment with tetracycline (79% vs 72%, p=ns). At PP-analysis, two-week regimens achieved higher, but not significantly, eradication rate in comparison to one-week regimens (79% vs 71%, p=ns).

**Conclusions:** A "second-line" one week PPI-based quadruple therapy with amoxicillin, bismuth and clarithromycin is better for *H. pylori* eradication in comparison to the alternative use of tetracycline.

### Treatment with anakinra in colchicine-resistant and cortico-dependent recurrent pericarditis: a multicenter randomized controlled clinical trial

D. Cumetti<sup>1</sup>, M. Imazio<sup>2</sup>, S. Maestroni<sup>1</sup>, A. Valenti<sup>1</sup>, A. Assolari<sup>1</sup>, M. Gattorno<sup>3</sup>, G. Lazaros<sup>4</sup>, M. Carraro<sup>2</sup>, M. Finetti<sup>3</sup>, A. Carobbio<sup>1</sup>, N. Ruperto<sup>3</sup>, R. Marcolongo<sup>5</sup>, M. Lorini<sup>1</sup>, G.L. Erre<sup>6</sup>, A. Martini<sup>3</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Internal Medicine Division, Research Foundation, and Clinical Pharmacology, Ospedale Papa Giovanni XXIII, Bergamo, Italy; <sup>2</sup>Cardiology Department, Maria Vittoria Hospital and Department of Public Health and Pediatrics, University of Torino, Torino, Italy; <sup>3</sup>Pediatric Department and Cardiology, Institute G. Gaslini, Genova, Italy; <sup>4</sup>Department of Cardiology, University of Athens Medical School, Hippokraton Hospital, Athens, Greece; <sup>5</sup>Clinical Immunology, Department of Medicine, Azienda Ospedaliera-Università, Padova, Italy; <sup>6</sup>Reumatology, Azienda Ospedaliero-Universitaria of Sassari, Italy

**Objectives:** To determine the safety and efficacy of anakinra, an interleukin1 $\beta$  recombinant receptor antagonist, in patients with cortico-dependent and colchicine-resistant recurrent pericarditis.

**Methods:** A multicenter double-blind placebo-controlled randomised withdrawal trial, enrolled 21 patients with a history  $\geq 3$  previous recurrences, elevation of C-reactive protein, colchicine resistant and corticosteroid dependence. Anakinra was administered at 2mg/kg/day up to 100mg for 2 months and then patients who responded with resolution of pericarditis were randomized to continue anakinra (N=11) or switched to placebo (N=10) for 6 months or until a pericarditis recurrence. Primary endpoints: recurrence rate and time to flare of pericarditis after randomization.

**Results:** All the 21 patients completed the open label phase with a complete response to the treatment.

Flares of pericarditis occurred in 9 of the 10 patients randomized to placebo and 2 of the 11 patients randomized to anakinra during the double-blind treatment ( $p=0.0019$ ). Median follow up was 14 months. Median flare-free survival (time to flare) was 72 days in the placebo group and was not reached in the anakinra group ( $p<.001$ ). During anakinra treatment 20 patients experienced transient local skin reactions, 1 herpes zoster, 3 transaminase elevation, and 1 ischemic optic neuropathy. No patient permanently discontinued the active drug; no adverse events during placebo treatment.

**Conclusions:** Inhibition of IL1 with anakinra is a rational alternative treatment for selected patients with severe corticoid-dependent and colchicine-resistant recurrent pericarditis.

### Assessing the role of apolipoprotein E polymorphism on the executive dysfunctions in Alzheimer's disease

G. D'onofrio<sup>1</sup>, D. Sancarlo<sup>1</sup>, F. Panza<sup>1</sup>, A. Mangiacotti<sup>1</sup>, C. Fernandez Garcia<sup>1</sup>, D. Seripa<sup>1</sup>, A. Greco<sup>1</sup>

<sup>1</sup>Complex Structure of Geriatrics, Department of Medical Sciences, IRCCS "Casa Sollievo della Sofferenza", San Giovanni Rotondo, Foggia, Italy

**Objectives:** To determine the role of the apolipoprotein E (APOE) 4 allele on executive dysfunctions in Alzheimer's disease (AD) patients.

**Materials and Methods:** A total of 182 AD patients attending Alzheimer's Evaluation Unit of Geriatrics, IRCCS "Casa Sollievo della Sofferenza" were included in the study. Of these patients, 132 were with executive dysfunctions (AD-ED) and 50 were without executive dysfunctions (AD-noED). All patients underwent APOE genotyping, Comprehensive Geriatric Assessment (CGA), Mini Mental State Examination (MMSE), Clinical Dementia Rating (CDR), Clock Drawing Test (CDT), and Frontal Assessment Battery (FAB).

**Results:** Percentage of females with AD-ED were significantly higher ( $p=0.044$ ). AD-ED showed significantly higher cognitive impairment in MMSE ( $p<0.0001$ ) and CDT ( $p=0.002$ ), a more severe stage of dementia (CDR,  $p=0.008$ ), and a worsening in several CGA domains (ADL,  $p=0.048$ ; IADL,  $p=0.015$ ; ESS,  $p=0.035$ ). A higher frequency of APOE 4/4, 3/4 and 2/4 genotypes was observed in patients with AD-ED (82.4%, 97.6%, and 66.7% respectively;  $p<0.0001$ ). Conversely, a lower frequency of APOE 3/3 and 2/2 genotypes was observed in patients with AD-ED (45.1% and 28.6% respectively;  $p<0.0001$ ).

**Conclusions:** If confirmed in wider samples of subjects, the observed differences suggested that the presence of ED in AD might identify two clinically and diagnostically distinct groups of patients. The observed results may have important clinical implications regarding mechanisms underlying these symptoms that may implicate a different treatment of these patients.

### A case of posterior reversible encephalopathy syndrome in Internal Medicine setting

D. Dell'Aera<sup>1</sup>, L. Porretti<sup>1</sup>, F. Calabretta<sup>1</sup>, M. Piombo<sup>1</sup>, A. Martignoni<sup>1</sup>, S. Perlini<sup>2</sup>

<sup>1</sup>SC Medicina Generale 2, Dipartimento Area Medica, Fondazione IRCCS Policlinico San Matteo, Pavia; <sup>2</sup>SC Medicina Generale 2, Dipartimento Area Medica, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

**Introduction:** Posterior reversible encephalopathy syndrome (PRES) is an acute neurological syndrome increasingly recognized in patients with renal failure, hypertension, hypotension, sepsis, autoimmune disorders, eclampsia and undergoing chemotherapy, i.e. patients admitted in the Internal Medicine setting. PRES is reversible if promptly treated.

**Case presentation:** A 74-year-old man undergoing neurorehabilitation after an ischemic stroke, was transferred to our institution with acute renal failure (eGFR 7ml/min) and a GCS equal to 5. He had an aortic endoprosthesis obstructing the ostium of the left renal artery, hypertension (that was initially treated with ACE inhibitors), oliguria and generalized tonic-clonic seizures. Head CT scan revealed bilateral cerebellar hypodensities. Serum glucose, ammonia, thyroid-stimulating hormone and electrolyte levels were normal; urine cultures were negative and blood cultures were positive for *Citrobac-*

*ter koseri*. Findings on brain MRI were consistent with PRES. Dialysis was not performed since kaliemia, azotemia and volemia were normal. Parenteral fluid support, dopamine infusion, meropenem and antihypertensive drugs were initiated. After 72 hours we observed a complete resolution of the neurological symptoms.

**Conclusions:** PRES can be easily misdiagnosed as stroke or toxic-metabolic encephalopathy. Two coexisting physiopathological mechanisms are involved: hyperperfusion from hypertensive encephalopathy and hypoperfusion from endothelial dysfunction induced by cytokines. Early diagnosis and treatment is essential for complete recovery.

### Use of rituximab/micofenolatemophetyle in severe pulmonary and cutaneous involvement in diffuse systemic sclerosis. Report from a single centre

P.M.L. Faggioli<sup>1</sup>, A.G. Gilardi<sup>1</sup>, A. Tamburello<sup>1</sup>, D. Bompane<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese UOC Medicina Ospedale di Legnano, Italy

**Introduction:** Although the rituximab (RTX) is used off label, recently numerous data are reported in the literature on its efficacy in the treatment of systemic sclerosis (SSc) not responsive to conventional immunosuppressive therapies, with extensive skin and lung involvement.

**Case report:** In our scleroderma unit in 2015-2016, 9 pts (5M/4F mean age 56 y) suffering from diffuse SSc from a median of 8 y of disease were treated with RTX. Their clinical features showed pulmonary alveolitis in more than 30% of the parenchyma, decreasing of DLCO/VA  $<70\%$ , 6MWT  $<80\%$  of previous, MRSS (Modified Rodnan Skin Score)  $>28$ . All pts were treated before with CYC ( $>6$  gr consecutively) without improvement. They received 1gr of RTX on day 1, 15 and every 6 months and a therapy with Mycophenolate (MFM) (1gr/day) was simultaneously started. The therapy was well tolerated, without side effects.

**Discussion:** During a follow up of 6 and 12 months we observed a reduction of pulmonary alveolitis in 8/9 pts, with persistence at a HRCT of a Honeycombing pattern compatible with a stabilized fibrosis. Also the pulmonary function tests steadily showed an improvement of DLCO/VA (78-82% vs 56-68%), and 6MWT raised 88% of previous. A significant reduction of MRSS was observed (16-18 vs  $>28$ ). No digital ulcers developed. An improvement was also noted on the arthritic component of the SSc and on pain.

**Conclusions:** RTX may be an alternative in the treatment of the most aggressive forms of SSc where immunosuppressants do not seem to be helpful. Further studies in larger series are needed to validate these preliminary data.

### The usefulness of severity scoring systems in community-acquired pneumonia: focus on "bounce back" cases after discharge from the emergency department

R. Ferrari<sup>1</sup>, M. Cavazza<sup>1</sup>, D. Agostinelli<sup>2</sup>, S. Tedeschi<sup>3</sup>, P. Viale<sup>3</sup>

<sup>1</sup>Medicina d'Urgenza e Pronto Soccorso, Policlinico Sant'Orsola - Malpighi, Dipartimento dell'Emergenza - Urgenza, Azienda Ospedaliero Universitaria, Bologna; <sup>2</sup>Medicina Interna, Policlinico Sant'Orsola - Malpighi, Dipartimento Medico della Continuità Assistenziale e delle Disabilità, Università degli Studi, Bologna; <sup>3</sup>Malattie Infettive, Policlinico Sant'Orsola - Malpighi di Bologna, Dipartimento delle Insufficienze d'Organo e dei Trapianti, Università degli Studi, Bologna, Italy

**Introduction:** Community-acquired pneumonia (CAP) is common cause of hospital admission and leading cause of increased morbidity and mortality. Severity scoring systems are used to predict risk profile, outcome, mortality and to help decisions about management strategies.

**Aims and Methods:** To analyze CAP rebound cases, once discharged from the emergency department (ED) and afterwards admitted, we conducted an observational study in the acute setting of a university teaching hospital and we analyzed in 1 year period demographic, medical, clinical and laboratory data, and the outcome.

**Results:** 249 patients were discharged with diagnosis of CAP; 80 (32.1%) resulted in the high-intermediate risk class according to CURB65 or CRB65. 12 subjects (4.8%) presented to the ED twice and were then admitted: at their first visit 5 were in the high-

intermediate risk group, just 4 at their admission. The rebound cohort showed some peculiar abnormalities in laboratory parameters (coagulation, renal function) and severe chest X-rays characteristics. None died in 30 days.

**Conclusions:** The power of CURB65 to predict mortality for CAP patients discharged home from the ED is not confirmed by our results; careful clinical judgement is irreplaceable in the management process. Many patients with a high-intermediate risk according to CURB65 can safely be treated as outpatients, according to adequate welfare conditions; we identified a subgroup of cases that should worth special attention and, therefore, a brief observation period in the ED before the final decision to safely discharge or admit.

### Health economic impact of hypoglycemia in a global population of patients with insulin-treated diabetes

A. Fontanella<sup>1</sup>, R. Aronson<sup>2</sup>, G. Galstyan<sup>3</sup>, S. Alsifri<sup>4</sup>, L. Elliot<sup>5</sup>, R. Kapur<sup>5</sup>, T.M. Attardo<sup>6</sup>, K. Khunti<sup>7</sup>, H. Investigator Group<sup>7</sup>

<sup>1</sup>Fatebenefratelli, Medicina Interna, Napoli, Italy; <sup>2</sup>LMC Diabetes & Endocrinology, Toronto, ON, Canada; <sup>3</sup>Endocrinology Research Center, Moscow, Russian Federation; <sup>4</sup>Al Hada Military Hospital, Taif, Saudi Arabia; <sup>5</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>6</sup>Ospedale di Canicattì (AG), Italy; <sup>7</sup>University of Leicester, Leicester, UK

HAT (Hypoglycemia Assessment Tool) was a non-interventional, multicenter, 6-month retrospective and 1-month prospective study of hypoglycemia events in 24 countries. Questionnaires and patient diaries (28-day prospective period) were completed by adults with type 1 (T1DM) or type 2 diabetes (T2DM) and using insulin for  $\geq 12$  months (N=27,585). Patient response to hypoglycemia had both direct and indirect economic impacts with regional variations in their extent. Direct economic impacts included an increased frequency of blood glucose self monitoring (69.7% [T1DM] and 60.9% [T2DM] of patients), increased hospitalization (T1DM 2.1%; T2DM 3.4% of patients) and increased medical contact in the month following hypoglycemia (T1DM 3.8%; T2DM 6.8% of patients). Indirect economic impacts included loss of productivity due to absence from work or study; 3.9% (T1DM) and 6.2% (T2DM) of patients took leave from work following hypoglycemia. Regional differences included higher hospital admissions in Latin America vs global data (5.2 and 6.8% vs 2.1 and 3.4% for T1DM and T2DM, respectively) and more clinic visits for SE Asia vs global data (5.7 and 12.6% vs 3.8 and 6.8%). However, increased blood glucose monitoring was lower for SE Asia vs global data (53.2 and 37.5% vs 69.7 and 60.9%). This study shows that hypoglycemia has a significant but variable impact on the economics of diabetes healthcare globally.

### Performance of LACE Index and assessment of functional status in predicting 30-days readmission of elderly admitted to Colleferro's Medicine Ward

A. Franco<sup>1</sup>, S. Di Simone<sup>1</sup>, M. Pellegrinotti<sup>1</sup>, R. Pastorelli<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, PO Colleferro, ASL RM 5, Italy

**Introduction:** R is considered an indicator of poor healthcare system. Dealing with planning for E ensure transition from acute medicine ward to home in the real world, often we need a model to predict risk of R and to obtain a good allocation of appropriate resources. In our analysis we consider 2 E groups discharged from Colleferro's Medicine ward in 2016: one with performed Li, CIRS, ADL, IADL, MMSE, Tinetti and caregiver consultation as a discharge care program (DCP), not the other. The outcome is assessing and reducing the risk of 30-days R.

**Materials and Methods:** In this analysis we compared 237 E (group A, 79 $\pm$ 8, 128F, 109M) discharged from Medicine ward with DCP with 256 E (group B, 78 $\pm$ 6, 138F, 118M) discharged without DCP. All E admitted from emergency department (ED), no difference in comorbidity. We consider previous 6 months-access in ED, clinical and laboratory variables during the admission.

**Results:** Median length of stay was 9 days in A vs 10 in B. Median Li 10 in A. 31 E in A were readmitted in Hospital vs 38 in B. The 30-days readmitted E were older, longer length of stay in ward, more drugs and high Li.

**Discussion:** In our analysis a poor functional status is associated

with high risk of 30-days R, especially if not using DCP. We consider DCP as a useful tool to identify predictor of R in frail E. Our model could be considered available to identify patients at high risk to receive interventions and potentially avoid R.

### Adherence to guidelines recommendations for heart failure treatment: data from a multicenter observational study (AGISCO study)

F. Gallucci<sup>1</sup>, L. Ferrara<sup>1</sup>, C. Mastrobuoni<sup>1</sup>, M. Schiavone<sup>1</sup>, U. Valentino<sup>1</sup>, G. Uomo<sup>1</sup>, A.S.G. Agisco Study Group<sup>2</sup>

<sup>1</sup>Internal Medicine Department, Unit 3, Cardarelli Hospital, Napoli; <sup>2</sup>FADOI Campania, Italy

**Objectives:** To assess: a) the degree of adherence to the latest guidelines recommendations in the prescription of drugs for heart failure (HF) and b) to compare the results with data from FASHION, a previous FADOI study.

**Materials and Methods:** Data about all pts with HF admitted to 29 Internal Medicine Units of Campania region associated to the FADOI, during June 2016, were collected in a specific excel folder (age, gender, heart rate, rhythm, NYHA class, LVEF, and therapy).

**Results:** Enrollment of 641 pts with HF, 51.01% F and 48.99% M, mean age 76.79 (range 35-97). 303 pts (47.27%) had atrial fibrillation (AF). NYHA class was indicated in 584 pts (91.10%); 500 pts (85.62%) were in NYHA functional class II-III and 56 (9.59%) in IV. In 434 (67.71) pts, LVEF was measured; 205 pts (47.24%) had LVEF<40% (HFref); 107 patients (24.65%) had a severely reduced LVEF<35%; 149 pts (34.33%) had LVEF=40-50% (mid-range new class - HFmrEF); 80 pts (18.43%) had LVEF>50% (HFpEF). BB were prescribed in 85.85% of pts with EF<40% (vs. 70.6% from FASHION); ACEI 71.22% (vs. 57.6%); ARB 17.07% (vs. 15.9%). MRA 54.21% of pts with EF<35% (vs. 47.3%); Ivabradine in 55.32 of pts with EF<35% in sinus rhythm (vs. 12.9%). 231 pts with AF assumed oral anticoagulants (OA) (76.24% vs. 67.3%) while 18.81% had antiplatelet. 4.95% neither OA nor antiplatelet.

**Conclusions:** The study showed that still persists suboptimal adherence to prescribing guidelines, including the use of anticoagulant drugs in patients with AF, even if an improvement over the findings of a previous regional study was registered.

### Faecal calprotectin in Behcet's disease

S. Giancotti<sup>1</sup>, S. Mazza<sup>2</sup>, C. Pintaudi<sup>1</sup>, V. Emanuele<sup>3</sup>, M. Calabria<sup>1</sup>, A. Rotundo<sup>4</sup>, I. Felicetta<sup>5</sup>, R. Cimino<sup>6</sup>

<sup>1</sup>S.O.C. Medicina Generale AOPC Catanzaro; <sup>2</sup>Responsabile Medicina Interna Casa di Cura Villa del Sole, Catanzaro; <sup>3</sup>Cardiologia UMG Catanzaro; <sup>4</sup>I.P. S.O.C. Medicina Generale AOPC Catanzaro; <sup>5</sup>I.P. S.O.C. Medicina Generale AOPC Catanzaro; <sup>6</sup>Direttore S.O.C. Medicina Generale AOPC Catanzaro, Italy

Faecal calprotectin (FC) is a validated biomarker of inflammatory bowel disease. The aim of the study was to evaluate the association between FC and Gastrointestinal involvement in BD and to determine whether FC helps predict active disease.

**Methods:** We collected 16 patients diagnosed with BD following International Criteria for Behcet Disease between 2015 and 2016 and followed at regional hospital Arnaldo Pugliese, Catanzaro. All the patients had the certificate of Rare Disease (RC0210) Of 16 patients with BD, 14(87,5%) were female and 2 (12,5%) were male (sex ratio 7:1). The mean age was 44 years (range, 24-62years). Laboratory findings, demographics, symptoms and signs of gastrointestinal involvement were collected from all patients. FC was investigated at least 2 times, and we used 150  $\mu$ g/g as the cut-off for a positive FC level.

**Results:** An In BD patient with gastrointestinal involvement (9-56,25%) the FC is reliable >200  $\mu$ g/g in all the 9 pts. and shows only limited variation upon repeated testing. The mean FC was 800 $\pm$ 400  $\mu$ g/g among symptomatic patients with ulcer at colonoscopy (n=4) and 239 $\pm$ 223  $\mu$ g/g among symptomatic patients without ulcer at colonoscopy (n=5). None of the patients were receiving NSAIDs that could increase FC levels. FC levels are <150  $\mu$ g/g in BD patients without gastrointestinal involvement. There is a correlation between FC and serum CRP levels (p<0,1).

**Conclusions:** Faecal levels of calprotectin in BD are stable over time,

are associated with gastrointestinal disease and a high FC level may be a useful tool for ruling out active gastrointestinal lesions.

### Double-blind mealtime faster-acting insulin aspart versus insulin aspart in basal-bolus improves glycemic control in T1D: the Onset® 1 trial

G. Grassi<sup>1</sup>, D. Russell-Jones<sup>2</sup>, B. Bode<sup>3</sup>, C. De Block<sup>4</sup>, E. Franek<sup>5</sup>, S. Heller<sup>6</sup>, C. Mathieu<sup>7</sup>, A. Phili-Tsimikas<sup>8</sup>, A. Rose<sup>9</sup>, V. Woo<sup>10</sup>, A. Osterskov<sup>11</sup>, T. Grau<sup>12</sup>, M. Mancuso<sup>13</sup>

<sup>1</sup>S.C.D.U. Endocrinologia, Diabetologia e Metabolismo A.O. Città della Salute e della Scienza, Torino, Italy; <sup>2</sup>Diabetes and Endocrinology, Royal Surrey County Hospital and University of Surrey, Guildford, UK; <sup>3</sup>Atlanta Diabetes Associates, Atlanta, GA, USA; <sup>4</sup>Department of Endocrinology, Diabetology, and Metabolism, Antwerp University Hospital, Antwerp, Belgium; <sup>5</sup>Mossakowski Clinical Research Center, Polish Academy of Sciences, Warsaw, Poland; <sup>6</sup>University of Sheffield, Sheffield, UK; <sup>7</sup>Laboratory and Clinic of Experimental Medicine and Endocrinology, University Hospital Leuven, Catholic University of Leuven, Leuven, Belgium; <sup>8</sup>Scripps Whittier Diabetes Institute, Scripps Health, San Diego, CA, USA; <sup>9</sup>Institute of Diabetes Research, Münster, Germany; <sup>10</sup>Section of Endocrinology and Metabolism, University of Manitoba, Winnipeg, MB, Canada; <sup>11</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>12</sup>International Diabetes Center at Park Nicollet, Minneapolis, MN, USA; <sup>13</sup>Novo Nordisk Spa, Roma, Italy

Limiting excursions of postprandial glucose (PPG) is desirable in people with diabetes. This multicenter, treat-to-target, phase 3 trial evaluated the efficacy of faster-acting insulin aspart (faster aspart) in T1D. Primary endpoint was change from baseline in HbA1c after 26 weeks treatment. Post run-in, adult subjects were randomized to double-blind mealtime faster aspart (n=381), or insulin aspart (IAsp; n=380), or open-label post-meal faster aspart (n=382); each with insulin detemir. HbA1c was reduced for faster aspart and IAsp, confirming non-inferiority to IAsp for both mealtime and postmeal dosing (est. treatment diff. [ETD], % [95% CI]: mealtime, -0.15 [-0.23; -0.07]); post-meal, 0.04 [-0.04; 0.12]); HbA1c reduction was significantly greater for mealtime faster aspart versus IAsp. Superiority to IAsp for 2 h PPG increment during a standardized meal test was confirmed for faster aspart (ETD: -0.67 [-1.29; -0.04] mmol/L; -12.01 [-23.33; -0.70] mg/dL). 1 h PPG increment was also reduced (ETD: -1.18 [-1.65; -0.71] mmol/L; -21.21 [-29.65; -12.77] mg/dL). No significant differences in overall rate of severe or confirmed hypoglycemic episodes (plasma glucose <3.1 mmol/L [56 mg/dL]). In summary, faster aspart effectively improved glycemic control with superior PPG control for mealtime faster aspart versus IAsp, representing a clinical advance in treating T1D.

### Atherogenic lipoprotein subfractions and carotid atherosclerosis in menopausal women

A. Iannuzzi<sup>1</sup>, M. Gentile<sup>2</sup>, G. Iannuzzo<sup>2</sup>, G. Covetti<sup>1</sup>, S. Panico<sup>2</sup>, A. Mattiello<sup>2</sup>, E. Lafata<sup>2</sup>, L. D'elia<sup>2</sup>, M. De Michele<sup>3</sup>, P. Rubba<sup>2</sup>

<sup>1</sup>Department of Medicine and Medical Specialties, A. Cardarelli Hospital, Naples; <sup>2</sup>Department of Clinical Medicine and Surgery, Federico II University, Naples; <sup>3</sup>Division of Cardiology, Moscati Hospital, Aversa, Italy

**Objectives:** The purpose of this study was to evaluate the relationship between cholesterol contained in Very-Low-Density-Lipoproteins (VLDL-C), Intermediate-Density-Lipoproteins (IDL-C), Low-Density-Lipoproteins (LDL-C), High-Density-Lipoproteins (HDL-C) and carotid intima-media thickness (IMT) and carotid plaques, in post-menopausal women.

**Patients and Methods:** 228 post-menopausal women (63.1±8.2 years) who participated to the Atena Project underwent clinical, biochemical (including the assay of lipoproteins using the Lipoprint® system) and carotid intima-media thickness ultrasound tests.

**Results:** 43% of women had carotid plaques. Among subfractions of the major lipoprotein classes VLDL-C had a statistically significant linear association with carotid IMT (p <0.001), that remained significant after adjustment for age, smoking, systolic blood pressure, glucose and body mass index (r<sup>2</sup>=0.20, p<0.05). Tertiles III of IDL-C and Triglyceride-Rich-Lipoproteins (TRLs, i.e. VLDL-C + IDL-C) were associated with a risk of presenting with carotid

plaque in the common carotid doubled that of tertile I (OR 2.52, 95% CI 1.21-5.32, p<0.02 and OR 2.30, 95% CI 1.05 -5.01, p <0.05, respectively), after correction for age, smoking, systolic blood pressure, glucose and body mass index.

**Conclusions:** This study demonstrates that high concentrations of IDL-C and TRLs are independently associated with the risk of carotid plaque in post-menopausal women. Their assay represents a useful tool for improving our knowledge on the role of different classes of lipoproteins in atherosclerosis.

### When kidney and blood PRESSure are out of hand

A. Lasagni<sup>1</sup>, A. Cagnin<sup>2</sup>, B. Girolami<sup>1</sup>, A. Guaglianone<sup>3</sup>, L. Fabris<sup>1</sup>, G. Baggio<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, Padua University Hospital, Padua; <sup>2</sup>Neurological Unit, Padua University Hospital, Padua; <sup>3</sup>Psychiatric Unit, Padua University Hospital, Padua, Italy

A 22-year-old male, cannabinoid and cocaine abuser, was led to the Emergency Room for an episode of acute psychosis. At the initial assessment blood pressure (BP) was 120/80 mmHg and creatinine 127 umol/L. Once sedated, he was admitted to the Psychiatry Unit where he did not need any further treatment. New biochemistry revealed creatinine 1090 umol/L, CPK 14800 U/L, myoglobin 2079ug/L. He was therefore transferred to the Medicine Unit where he suffered from uncontrolled hypertension, vomit, headache and hypertensive retinopathy. Renal function improved within one week following fluid infusion and antihypertensive therapy. However, he self-discharged, but, due to a second severe psychosis episode, he was again hospitalized. According to CT scan, brain MRI showed widespread bilateral alterations of the white matter in the parietal-occipital and frontal posterior regions, involving subcortical fibers. Ruled out a putative infectious etiology by cerebrospinal fluid analysis, the radiological findings were consistent with Posterior Reversible Encefalopathy Syndrome (PRES). PRES is a feared and unexpected complication of several diseases, including uncontrolled hypertension. PRES is characterized by reversible subcortical vasogenic brain edema with bilateral parietal-occipital involvement. Diagnosis relies on clinical and typical MRI findings, after assessment of triggering factors. Overall, these data highlight a drug abuser presenting rhabdomyolysis complicated by acute kidney injury and secondary hypertension leading to PRES.

### The role of insulin treatment as performance and outcomes: Project D-TIME

S. Lenti<sup>1</sup>, S. Francioni<sup>1</sup>, G. Rampi<sup>2</sup>, M. Felici<sup>1</sup>, A. Zuccone<sup>1</sup>, G. Parca<sup>2</sup>, S. Papi<sup>2</sup>, F. Dell'artino<sup>3</sup>, F. Innocenti<sup>3</sup>, I. Lacroce<sup>3</sup>, V. Porcellotti<sup>3</sup>, S. Riccetti<sup>3</sup>, L. Panicucci<sup>3</sup>, L. Picchioni<sup>3</sup>, M. Spighi<sup>3</sup>

<sup>1</sup>U.O.C. Geriatrics, San Donato Hospital Arezzo, Usl sud est Toscana; <sup>2</sup>U.O.C. Internal Medicine, San Donato Hospital Arezzo, Usl sud est Toscana;

<sup>3</sup>Degree in Nursing, University of Siena, Arezzo, Italy

**Introduction:** The D-Time project aims to improve the management of patients in the near insulin therapy at discharge, through proper education about the use of these therapies both the patient and the caregiver. Also it facilitates the work of the team to optimize time and resources.

**Aim of the study:** Assess whether this educational model can better define the team's performance and get results in terms of outcomes.

**Materials and Methods:** From March to May 2016 they were enrolled 154 hospitalized patients: 80 were educated with D-Time (questionnaires and cards) and 74 with Basic Education (interview). Diabetes in 70% for over 10 years, with mean age 78 years, 58% in insulin therapy and 42% with oral agents, with polypharmacy and polypharmacy. 62% in education has been made to the patient and 38% to the caregiver. Hb glyated average of 8.2 gr/dl at discharge. They were reassessed after 3 months and 6 months from the corporate database data.

**Results:** After 3 months the D-Time versus Basic Education revealed: Hb glyated (7.4 vs 8.0), re-admissions (19% vs 35%), deaths (2% vs 5%), hypoglycemia (2% vs 8%). After 6 months:

Hb glycated (7 vs 8), re-admissions (16% vs 44%), deaths (6% vs 16%), hypoglycemia (2% vs 18).

**Conclusions:** With the structuring of the D-Time at discharge, we saw how the training and patient/caregiver training face to improve the performance of insulin therapy safely; furthermore our data showed that this model affected over time not only on diabetes care emergencies but also on the outcomes of morbidity and mortality.

### Epidemiology, clinical presentation, diagnosis and treatment of acquired hemophilia: clinical experience of 15 cases

A. Mameli<sup>1</sup>, M. Porru<sup>1</sup>, C. Corrias<sup>1</sup>, E. Cianchetti<sup>1</sup>, F. Marongiu<sup>1</sup>

<sup>1</sup>Medicina Interna ed Emocoagulopatie, Policlinico Universitario di Monserrato dell'Università di Cagliari, Italy

**Introduction:** Acquired hemophilia A is a rare but severe autoimmune bleeding disorder characterized by the presence of auto-antibodies directed against clotting factor VIII. Acquired hemophilia A . May be idiopathic or associated with several conditions, such as postpartum, autoimmune diseases, malignancies or drugs. Beside the elimination of the underlying disorder, the therapeutic approach to AHA should be directed toward the control of acute bleed and the eradication of FVIII autoantibody production.

**Materials and Methods:** We retrospectively analyzed 15 patients with acquired hemophilia admitted in our department of Internal Medicine.

**Results:** The median age was 55 years (range 15-91).Thyroiditis and diabetes are commonly associated; in 3 cases the underlying condition was postpartum status. About 27% of cases had no identifiable underlying condition. The most frequent presenting symptom was spontaneous haemorrhage of soft tissues, skin or joints. Severe anemia required red blood cell transfusion in 9 patients. As a hemostatic therapy, rFVIIa was used in 8 patients, while activated prothrombin complex concentrate in 7 patients. The immunosuppressive treatment was conducted with prednisone or combined prednisone/cyclophosphamid or Rituximab. Un patient died of a treatment -related disorder. None of these patients died of bleeding complications.

**Conclusions:** In this study we report 15 cases of autoimmune factor VIII inhibitors demonstrating the heterogeneity of this disease from pathogenic, clinical, therapeutic and prognostic points of view.

### The blue man

C. Mancini<sup>1</sup>, G.C. Del Buono<sup>1</sup>, C. Giordano<sup>2</sup>, C. Politi<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Isernia; <sup>2</sup>U.O.C. Ematologia Ospedale Riuniti, Foggia, Italy

**Background and Purpose of the study:** The 'acquired haemophilia' is a rare, serious disease that needs early diagnosis and treatment.

**Materials and Methods:** A 79 yr patient, with hypertension, DM2, permanent AF, previous ischemic stroke without sequelae, in ASA therapy, was hospitalized for fatigue, skin and muscle bruising in absence of trauma, recent ear pavilion bleeding and left sub-mandibular hematoma. Coagulation assessment revealed constant lengthening of aPTT (93.7>91.2" ratio 2.86), normal PT and slight platelet decrease (129,000 /mmc); moderate anemia (HB 12>9,6gr); C prot, S prot, dimers, fibrinogen, LAC, ATIII, APC resistance were normal. Coombs D/I neg. For suspected haemophilia were performed Fact V (98%), VIII (115%), IX (73%), X (108%), XII (77%) dosage. The mixing test revealed partial correction in aPTT at room temperature but not at 37°C 2h after. TC total body was negative for malignancy and deep hematoma.

**Results:** At the laboratory control, FVIII was greatly reduced (1.10%) and was detected the presence of specific inhibitors (35UB/ml), with confirmation of the suspected diagnosis. We have not prescribed rFVIIa for Hb stability, but immunosuppressive therapy (prednisone + cyclophosphamide), producing a marked improvement in clinical and biochemical evidence (absence of inhibitor) at the patient's outpatient follow-up.

**Conclusions:** In presence of minor hemorrhagic manifestations, suspected diagnosis of acquired haemophilia should be pursued to quickly establish treatment and avoid potentially fatal hemorrhagic emergencies.

### Efficacy of the association Fortigel and Fucoidan on knee osteoarthritis. Preliminary results

L.S. Martin-Martin<sup>1</sup>, P.L. Beatrice<sup>2</sup>, C. La Medica<sup>3</sup>, G. Melis<sup>4</sup>, G. Nuvoli<sup>5</sup>, V. Piccinni<sup>6</sup>, M. Pietrapertosa<sup>7</sup>, B. Vincenti<sup>8</sup>, V. Vinicola<sup>9</sup>, U. Massafra<sup>10</sup>

<sup>1</sup>SC Medicina Interna, Ospedale "Regina Apostolorum", Albano Laziale (RM); <sup>2</sup>Dipartimento di Ortopedia, Ospedale "San Giovanni Calibita-Fatebenefratelli", Roma; <sup>3</sup>Dipartimento di Ortopedia, Ospedale "Madre Giuseppina Vannini", Roma; <sup>4</sup>Dipartimento di Ortopedia, Ospedale Marino, Alghero (SS); <sup>5</sup>Dipartimento di Reumatologia, Sassari; <sup>6</sup>Dipartimento di Ortopedia, Roma; <sup>7</sup>Ortopedia ASL RMG, Roma; <sup>8</sup>Ortopedia ASL RMH, Roma; <sup>9</sup>Dipartimento di Reumatologia, IRCSS "Santa Lucia", Roma; <sup>10</sup>SC di Medicina Interna, Ospedale "San Pietro-Fatebenefratelli", Roma, Italy

**Purpose:** We have conducted a preliminary randomized multicenter (n=9) observational study comparing the effects of an association of Fortigel® and Fucoidan (ACTEN®) versus a commonly therapeutically used formulation based on Glucosamine, Chondroitin Sulfate, Hyaluronic Acid and Vitamin C (COMBIART).

**Patients and Methods:** The protocol was administered over a 12-weeks period in a population (n=126) aged 40-65 years, with mild-to-moderate osteoarthritis (OA) of the knee (grade 2-3 of Kellgren Lawrence grading scale). Safety was measured by monitoring adverse events. Efficacy was measured by grading evaluations, at basal, 1 month and 3 months controls, of the Visual Analog Scale (VAS) and the Lequesne algofunctional index for articular functionality.

**Results:** Both groups showed an important reduction (P<0.0001) in the mean visual analog scale values at T1 (28.5% ACTEN®, 21.3% COMBIART at 1 month) and T3 (49.4% ACTEN®, 40.1% COMBIART at 3 months), and a marked reduction in the Lequesne algofunctional index means (P<0.0001) (ACTEN® 28.9% T1 44.9% T3, COMBIART T1 21.3% T3 37%). The effect seems to be time dependent, as the mean values decrease further for both parameters from T1 to T2 (P<0.0001, for VAS for both groups; P 0.0011 for ACTEN® group; P 0.0064 Control group).

**Conclusions:** Fortigel® (10gr) and Fucoidan (100 mg) (ACTEN®) taken as oral nutritional supplements have a significant impact as therapeutic intervention for knee osteoarthritis as indicated by the marked decrease in VAS and LAI values over the course of the treatment. These interesting preliminary data will be further investigated on a larger scale.

### Rate and duration of hospitalization for acute pulmonary embolism in real-world clinical practice of different countries: analysis from the RIETE registry

D. Mastroiacovo<sup>1</sup>, F. Dentali<sup>2</sup>, P. Di Micco<sup>3</sup>, S. Soler<sup>4</sup>, J.C. Sahuquillo<sup>5</sup>, P. Verhamme<sup>6</sup>, A. Fidalgo<sup>7</sup>, J.B. Lopez-Saez<sup>8</sup>, A. Skride<sup>9</sup>, M. Monreal<sup>10</sup>

<sup>1</sup>Angiology Unit, Ospedale SS. Filippo e Nicola, Avezzano, Italy; <sup>2</sup>Department of Clinical Medicine, Insubria University, Varese, Italy; <sup>3</sup>Department of Internal Medicine and Emergency Room, Ospedale Buon Consiglio Fatebenefratelli, Naples, Italy; <sup>4</sup>Department of Internal Medicine, Hospital Olot i Comarcal de la Garrotxa, Gerona, Spain; <sup>5</sup>Department of Internal Medicine, Hospital Municipal de Badalona, Barcelona, Spain; <sup>6</sup>Vascular Medicine and Haemostasis, University of Leuven, Leuven, Belgium; <sup>7</sup>Department of Internal Medicine, Hospital Universitario de Salamanca, Salamanca, Spain; <sup>8</sup>Department of Internal Medicine, Hospital Universitario de Puerto Real, Cádiz, Spain; <sup>9</sup>Department of Cardiology, Ospedale Pauls Stradins Clinical University Hospital, Riga, Latvia; <sup>10</sup>Department of Internal Medicine, Hospital Universitario Germans Trias i Pujol de Badalona, Barcelona

**Background:** Recently, validated clinical prognostic scores led to the identification of low-risk pulmonary embolism (PE) patients eligible for outpatient treatment. Growing evidence suggests outpatient care or early discharge as feasible and safe as traditional inpatient care for carefully selected PE patients.

**Aim of the study:** To assess the proportion of outpatients with acute PE initially treated in-hospital, mean duration of hospitalization and to identify predictors for home treatment.

**Methods:** Data from patients enrolled in several countries participating in the RIETE registry from January 2006 to December 2013 were included.

**Results:** 7685 consecutive outpatients with acute PE were included. Among these, the mean PESI score was 89 points (SD 34), and 42% of patients had a low-risk PESI score (3234). In

total, 7.7% of low-risk PE patients were fully treated at home and 63.5% of low-risk PE patients were hospitalized for  $\leq 5$  days. In the whole population, the mean length-of-hospital-stay was 10 (SD 15) days. On multivariate analysis, a low PESI score ( $< 85$ ) was not independently associated neither with the decision of home treatment nor the early discharge of low-risk PE patients.

**Conclusions:** Overall, from 2006 to 2013, only one in every thirteen patients eligible for home treatment according to the PESI score was treated at home and approximately two in every three low-risk patients were hospitalized for  $\leq 5$  days. Highly variable approaches were observed among different countries.

### Efficacy of rituximab in adult-onset asthma and periocular xanthogranuloma syndrome associated with IgG4-related disease: a case report

M. Mattioli<sup>1</sup>, A. Angeletti<sup>1</sup>, D. Olivari<sup>1</sup>, G. Patrignoni<sup>1</sup>, G. Goteri<sup>2</sup>, G. Pomponio<sup>3</sup>, A. Gabrielli<sup>1</sup>

<sup>1</sup>Dipartimento Scienze Cliniche e Molecolari, Università Politecnica delle Marche, Ancona; <sup>2</sup>Anatomia Patologica, Azienda Ospedaliero-Universitaria "Ospedali Riuniti", Ancona; <sup>3</sup>Clinica Medica, Azienda Ospedaliero-Universitaria "Ospedali Riuniti", Ancona, Italy

**Case presentation:** A 50-year-old woman was admitted on October 2016 to our department for sicca syndrome, slight pain and bilateral enlargement of the parotids; more recently a progressive bilateral periorbital swelling began. In 2015 Sjogren's Syndrome has been diagnosed, according to clinical and histopathological criteria; however, serum markers of disease were persistently negative. Inconstant low-doses steroids, were prescribed. In her past medical history a mild allergic asthma. Physical examination revealed bilateral yellow xanthelasma of eyelid. A MRI scan showed diffuse salivary and lacrimal gland enlargement together with the presence of multiple intra-glandular lymph nodes. A CT-scan of the chest revealed a nodular lesion at the inferior right pulmonary lobe, in continuation to diaphragmatic pleura, 3 cm diameters large with irregular margins. An endoscopic biopsy failed to obtain diagnostic material.

**Discussion:** The revision of the literature allowed us to hypothesize a rare association of IgG4-related disease to Adult-onset Asthma and PeriOcular xanthogranuloma syndrome (AAPOX); since 2007, only five cases of concomitant disease were described. In peripheral blood we measured increased plasmablast concentration (2,713/ml). Serum IgG4 were actually elevated in our patient (6.64 g/L with normal values  $< 2.01$ ) and the biopsy of an intraparotid lymph node confirmed the diagnosis. One single cycle of Rituximab (two 1g infusion separated by 15d) resulted in an improvement of exocrine gland enlargement and lung nodule. No adverse effects were observed.

### Nucleos(t)ide analogues in the treatment of hepatitis B virus related mixed cryoglobulinemia: a multicenter open label study

E. Mauro<sup>1</sup>, T. Urraro<sup>2</sup>, L. Castelnovo<sup>3</sup>, M. Visentin<sup>4</sup>, A.L. Zignego<sup>5</sup>, G. Pozzato<sup>6</sup>, L. Quartuccio<sup>7</sup>, C. Mazzaro<sup>8</sup>

<sup>1</sup>Department of Internal Medicine, Pordenone General Hospital, Pordenone; <sup>2</sup>Centro Manifestazioni Sistemiche da Virus Epatitici, University of Florence, Firenze; <sup>3</sup>Department of Internal Medicine, Saronno General Hospital, Varese; <sup>4</sup>Department of Clinical Medicine, Sapienza Università di Roma; <sup>5</sup>Centro Manifestazioni Sistemiche da Virus Epatitici, University of Florence, Firenze; <sup>6</sup>Department of Medicine and Surgical Sciences, University of Trieste; <sup>7</sup>Rheumatology Clinic, DPMSC, University of Udine; <sup>8</sup>Clinical of Experimental Onco-Haematology Unit, CRO Aviano, Pordenone, Italy

**Background and Aim:** Hepatitis B Virus (HBV) related Mixed Cryoglobulinemia(MC) is rare and its treatment is not defined. Data on the nucleos(t)ide analogues (NAs) therapy in HBV related MC are few. 12 patients with HBV associated MC, were treated with NAs, 10 patients received Entecavir and 2 Tenofovir. Entecavir therapy was administered continuously for 20 months median (12–58 months). No immunosuppressive drugs were added.

**Results:** Clinical manifestations were: purpura in 9 cases, arthralgias in 4, ulcers on the leg in 1, peripheral neuropathy in 3 cases. Chronic hepatitis were found in 7 cases, liver cirrhosis in 1 case, membrano-proliferative glomerulonephritis(MPGN) in 1 case. Type

II cryoglobulinemia was showed in 9 cases and type III in 1 case. All patients were HBs Ag+ and HBV-DNA +, while anti-HbeAg+ in 6 cases. During treatment with Entecavir at the end of study, HBV-DNA became undetectable viremia in all patients, while HBsAg remained positive in all cases. Purpura, arthralgias and neuropathy remissions were achieved respectively in 78%, 50% and 50% of cases. Ulcers on the leg regressed. The therapy induced a reduction of cryocrit serum from 4.5 to 0,5% and Rheumatoid factor (RF) decreased. In one patient with MPGN, the proteinuria and creatinine decreased, cryocrit regressed in serum. In two patients treated with Tenofovir, HBV-DNA had undetectable viremia, purpura and arthralgias remission were achieved.

**Conclusions:** NAs therapy is highly effective and safe in HBV related MC. These data provide strong rationale for prospective trial with NAs in the setting.

### Olanzapine-associated hypothermia: a case report of a rare event

M. Monti<sup>1</sup>, F. Paciullo<sup>1</sup>, V. Mommi<sup>2</sup>, B.M. Forte<sup>2</sup>, S. Timpone<sup>3</sup>, G.M. Vincentelli<sup>3</sup>, F. Francavilla<sup>2</sup>, F. Borgognoni<sup>2</sup>

<sup>1</sup>Emergency Department, Assisi; <sup>2</sup>Emergency Department, Assisi; <sup>3</sup>Emergency Department, Fatebenefratelli, Rome, Italy

**Introduction:** Hypothermia, a potentially fatal condition, is defined as a drop of the body temperature below 35°C. The most common cause of severe hypothermia is the environmental exposure to low-temperatures. The hypothermia is an infrequent, but previously documented, adverse effect of antipsychotic medications.

**Case presentation:** A 83-year-old Italian woman was transported to the emergency room with a reduced level of consciousness, Glasgow Coma Scale 7. She was bradycardia, 80/150 mm Hg BP and RR 26/minute. Her physical examination was significant for an anal temperature of 31°C. Blood exam and Chest X-ray were unremarkable. In her clinical history, she was suffering from generalized anxiety disorder for the last 2 years and was prescribed olanzapine 7.5 mg daily. On the basis of the clinical findings, the patient's body temperature and blood exam, the diagnosis of olanzapine-associated hypothermia was made. The patient was gradually rewarmed with blankets and warm saline infusion and the olanzapine therapy was discontinued. He gradually regained consciousness after 18 hours and, after 1 day, the patient's body temperature increases up to 37.8°C with an improvement of the neurological conditions.

**Conclusions:** We reported about the case of a patient treated with stable doses of olanzapine for a long period of time that developed hypothermia, a potentially fatal complication. This case shows that it is important to consider every change in the patient behavior, e.g. the poor resistance to heat present in our patient, that should exhibit a warning sign of hypothermia.

### Give a better breath to the patient: clinical audit on chronic obstructive pulmonary disease in an Internal Medicine ward

L. Moriconi<sup>1</sup>, A. Bottone<sup>1</sup>, A. Bozza<sup>1</sup>, M. Capitelli<sup>1</sup>, M.S. Fiore<sup>1</sup>, A. Tarasi<sup>1</sup>, F. Di Sora<sup>1</sup>, F. Iebba<sup>1</sup>, S. Ferretti<sup>1</sup>, G. Manna<sup>1</sup>, F. Montella<sup>1</sup>

<sup>1</sup>UOC Medicina Interna ad Indirizzo Immunologico AO San Giovanni Addolorata, Roma, Italy

**Background and Aim of the study:** COPD is a common cause of hospital admission in Internal Medicine Wards (IMW) for acute exacerbations or is reported as a frequent comorbidity. Most guidelines on COPD focus on precise disease assessment, appropriate therapy and a comprehensive summary discharge as a strategy to reduce readmission rate.

**Patients and Methods:** We retrospectively collected data of 95 consecutive patients discharged from 01/01 to 09/30/2016 by our IMW with a diagnosis of COPD. We analyzed the following indicators selected by the last Global Initiative for Chronic Obstructive Lung Disease (GOLD) document.

**Results:** Correct staging (10%); Appropriate therapy regarding LABA (32%); LAMA (32%); ICS (12%); Complete summary of discharge follow-up (23%). Then we organized two training sessions to implement a change to achieve the standards proposed by the guidelines. We re-audit our performance by collecting again 55



consecutive patients discharged from 10/01/2016 to 01/31/2017 with the following results: Correct staging (45%); Appropriate therapy regarding LABA (40%); LAMA (47%); ICS (24%); Complete summary of discharge follow-up (45%), with a mean improvement of 54%.

**Discussion:** Even after the audit of our quality indicators for patients with COPD are still unsatisfactory compared to the reference standard and is already a new audit cycle been scheduled. However, the improvement was still very significant and involved all stakeholders (doctors and nurses) confirming that clinical audit is a valuable tool for improving the quality of care.

### Ultrasound-measured visceral adipose tissue correlates with risk factors, severity and co-morbidities of non-alcoholic fatty liver disease better than waist circumference

L. Napoli<sup>1</sup>, F. Tovoli<sup>1</sup>, S. Ferri<sup>1</sup>, F. Piscaglia<sup>1</sup>, L. Bolondi<sup>1</sup>

<sup>1</sup>Unità di Medicina Interna, Dipartimento di Scienze Mediche e Chirurgiche, Università di Bologna, Bologna, Italy

**Background:** Abdominal fat distribution has been recognized as a important risk factor for non-alcoholic fatty liver disease (NAFLD). Waist circumference (WC) is often used as surrogate measure of abdominal fat, but it is not able to discriminate the effects of visceral adipose tissue (VAT) from those of subcutaneous adipose tissue (SAT). Ultrasound(US)-determined VAT is easy to measure and may provide additional information.

**Aim:** To evaluate whether dissecting abdominal fat in VAT and SAT using US may also detect stronger and more specific association with NAFLD severity than WC.

**Methods:** We evaluated 84 NAFLD patients, diagnosed according to EASL guidelines. Multivariable linear regression was used to evaluate the association of WC, VAT and SAT with components of metabolic syndrome, liver enzymes, non-invasive markers of fibrosis, cardiovascular diseases.

**Results:** WC was independently associated with BMI ( $b=0.075$ ,  $p<0.001$ ), Shearwave elastography ( $b=0.441$ ,  $p=0.003$ ) and grade of steatosis ( $b=0.542$ ,  $p<0.001$ ). VAT was independently associated with arterial hypertension ( $b=0.339$ ,  $p<0.001$ ), triglycerides ( $b=0.235$ ,  $p=0.009$ ), gGT ( $b=0.430$ ,  $p<0.001$ ), grade of steatosis ( $b=0.301$ ,  $p=0.002$ ), NFS ( $b=0.157$ ,  $p=0.045$ ) and carotid plaques ( $b=0.156$ ,  $p=0.048$ ).

**Conclusions:** US-measured VAT is more strictly correlated to non-invasive markers of fibrosis than WC. It also correlates with risk factors for NAFLD and cardiovascular comorbidities. The widespread availability of US techniques allows measurement of VAT and SAT in everyday clinical practice, obtaining interesting prognostic information.

### A rare case of Carney-Stratakis syndrome in a patient with a SDHA mutation

A. Negro<sup>1</sup>, D. Nicoli<sup>2</sup>, E. Farnetti<sup>3</sup>, R. Santi<sup>4</sup>

<sup>1</sup>Internal Medicine and Hypertension Unit, IRCCS-Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>2</sup>Molecular Biology Laboratory, IRCCS-Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>3</sup>Molecular Biology Laboratory, IRCCS-Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>4</sup>Internal Medicine and Hypertension Unit; IRCCS-Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

Carney-Stratakis syndrome (CSS) is an autosomal dominantly inherited association of familial paraganglioma (PGL) and gastric sarcoma. The cause is a germline mutation in a gene encoding 1 of the succinate dehydrogenase subunits (SDH, SDHC, or SDHD). We report a case of CSS in a patient with a novel SDHA mutation who presented with GIST and asymptomatic pheochromocytoma. A 56-year-old male, with no past medical problems, presented for anemia (Haemoglobin 8.7 g/dl) with faecal occult blood. The upper gastrointestinal endoscopy revealed a 35-mm gastric submucosal haemorrhaging lesion, suggestive for GIST. The immunocytochemistry showed strong staining for DOG-1 and CD117. The CT revealed a 10 mm nodule at the right adrenal gland. The laboratory analysis showed: urinary cortisol 63 ng/24 hr (VN 10-85), renin 4.8 ng/dl (0.1-2.8), Aldosterone 90 pg/ml (30-150), urinary metanephrine 120 mcg/24 hr (64-302),

normetanephrine 335.5 mcg/24 hr (162-528), chromogranin 110 ng/ml (20-100). A FDG-PET demonstrated avid focal uptake in the stomach (SUV max 33.2) and right adrenal gland (SUV max 8.6). He underwent resection of gastric tumour and adrenalectomy. The histology confirmed GIST and pheochromocytoma respectively. After, a previous removal of a latero-cervical PGL in a daughter was referred. Genetic analysis by Sanger sequencing identified a new missense mutation of SDHA with A/T variant and a single amino acid substitution (Y/F) at position 629. We believe that diagnosis of CSS and genetic evaluation should be considered in patients who present with GIST and PGLs.

### Metabolic compensation and hypoglycemia in patients with insulin-dependent diabetes mellitus: advantages of continuous glucose monitoring associated with continuous subcutaneous insulin infusion

M.G. Nuzzo<sup>1</sup>, M. Schettino<sup>1</sup>, A. D'Alessandro<sup>2</sup>, A. Gargiulo<sup>1</sup>

<sup>1</sup>A.O.R.N. Sant'Anna e San Sebastiano, Caserta; <sup>2</sup>Dipartimento Gastroenterologia A.O.U. Federico II, Napoli, Italy

**Introduction and Aim:** In type1diabetics the continuous glucose monitoring(CGM) associated with continuous subcutaneous insulin infusion(CSII) allows to obtain an improvement in HbA<sub>1c</sub> and reduced time spent in hypoglycemia.This study purposes to assess the effectiveness of CGM associated with CSII.

**Materials and Methods:** Observational study on 35 patients with type1DM. After 3 months of CSII (T0) were assessed: HbA<sub>1c</sub>, hypoglycemia's number (<70mg/dl), severe hypoglycemia (<55mg/dl) and symptomatic hypoglycemia. After 3 months (T1) and 6 months (T2) of CGM: HbA<sub>1c</sub>, % total time spent in hypoglycemia (<70mg/dl), in severe hypoglycemia (<55mg/dl), % night time in hypoglycemia and in severe hypoglycemia.

**Results:** 18M e17F, mean age 33±10.5 yrs, diabetes duration 21±12.8 yrs, CSII duration 3.2±1.4 yrs. It revealed a statistically significant reduction of : HbA<sub>1c</sub> (T0:7.78±0.82; T1:7.52±0.65  $p<0.05$ ; T2: 7.21±0.61  $p<0.05$ ; T0 vs T2  $p<0.01$ ), % total time in hypoglycemia (T1:3.65±3.33; T2: 1.85±1.57  $p<0.01$ ), in severe hypoglycemia (T1:1.45±1.85; T2:0.5±0.76  $p<0.05$ ), % night time in hypoglycemia (T1:2.45±3.19; T2: 1.3±1.53  $p<0.05$ ) and in severe hypoglycemia (T1:1.5±1.96; T2: 0.4±0.75  $p<0.01$ ).

**Conclusions:** CGM associated with CSII improves HbA<sub>1c</sub> and reduces the time spent in hypoglycemia with a glycemic variability's decrease. It occurs an almost total reduction of the time spent in severe and nocturnal hypoglycemia,an almost disappearance of asymptomatic hypoglycemia. To this effects would contribute: insulin amount's optimization during 24h, alarm low/high glycemia, glycemic trend's indicators.

### Efficacy, safety and retention rate of intravenous and subcutaneous anti-IL6 monoclonal antibody in a large cohort of multimorbid patients affected by rheumatoid arthritis

D. Olivari<sup>1</sup>, A. Angeletti<sup>1</sup>, G. Pomponio<sup>1</sup>, C. Tontini<sup>2</sup>, D. Benfaremo<sup>1</sup>, L. Manfredi<sup>1</sup>, M.G. Danieli<sup>1</sup>, P. Fraticelli<sup>1</sup>, M.M. Luchetti<sup>1</sup>, G. Moroncini<sup>1</sup>, A. Gabrielli<sup>1</sup>

<sup>1</sup>Istituto di Clinica Medica, Ospedali Riuniti di Ancona; <sup>2</sup>Servizio di Immunologia Clinica, Ospedali Riuniti di Ancona, Italy

TCZ is used for the treatment of rheumatoid arthritis (RA). Although TCZ has been highly effective and safe in large trials, few data are available from real-life practice, where patients are older and more complex. To evaluate real efficacy, safety and retention rate of IV and SC TCZ, we studied a prospective cohort treated from April2010 to Jan2017. Patients were assessed for disease activity, treatment discontinuation and/or onset of adverse events (AEs). Retention rate (RR) was estimated by Kaplan-Meier method.100 patients were included in the analysis, 58 with IV-TCZ, 16 with SC-TCZ, 26 switched from IV to SC. Median age was 62y, 5-11y older than those enrolled in RCTs. Median n. of comorbidities was 2 and dyslipidemia(31), hypertension(27) and osteoporosis(10) were the most prevalent. At baseline, disease activity was severe in 87% of pts, while at the latest follow-up 60% of pts are in clinical remission. 53 discontinued TCZ because of inefficacy (19), AEs (13) or other reasons (21, mostly lost to follow-up). Infections were the most frequent AE (45.1/100

person-years); 3 cases of pneumonia were severe but only one required treatment discontinuation. As expected, worsening of dyslipidemia was observed. The overall RR was high (91.1%, 81.2%, 70.6%, 61.3%, 57.1%, 50% at 1,2,3,4,5,6y respectively). TCZ appears effective and safe even in a relatively old and multimorbid population of RA patients, followed in a real-life setting. No unexpected AEs were observed in this large population followed for a long period. Interestingly RR was not affected by the administration route.

### **Incidence of *Clostridium difficile* infection in Internal Medicine: results from a 5-year retrospective study in a large teaching Italian hospital**

A. Orsi<sup>1</sup>, A. Bellodi<sup>2</sup>, D.R. Giacobbe<sup>3</sup>, E. Arboscello<sup>2</sup>, N. Bardi<sup>2</sup>, A. Da Col<sup>2</sup>, C. Carrozzini<sup>2</sup>, V. Del Bono<sup>3</sup>, C. Viscoli<sup>3</sup>, F. Tassinari<sup>1</sup>, D. Bellina<sup>1</sup>, A.M. Di Bella<sup>1</sup>, C. Paganino<sup>1</sup>, G. Icardi<sup>1</sup>, C. Alicino<sup>1</sup>

<sup>1</sup>Hygiene and Infection Control Unit, IRCCS University Hospital San Martino-IST National Institute for Cancer Research, Genoa; <sup>2</sup>Clinic of Internal Medicine 3, IRCCS University Hospital San Martino-IST National Institute for Cancer Research, Genoa, <sup>3</sup>Infectious Diseases Unit, IRCCS University Hospital San Martino-IST National Institute for Cancer Research, Genoa, Italy

**Introduction:** The *Clostridium difficile* infection (CDI) is one of the most common hospital-acquired infections among adult-elderly subjects. We evaluated the incidence of CDI over a 5-years period in medical ward of our hospital and the 30-day mortality rate.

**Methods:** We carried out a retrospective study in medical ward at IRCSS AOU San Martino-IST, a tertiary adult acute-care teaching hospital in Genoa. From 1 January 2010 to 31 December 2014, all patients with hospital-acquired CDI were identified through the hospital laboratory database. A hospital-acquired CDI was defined as the presence of at least one unformed stool specimen positive for CD toxin A and/or B, occurring >3 days after hospitalization or 28 days after discharge.

**Results:** In the period 2010-2014, we identified 198 CDI episodes corresponding to an overall incidence of 2,01 per 10.000 patient-days. The annual incidence of CDI per 10.000 patient-days significantly increased from 0,49 in 2010 to 3,88 in 2014 ( $p < 0,001$ ). The median age of patients with CDI was 83 years, and 82% and 88% of them had at least one comorbidity and a previous exposure to antibiotics, respectively. 30-days mortality rate was 32%.

**Conclusions:** We observed a significant increase in the incidence of hospital acquired CDI in medical ward. A strictly adherence to infection control measures is of paramount importance to address the increasing incidence of CDI, particularly because of the advanced age of patients and their very high frequency of chronic conditions and use of antibiotics, which predispose them to the development of CDI.

### **Administration of teriparatide in post surgical hypoparathyroidism unresponsive to therapy with calcium and vitamin D: our experience**

A. Panico<sup>1</sup>, M.R. Poggiano<sup>1</sup>, G.A. Lupoli<sup>1</sup>, F. Fonderico<sup>1</sup>, A. Tortora<sup>1</sup>, M. Cacciapuoti<sup>1</sup>, L. Barba<sup>1</sup>, G. Lupoli<sup>1</sup>

<sup>1</sup>Dipartimento Medicina, Sezione Endocrinologia, Università Napoli Federico II, Italy

**Introduction:** Only about 3 years, subcutaneous recombinant human parathormone, teriparatide, (hPTH) has been introduced for HP treatment. The aim of our study was to evaluate the effectiveness and safety of treatment with hPTH after its approval for post surgical HP unresponsive to conventional therapy with Ca and vitamin D.

**Materials and Methods:** We selected 16 pts affected by post surgical HP. They complained of fatigue, paresthesia and tetany, during therapy with calcitriol 0.5 mg (on average 4 tablets/day) and Ca carbonate (on average 3000mg/day). Due to the onset of tetanic crisis, intravenous infusion of Ca gluconate was often required. During observation, tests showed: hypocalcemia (6.1+-1.3mg/dl), hyperphosphatemia (5.9+-0.9mg/dl), HP (6.2+-1.7pg/ml) hypercalcium (8.7+-0.51mmol/24h). The CBM showed osteoporosis in 4 pts, osteopenia in 3 pts while it was normal in 6 pts. When hypocalcemic symptoms or tetanus crisis occurred we introduced hPTH (20 mcg s.c.) in continuous treatment.

**Results and Conclusions:** In all pts we obtained normalization of

serum Ca levels, and resolutions of symptoms. 3 pts who had frequent tetanic crisis did not show acute episodes anymore. Tests showed normocalcemia (8.5+-0.4), normophosphatemia (3.6 +-0.9) and normal calciuria (5.8+-0.27). In our experience the use of hPTH is able to maintain normal serum Ca levels with the disappearance of crisis. This drug improved QoL and physical endurance in our pts. The limitation of this treatment is that it can be used only for 24 months, future studies are needed to determine the long term safety of therapy in this chronic condition.

### **Management of trauma in internal ward: a multicenter survey**

O. Para<sup>1</sup>, L. Masotti<sup>2</sup>, V. Vannucchi<sup>2</sup>, L. Corbo<sup>1</sup>, G. Zaccagnini<sup>1</sup>, C. Bazzini<sup>3</sup>, L. Bertini<sup>4</sup>, G. Vannini<sup>5</sup>, F. Risaliti<sup>6</sup>, C. Nozzoli<sup>1</sup>, S. Spolveri<sup>4</sup>, M. Di Natale<sup>6</sup>, G. Landini<sup>2</sup>, R. Tarquini<sup>7</sup>, G. Panigada<sup>3</sup>, A. Fortini<sup>8</sup>

<sup>1</sup>AOU Careggi, Firenze; <sup>2</sup>Ospedale Santa Maria Nuova, Firenze; <sup>3</sup>Ospedale SS Cosma e Damiano, Pescia (PT); <sup>4</sup>Ospedale del Mugello, Borgo San Lorenzo (FI); <sup>5</sup>Ospedale San Giuseppe Empoli (FI); <sup>6</sup>Ospedale Santo Stefano, Prato; <sup>7</sup>Ospedale San Giuseppe, Empoli (FI); <sup>8</sup>Ospedale San Giovanni di Dio, Firenze, Italy

**Background:** The number of trauma victims decreases as age increases, but hospitalization rate and medical complications are higher among the elderly. The aim of this study was to determine the epidemiology and clinical features of the trauma in internal ward in a Tuscany area.

**Materials and Methods:** Multicenter perspective study involved 7 centers in Internal Medicine in Tuscany during December 2016. We examined the main clinical and epidemiological features of patients hospitalized for traumatic injury.

**Results:** We analyzed 83 patients with a mean age of 77 years. The main comorbidities were hypertension (59%), dementia (28%), atrial fibrillation (24%), previous stroke (16%), diabetes (20%) and COPD (11%). Mortality was 5%. Mean length of stay was 9±4 days. Falls were the most common mechanisms noted (65%). Major injuries included head trauma (67%), extremity trauma (48%), and thoracic trauma (39%). The main medical complications were respiratory (30%) and heart failure (12%). 19% of patients assumed new oral anticoagulant at the hospitalization; in 13% of cases this therapy was interrupted and in particular 4 cases it was necessary a reverse therapy.

**Conclusions:** The increasing age, the multiple comorbidities and the spread of some drug classes have increased the risk of medical complications. All this requires the necessity of hospitalization in internal ward for traumatic patients. Internist must have basic clinical education in order to afford, in a fast effective way, the specific needs of traumatic patients.

### **Remote medicine and intensive educational program can prevent early re-hospitalization in insulin treated diabetic patients: the Colleferro experience**

M. Pellegrinotti<sup>1</sup>, G. Gabriellini<sup>1</sup>, A. Cacciotti<sup>1</sup>, S. Di Simone<sup>1</sup>, R. Pastorelli<sup>1</sup>

<sup>1</sup>UOC Medicina, PO Colleferro (Roma), Italy

Diabetic patients often experience many access to emergency room and re-hospitalization (the so called "revolving patient") due to poor glycemic control and incompetence in its management. Moving from D-time (D-t; a structured educational protocol for insulin treated hospitalized patient) we developed a nurse/medical managed intensive educational support associated with a remote support service (RSS), concurrently with the standard diabetic ambulatory (DA), for a defined time directed to selected insulin treated diabetic patients with metabolic instability, requiring frequent glycemic control and impeding in the movement with the aim to reduce the number of access to emergency room (ER) and re-hospitalization in the short/medium time. We enrolled 30 patients (M21; F 9) coming from the ER or dismissed from other ward or from DA. Patient/caregiver were trained at start (T0) using the D-t protocol; they were instructed to address via smartphone to a call center (CC) (9 am to 6 pm) for phone counseling to adjust insulin dose on the basis of a preset scheme; CC operator could contact an hospitalist to manage out of range glycemic values. If repeated calls were recorded a DA check was scheduled. After 9 months (T9) we observed a dra-

matic improvement in metabolic control (HbA1c at T0 and T9 11.3 and 7.1%; 100 and 54 mmol/mol); no hospitalizations were recorded in any of our patients. A structured and defined protocol for an intensive educational support directed to selected patients linked with a RSS can prevent diabetes-related hospitalizations among complex diabetic patients.

### Active Epstein-Barr virus infection is present in enteric mucosa of refractory celiac disease

V. Perfetti<sup>1</sup>, F. Baldanti<sup>2</sup>, M.V. Lenti<sup>3</sup>, A. Vanoli<sup>4</sup>, F. Biagi<sup>5</sup>, M. Gatti<sup>6</sup>, R. Riboni<sup>6</sup>, E. Dalleria<sup>6</sup>, M. Paulli<sup>4</sup>, P. Pedrazzoli<sup>7</sup>, G.R. Corazza<sup>3</sup>

<sup>1</sup>Medicina Interna, Ospedale Varzi, ASST Pavia; <sup>2</sup>Laboratorio di Virologia, IRCCS Policlinico San Matteo, Pavia; <sup>3</sup>Medicina I, IRCCS Policlinico San Matteo, Pavia; <sup>4</sup>Anatomia Patologica, Università di Pavia, Pavia; <sup>5</sup>Laboratorio Analisi, Ospedale di Voghera, ASST Pavia; <sup>6</sup>Anatomia Patologica, IRCCS Policlinico San Matteo, Pavia; <sup>7</sup>Oncologia, IRCCS Policlinico San Matteo, Pavia, Italy

**Background:** Refractory celiac disease (RCD) is characterized by intestinal mucosa damage despite a gluten-free diet. Type II RCD features aberrant intraepithelial T-lymphocytes (IEL) with TCR clonality and has a high propensity to develop into enteric T-cell lymphoma (EATL). Environmental factors have been implied in the pathogenesis of RCD. We performed the first case-control study from RCD and uncomplicated CD based on the search of known B- and T-lymphotropic oncogenic viruses in duodenal biopsies.

**Materials and Methods:** 17 RCD; 24 CD. Real-time PCR, immunohistochemistry and in-situ hybridization performed on duodenal specimens taken at diagnosis. Viruses: EBV, HHV-8, HTLV-I-II-III.

**Results:** Only DNA from EBV was detected. EBV was found more frequently in RCD (12/17, 70.5%) than in CD (4/24, 16.6%) (P<.001). EBV DNA loads were higher in RCD (P<.001). In positive RCD cases, EBV was found also in peripheral blood. EBV was detected more frequently in bad prognosis type II RCD than in type I, and virtually all pts who developed EATL had EBV infection. Immunohistochemistry showed that duodenal epithelial cells harbored EBV. Study of the EBV cycle demonstrated active replication, a finding that is consistent with cell death, cytokine release and inflammation.

**Conclusions:** EBV is the first exogenous agent identified in RCD intestinal mucosa. EBV active infection involves both lymphoid and epithelial cells and contributes to the inflammatory state observed in RCD. Since EBV is an established oncogenic factor in GI lymphomas, EBV might be involved in the development of EATL.

### The impact of increased systolic pulmonary artery pressure on the late outcome of patients with pulmonary embolism. The SCOPE Investigators

R. Pesavento<sup>1</sup>, L. Filippi<sup>1</sup>, P. Prandoni<sup>2</sup>

<sup>1</sup>Clinica Medica 3, Università di Padova; <sup>2</sup>Dipartimento di Scienze Cardiologiche, Toraciche e Vascolari, Università di Padova, Italy

**Background:** In several patients, after a first episode of acute pulmonary embolism (PE), the risk of recurrent venous thromboembolism (VTE) is high and that of chronic thromboembolic pulmonary hypertension (CTEPH) is not negligible. The impact of increased systolic pulmonary artery pressure (sPAP) on the outcome of patients with PE is uncertain.

**Aims:** to determine the risk of recurrent VTE and/or CTEPH over a 3-year follow-up in a wide cohort of PE patients with and without asymptomatic increased sPAP.

**Methods:** In a nationwide, multicentre, prospective cohort study, consecutive patients with first, objectively confirmed acute PE were prospectively followed for up to 3 years. An echocardiographic test was performed after 6 weeks and after 6 months. Increased sPAP was defined for values >36 mmHg. Outcomes were centrally adjudicated by an independent committee.

**Results:** 518 consecutive patients were followed for 3 years and received an echocardiographic examination at 6 weeks and at 6 months. An increased sPAP was found in 79 (15.3%) patients after 6 weeks and in 61 (11.8%) after 6 months. Recurrent VTE and/or CTEPH developed in 14 (17.7%) patients with an increased sPAP after 6 weeks and in 29 (6.6%) without it leading to an adjusted

hazard ratio of 2.82 (95%CI, 1.46 - 5.41). Recurrent VTE and/or CTEPH developed in 12 (19.6%) patients with increased sPAP after 6 months and in 31 (6.8%) without it leading to an adjusted hazard ratio of 4.04 (95%CI, 2.03 - 8.04).

**Conclusions:** Asymptomatic increased sPAP, as assessed with echocardiography, 6 weeks or 6 months after an episode of PE, is an independent predictor of recurrent VTE and/or CTEPH.

### The prevalence of resistant arterial hypertension and secondary causes in a cohort of hypertensive patients: a single center experience

L. Petramala<sup>1</sup>, F. Olmati<sup>1</sup>, A. Concistrè<sup>1</sup>, M. Galassi<sup>1</sup>, M. Pergolini<sup>1</sup>, L. Lucia<sup>1</sup>, M. Celi<sup>1</sup>, G. Tonnarini<sup>1</sup>, G. Iannucci<sup>1</sup>, C. Marinelli<sup>1</sup>, C. Letizia<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Specialità Mediche, Università di Roma "Sapienza", Italy

**Background:** Despite the growing number of clinical studies in the past decade, the prevalence of resistant hypertension (RHT) still remains unknown. Aim of the study was to investigate in a large cohort of hypertensive patients the prevalence of RHT. Moreover, we sought to recognize the prevalence of secondary causes below RHT.

**Materials and Methods:** We enrolled a series of 3.685 consecutive hypertensive patients who were referred to our Specialized center of Secondary Hypertension (SH). All patients underwent complete physical examination, laboratory tests, screening for SH with hormone analysis. Ambulatory Blood Pressure Monitoring (ABPM) was performed to exclude white-coat hypertension. Further, we used the Epworth Sleepness Scale Questionnaire and performed nocturnal polysomnography to discover any obstructive sleep apnea syndrome (OSA).

**Results:** In 3.685 hypertensive patients, 232 patients (5.8%) fulfilled criteria for RHT. In these RHT patients, 91 (39%) had a SH. 56 (61%) patients had a primary aldosteronism (PA), 22 (24%) had OSA, 7 (7.7%) had an hypercortisolism (SC), and 5 (5.5%) had a renovascular hypertension (RVH). Only one patient had adrenal pheochromocytoma (PHEO).

**Conclusions:** We suggest with our abundant data that an accurate definition and investigation into RHT is needed. First, we recommend ABPM to all patients at diagnosis. Second, all patients must be screened for SH, such as adrenal hypertension, OSA and RVH, especially those who are apparently resistant to polypharmacologic treatment. Once detected, they must be appropriately treated and cured.

### Liraglutide and renal outcomes in type 2 diabetes: results of the LEADER Trial

P. Piatti<sup>1</sup>, J.F. Mann<sup>2</sup>, K. Brown Frandsen<sup>3</sup>, G. Daniels<sup>4</sup>, P. Kristensen<sup>3</sup>, M. Nauck<sup>5</sup>, S. Nissen<sup>6</sup>, S. Pocock<sup>7</sup>, N. Poulter<sup>8</sup>, S. Rasmussen<sup>3</sup>, W. Steinberg<sup>9</sup>, M. Stockner<sup>3</sup>, B. Zinman<sup>10</sup>, F. Baeres<sup>3</sup>, R. Bergenstal<sup>11</sup>, S. Marso<sup>12</sup>, J. Buse<sup>13</sup>

<sup>1</sup>Ospedale San Raffaele (MI), Italy; <sup>2</sup>University of Erlangen, Germany; <sup>3</sup>Novo Nordisk A/S, Denmark; <sup>4</sup>Massachusetts General Hospital, USA; <sup>5</sup>Ruhr University, Germany; <sup>6</sup>Cleveland Clinic, USA; <sup>7</sup>London School of Hygiene and Tropical Medicine, UK; <sup>8</sup>Imperial College London, UK; <sup>9</sup>G. Washington University, USA; <sup>10</sup>Mt. Sinai Hospital, Toronto, Canada; <sup>11</sup>International Diabetes Center, Minneapolis, USA; <sup>12</sup>University of Texas, USA; <sup>13</sup>University of North Carolina, USA

**Background:** The effects of liraglutide (LIRA) on renal outcomes in type 2 diabetes (T2DM) are unknown. We conducted a randomized, double-blind, placebo-controlled trial comparing LIRA vs placebo, both on a background of standard of care, in T2DM patients and high cardiovascular risk.

**Methods:** LEADER trial ended in 2015. Renal events were key secondary outcomes. The primary renal outcome was a composite of new onset of persistent macroalbuminuria (MA), persistent doubling of serum creatinine (SC), end stage renal disease (ESRD) or death due to renal disease. Risk of renal outcomes was determined using intention-to-treat in time-to-event analyses; competing risk of death was considered. Change of eGFR and loss of eGFR by >-30% was analyzed.

**Results:** 9340 patients were randomized (median follow-up was

3.84 y). The primary renal outcome occurred in fewer patients treated with LIRA (268/4668) than with placebo (337/4672; HR 0.787 [0.670;0.924]  $p=0.003$ ). The difference was primarily driven by new onset of persistent MA occurring in fewer patients treated with LIRA (161/4668) than with placebo (215/4672; HR 0.74 [0.61;0.91]  $p=0.004$ ). Doubling of SC and ESRD tended to be less frequent with LIRA. eGFR decreased significantly less and albuminuria increased less with LIRA than placebo. The difference in change of eGFR was driven exclusively by the subgroup with eGFR <60 ml/min at baseline (N=2458). The difference in change of albuminuria was independent of baseline eGFR or albuminuria. **Conclusions:** Liraglutide in addition to standard of care reduced the progression of diabetic nephropathy.

### An intriguing case of chronic granulomatous disease

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania; <sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Introduction:** Chronic Granulomatous Disease (CGD) is a rare hereditary disorder (X-linked or recessive autosomal), implying neutrophil leukocytes qualitative defect, conditioning recurrent severe pyogenic infections, granulomatous tissue response and impaired phagocyte microbicidal activity. Diagnosis is made through the evaluation of phagocytic oxidase activity.

**Clinical case:** A 72-year old woman was admitted to our Dept for face inflammatory painful tumefactions, asthenia and fever (41°C) with thrills. At history breast cancer at the age of 40 y treated on surgery, CT and RT and recurrent episodes of subcutaneous infections associated to fever and treated by surgery and antibiotics. Laboratory data showed slight leukopenia, and rise of phlogosis markers, but negative autoimmune parameters, hepatitis, BK, HIV and other infectious indexes and tumoral markers. Normal was the lymphocyte populations evaluation. Histological and cytological evaluation of skin and subcutaneous tissue biopsies surprisingly revealed the presence of granulomatous phlogosis underlain by *Citr.braakii*, *Kl. oxytoca*, *Ent. casseliflavus*! Suspecting a CGD, she underwent to neutrophil leukocytes activity evaluation which confirmed our diagnosis. Treated on antibiotics and surgical drainage, she dramatically improved.

**Discussion:** CGD, clinically characterized by relapsing skin, lymph node, lungs liver and spleen infections is a devastating disease with poor prognosis. Microbial prophylaxis, early and aggressive treatment of infections and interferon gamma are the cornerstones of its current therapy.

### Role of wireless monitoring in Internal Medicine Unit for ongoing assessment of critically ill patients: impact on outcomes, length of stay and costs

F. Pietrantonio<sup>1</sup>, A.R. Bussi<sup>1</sup>, S. Amadasi<sup>1</sup>, E. Bresciani<sup>1</sup>, A. Caldonazzo<sup>1</sup>, P. Colombini<sup>1</sup>, M.S. Giovannini<sup>1</sup>, L. Lanzini<sup>1</sup>, P. Migliorati<sup>1</sup>, P. Perini<sup>1</sup>, A. Politi<sup>1</sup>, F. Soldati<sup>1</sup>, O. Meneghetti<sup>1</sup>, R. Bellocco<sup>2</sup>, R. D'amico<sup>3</sup>

<sup>1</sup>U.O. Medicina Interna P.O. Manerbio (BS) ASST-Garda; <sup>2</sup>Università di Milano-Bicocca, Cattedra di Statistica Medica; <sup>3</sup>Università di Modena e Reggio Emilia, Cattedra di Statistica Medica, Italy

**Background:** To provide clinical and economic data on the impact of critically ill patients (CIPs) in Internal Medicine (IM), wireless vital parameters continuous monitoring (WVPCM) will be compared to nurses' traditional monitoring.

**Study Design:** Pilot perspective controlled randomized open-label single-center study with WIN @ Hospital wearable and wireless system using alert on portable devices (ipad). Study Arms. 1. Experimental: CIPs with MEWS (Modified Early Warning Score)  $\geq 3$  and/or NEWS (National Early Warning Score)  $\geq 5$ , at admission or with glycemic decompensation and/or severe fluid and electrolyte imbalance, will be subjected to WVPCM in the first 72 h. 2. Active Comparator: CIPs subjected to traditional nurses' monitoring. Primary outcomes: Major complications reduction (MC) from 15% to 5%. Secondary outcomes. 1 day length of stay (LOS) reduction;

reduced monitoring nurse's time; patients' stratification and end stage definition. Statistical methodology. According to 2016 Manerbio IM preliminary study, 25% of hospitalized patients are critical (MEWS $\geq 3$ ) requiring monitoring, with 15% of MC. We define as clinically significant a 5% MC relative reduction in experimental arm. By setting error and  $\beta$  equal to 5% to 20%, 141 patients per arm will be recruited, increased to 148 considering 5% loss (total 296). Considering the average 2016 LOS (9.21 days DS $\pm 6,7$ ) WVPCM would produce at least 1 day LOS reduction.

**Conclusions:** WVPCM early detects deterioration in CIPs allowing to address immediately patient's needs, increasing safety and reducing costs.

### Pneumonia in medical wards: clinical features, risk factors for multi-drug resistant bacteria, empiric therapy and outcome

E. Pistella<sup>1</sup>, D. Martolini<sup>1</sup>, V. Martorelli<sup>2</sup>, U. Recine<sup>2</sup>, C. Santini<sup>1</sup>

<sup>1</sup>Ospedale MG Vannini di Roma, UOC di Medicina; <sup>2</sup>Ospedale Santo Spirito in Sassia, UOC di Medicina, Roma, Italy

**Objectives:** To evaluate the prevalence of epidemiologic pneumonia classes in medical wards, the impact these have on treatment, including the coverage for multi-drug resistant bacteria (MDR), and to reassess community-onset pneumonias using newer risk-scores for MDR.

**Methods:** Observational, prospective, double center study carried out from June 2016 to January 2017 in Rome. Records of patients with pneumonia discharged in the 1<sup>st</sup> and 3<sup>rd</sup> week of each month were analyzed.

**Results:** 74 cases were collected (Age $\pm$ SD, 78 $\pm$ 14 years). 40,5% Community-Acquired Pneumonia (CAP), 46% Healthcare-Associated Pneumonia, 13,5% Hospital-acquired (HAP). Length of stay was 15 $\pm$ 9 days (13 $\pm$ 9 CAP; 13 $\pm$ 6 HCAP; 26 $\pm$ 8 HAP) Mortality was 28,4% (10% CAP; 38,2% HCAP; 50% HAP). CURB-65 was similar for CAP and HCAP (2.6 $\pm$ 1.2). PSI was higher for HCAP (PSI<sub>HCAP</sub> vs PSI<sub>CAP</sub> 148 $\pm$ 41 vs 126 $\pm$ 40;  $p < 0,05$ ). Levofloxacin, piperacillin/tazobactam, ceftriaxone, clarithromycin were most used in CAP (40%, 33%, 23%, 23% respectively); piperacillin/tazobactam (76%), levofloxacin (32%) and ampicillin/sulbactam (29%) in HCAP. CAP/HCAP were stratified by Shorr risk score for Methicillin Resistant *S. aureus* (MRSA), in low (26,5%), medium (64%) and high risk (9%). MRSA coverage was 6%, 15% and 16%, mortality rate 6%, 27%, 66% respectively. Re-assessing HCAP/CAP group by probabilistic scores for MDR, we found an ARUC/Shindo score  $\geq 3$  in 23(36%) cases, of them 86% received piperacillin/tazobactam as antibiotic of choice.

**Conclusions:** Pneumonias are heterogeneous in medical wards. MDR coverage is usually guaranteed but not the one for MRSA.

### Lung manifestations of IgG4-related disease. A multifaceted disorder

S. Ramponi<sup>1</sup>, L. Balzarini<sup>1</sup>, C. Mancini<sup>1</sup>, M. Marvisi<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, Istituto Figlie di San Camillo, Cremona, Italy

**Introduction:** Immunoglobulin G4-related disease (IgG4-RD) is a systemic inflammatory disease associated with elevated circulating levels of IgG4. We report two cases of IgG4-RD admitted to our department to show the multifaceted manifestations of this disease in the lungs.

**Case 1:** A 51-year-old man presented to medical attention with dyspnoea and a dry cough. He underwent a chest X-ray, which showed massive pleural effusion. Histopathological examination of biopsy samples of the parietal pleura was characterized by findings were attributable to IgG4 disease.

**Case 2:** A 52-year-old man patient was admitted to our department with dyspnoea and limb weakness. A CT scan showed patchy ground-glass consolidation in the the right upper lobe and left lower lobe. Magnetic resonance imaging revealed central syringomyelia, which diffusely compressed the spinal cord from C2 through to T5. Histopathological examination of fragments of the bronchial wall was characterized by findings are consistent with IgG4-RD.

**Discussion:** IgG4-RD can affect one or more organs. Pulmonary involvement of IgG4-RD includes airway, lung parenchyma, pleura and mediastinum. Histopathologically, IgG4-RD is characterized by dense infiltration of IgG4-positive plasma cells and lymphocytes, storiform fibrosis and obliterative phlebitis in affected organs. Diagnosis is based on symptoms, biochemistry and histopathological characteristics. Typically, our patient also showed improvement of clinical symptoms and radiological findings after systemic steroid treatment, which is considered the primary therapy for IgG4-RD.

#### **New therapies in heart failure with reduced ejection fraction. The use of angiotensin-receptor/nephrilysin inhibitor in geriatric patients affected by heart failure with reduced ejection fraction**

S. Rotunno<sup>1</sup>, E. Bizzi<sup>1</sup>, A. Bianchi<sup>1</sup>, A. Armiento<sup>1</sup>, V. Della Chiara<sup>1</sup>, F. Lasaracina<sup>1</sup>, O. Guarino<sup>1</sup>, L. Giubilei<sup>1</sup>, L. Xiao<sup>1</sup>, C. Valente<sup>1</sup>, M. Martinelli<sup>1</sup>, R. De Angelis<sup>1</sup>, D. Larussa<sup>1</sup>, M. Cassol<sup>1</sup>

<sup>1</sup>Internal Medicine, S. Pietro BFB Hospital, Rome, Italy

**Background:** The aim of our study is to demonstrate the benefit on clinical symptoms in HF, the improve of Ejection Fraction (EF) and reduction of NTproBNP value in older patients with HF rEF in treatment with ARNI (sacubitril/valsartan).

**Materials and Methods:** We studied 17 geriatric patients (age cut off  $\geq 75$  yo), admitted in Internal Medicine Department from July 2016 to February 2017. All patients presented HF rHF (cutoff  $\leq 35\%$  EF), high NTproBNP, presence of clinical symptoms of HF. At T0 we administered KCCQ (Kansas City Cardiomyopathy Questionnaire), echocardiography, walking test, NTproBNP and general blood exams. All patients started the treatment with secubitril /valsartan 24/26 mg bis in die; after 1 month all patients switched to 49/51 mg bis in die. At month 2 all patients switched to 97/103 mg bis in die. After 1 month blood exams were repeated. At 2 months NTproBNP, ecocardiography, blood exams, KCCQ and walking test were repeated.

**Results:** All patients reported an improvement of KCCQ as for quality of life and reduction in dyspnea. Value of NTproBNP was reduced at 4 weeks, with a statistically significant improvement. An improvement of 10% mean was observed for EF at 2 months. Also, a similar improvement was observed for walking test. Renal function remained stable in all patients with a tendency to improvement.

**Conclusions:** The use of ARNI in elderly patients with HF rEF seems promising. Further and larger studies are needed to confirm such data. All enrolled patients are under study for the prosecution of the reported evaluation.

#### **Rare diseases: management of Gorham's disease is frightening challenge for clinicians**

L. Sammicheli<sup>1</sup>, A. Mancini<sup>1</sup>, F. Luise<sup>1</sup>, F. Bacci<sup>2</sup>, F. Rocchi<sup>2</sup>, V. Turchi<sup>2</sup>, M.S. Rutili<sup>2</sup>, C. Nozzoli<sup>2</sup>, F. Pieralli<sup>3</sup>

<sup>1</sup>Subintensiva di Medicina, AOU Careggi, Firenze; <sup>2</sup>Medicina Interna, AOU Careggi, Firenze; <sup>3</sup>Subintensiva di Medicina, AOU Careggi, Firenze, Italy

**Background:** Gorham-Stout Disease (GSD) is a rare syndrome, of unknown etiology, characterized by the abnormal proliferation of lymphatic vessels in bone that lead to progressive osteolysis till the bone vanishes associated with invasion of soft tissue and presence of relapsing chilo thorax. When patients show any of the severe complications of disease they are managed by clinicians that have to face an unknown illness.

**Case report:** We describe a case of a thirty-three year old man who was admitted several times for septic shock due to spontaneous abscess in soft tissue, drainage of massive relapsing chilo thorax and at the end spinal cord compression at C7 level for multiple vertebral osteolysis. Soon after he underwent neuro-surgical intervention for spinal stabilization and left pleurodesis for massive chilo thorax that hindered spontaneous breathing. His postoperative progress was good but he never recovered in mobility or lung performance. He faced MDR pulmonary infections and sacral bedsore and after nine months he underwent to right pleurodesis for respiratory failure. The general condition during the

last interventions were unstable and he never recovered lung expansion. The surgical wound hasn't never healed cause to massive lymphatic production. He finally passed away last february.

**Conclusions:** The concern of causing further damage to the patient and the absence of a national reference center for management of complication of GSD delays the interventional procedures and requires a complex international and multispecialist management strategy.

#### **Bilateral carotid body tumor associated with polycystic kidney disease in patients admitted due to syncope: an unusual ultrasound diagnosis**

C. Sgarlata<sup>1</sup>, S. Bagnoli<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona di Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** A 83-year-old man presented to the ED of our hospital complaining malaise and recurrent falls due to syncope in the past three days so he was admitted to our internal medicine ward.

**Case report:** on admission the patient was asymptomatic showing good general condition; blood pressure was 100/50 mmHg, HR 52 bpm and regular. Blood test revealed normal findings except for an increase of the creatinine value (2,7 mg/dl). EKG showed sinus bradycardia (confirmed at seriated controls). A Holter EKG showed the same findings with lowest HR value of 32 bpm. A carotid doppler ultrasound was performed revealing the presence of a solid, homogeneous and high vascularized mass with regular border at both the carotid bifurcations (max diameter 3 cm on the left, 2,1 cm on the right) compatible with bilateral carotid body tumor. An abdominal ultrasound showed numerous bilateral kidney cyst (more than 8 for side, the larger of 27 cm of diameter in the left kidney). A neck MRI confirmed the suspicion of bilateral carotid glomus. After a vascular surgeon evaluation and a careful risk benefit balance a conservative strategy based on clinical and echographic follow up was adopted.

**Discussion and Conclusions:** the association of carotid body tumor and polycystic kidney is a rare syndrome of which a couple of case reports are described in literature (none with a bilateral carotid glomus). Our case emphasizes the great utility of ultrasound in the evaluation of the patient with syncope in whose diagnosis, although rare, carotid glomus should be always considered.

#### **Colonization of residents and staff of an Italian long-term care facility and an adjacent acute-care hospital geriatric unit by multidrug-resistant bacteria**

F.C. Sleghe<sup>1</sup>, R. Aschbacher<sup>2</sup>, G. Soelva<sup>1</sup>, E. Pagani<sup>2</sup>, A. March<sup>1</sup>

<sup>1</sup>Reparto di Geriatria, Comprensorio Sanitario di Bolzano; <sup>2</sup>Laboratorio Aziendale di Microbiologia e Virologia, Comprensorio Sanitario di Bolzano, Italy

In 2016 we undertook a point prevalence screening study for *Enterobacteriaceae* with extended-spectrum  $\beta$ -lactamases (ESBLs), derepressed/acquired high-level AmpC cephalosporinases and carbapenemases, and also methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin resistant enterococci (VRE) in a long-term care facility (LTCF) and the associated acute care hospital geriatric unit in Bolzano, Northern Italy. The study followed up a similar survey in the same LTCF and geriatric unit in 2008 and 2012. Urine samples and rectal, inguinal, oropharyngeal and nasal swabs were plated on selective agars. Demographic data were collected. ESBL and carbapenemase genes were sought by PCR. We found the following colonization percentages with multidrug-resistant (MDR) bacteria in 2016 in LTCF residents: all MDR organisms, 66.1%; ESBL producers, 53.0%; carbapenemase-producers, 1.7%; MRSA, 14.8%; VRE, 0.8%. Colonization by all MDR bacteria was 19.4% for LTCF-staff and 26.0% for geriatric unit patients. PCR showed that 82.9% of *Escherichia coli* isolates from LTCF residents, all *E. coli* isolates from LTCF staff, 62.5% and 100% of *Klebsiella*

*pneumoniae* from LTCF residents and geriatric unit patients, respectively, had a *bla*<sub>CTX-M</sub>-type gene. No *bla*<sub>CTX-M</sub>-type determinant was detected from other *Enterobacteriaceae* species. To conclude, the ongoing widespread diffusion of MDR bacteria in the LTCF suggests that efforts should be strengthened on MDR screening, implementation of infection control strategies and antibiotic stewardship programs targeting the unique aspects of LTCFs.

### Predicting the risk of candidemia in Internal Medicine wards: risk factors and a scoring system obtained by real world data

E. Sozio<sup>1</sup>, F. Pieralli<sup>2</sup>, A.M. Azzini<sup>3</sup>, F. Demma<sup>4</sup>, G. Furneri<sup>4</sup>, G. Tintori<sup>1</sup>, G. Bertolino<sup>5</sup>, S. Fortunato<sup>6</sup>, S. Meini<sup>7</sup>, D. Bragantini<sup>8</sup>, A. Moretini<sup>9</sup>, C. Nozzoli<sup>10</sup>, F. Menichetti<sup>11</sup>, E. Concia<sup>12</sup>, C. Tascini<sup>13</sup>

<sup>1</sup>Emergency Medicine Unit, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>2</sup>Intermediate Care Unit, Azienda Ospedaliera Universitaria Careggi, Florence; <sup>3</sup>Infectious Disease Unit, Azienda Ospedaliera Universitaria Integrata di Verona; <sup>4</sup>Health Economics & Outcome Research Department - EBMA Consulting, Milano; <sup>5</sup>Pharmaceutical Department, Azienda Ospedaliera Universitaria Pisana, Santa Chiara, Pisa; <sup>6</sup>Infectious Diseases Clinic, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>7</sup>Department of Internal Medicine, S.M. Annunziata Hospital, Firenze; <sup>8</sup>Infectious Disease Unit, Azienda Ospedaliera Universitaria Integrata di Verona; <sup>9</sup>Internal Medicine Unit, Azienda Ospedaliera Universitaria Careggi, Florence; <sup>10</sup>Internal Medicine Unit, Azienda Ospedaliera Universitaria Careggi, Florence; <sup>11</sup>Infectious Diseases Clinic, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana; <sup>12</sup>Infectious Disease Unit, Azienda Ospedaliera Universitaria Integrata di Verona. p.Le LA Scuro; <sup>13</sup>First Division of Infectious Diseases, Cotugno Hospital, Azienda Ospedaliera dei Colli, Napoli, Italy

**Background:** An increasing number of candidemia in patients admitted to internal medicine wards (IMWs), owing to the high prevalence of frail patients in this setting. Aim of this study is to identify risk factors for candidemia *versus* bacteremia among patients hospitalized in IMWs and, possibly, to define a new scoring system predicting the risk of candidemia.

**Materials and Methods:** This is a retrospective study using data (February 2012 - August 2015) collected by the IMWs of Pisa, Firenze and Verona Hospitals. Non-neutropenic adults with candidemia (150 cases) were included in the analysis and 1:1 matched to patients reporting bacteremia (150 controls). Step-wise logistic regressions were performed to estimate a scoring system predicting the risk for candidemia.

**Results:** Factors associated with a strong and moderate-strong risk of candidemia in IMWs are: 1) to perform blood cultures 1 days after hospitalization (OR 11.45); 2) peripherally inserted central catheter (PICC) (OR=6.84) or an intravascular device (OR=6.08); 3) Total Parental Nutrition (OR 6.86); 4) previous antibiotic treatment (OR 5,23) and antibiotics during hospitalization (OR 4,75); 5) previous (30-days) *C. difficile* infection (OR 3,75). Starting from these risk factors, we have developed a new scoring system with high sensitivity, specificity and accuracy in predicting the risk of candidemia in IMWs.

**Conclusions:** These findings may be useful to clinicians in diagnosing and directing therapy allowing patients with candidemia to be quickly and opportunely treated thus reducing complications and mortality.

### Direct-acting antiviral drugs for chronic hepatitis C and risk of major vascular events: a systematic review

E. Tamborini Permunian<sup>1</sup>, L. Gervaso<sup>2</sup>, V. Gerdes<sup>3</sup>, L. Moja<sup>4</sup>, L. Guasti<sup>1</sup>, A. Squizzato<sup>1</sup>

<sup>1</sup>Research Centre on Thromboembolic Disorders and Antithrombotic Therapies, Department of Clinical and Experimental Medicine, University of Insubria, Varese, Italy; <sup>2</sup>Oncology Unit, IRCCS Fondazione Salvatore Maugeri, University of Pavia, Pavia, Italy; <sup>3</sup>Department of Internal Medicine, MC Slotervaart, Amsterdam, The Netherlands; <sup>4</sup>Unit of Clinical Epidemiology, I.R.C.C.S. Orthopedic Institute Galeazzi, Milan, Italy

**Background and Aim of the study:** Direct-acting antiviral drugs (DAAs) were recently approved for treating HCV-related chronic

hepatitis. As chronic liver disease may predispose patients to thrombotic events, it is still uncertain whether DAAs may influence the actual risk of major arterial and venous thrombotic events. We performed a systematic review to assess the incidence of major vascular events, in patients receiving DAAs for HCV chronic hepatitis during phase-III randomized controlled trials (RCTs).

**Materials and Methods:** Studies were identified through Pubmed database until October 2015 by two reviewers. Reporting and incidence of any vascular events were compared with reporting and incidence of major bleeding, anaemia (a prespecified safety outcome) and headache (a common non-prespecified safety outcome).

**Results:** 33 RCTs, encompassing 14,764 patients, were included. Only 12 (36%) and 4 (12%) RCTs provided data on any arterial or venous events, respectively. Occurrence of anaemia and headache was reported in all studies. Crude unweighted rate of major arterial events was 0.16% [95% CI 0.10-0.24] of the total included population and 0.47% in those 12 RCTs reporting data. Crude unweighted rate of major venous events was 0.03% of the total included population [95% CI 0.01-0.08] and 0.22% in those 4 RCTs reporting data. Crude unweighted rate of major bleeding was 0.07% [95% CI 0.03-0.1].

**Conclusions:** According to available data, incidence of major vascular events may be incorrectly estimated compared to other safety outcomes in HCV patients treated with DAAs.

### Preliminary short-term results of a population of patients treated with MitraClip therapy: one center experience

R. Taravella<sup>1</sup>, M.G. Cellura<sup>1</sup>, G. Cirrione<sup>1</sup>, S. Ascitto<sup>1</sup>, M. Caruso<sup>1</sup>, M. Benedetto<sup>1</sup>, R. Ciofalo<sup>1</sup>, G. Pace<sup>2</sup>, S. Novo<sup>2</sup>

<sup>1</sup>ARNAS Civico Cardiology Utic, Palermo; <sup>2</sup>University Hospital P. Giaccone, Division of Cardiology, Palermo, Italy

**Objectives:** This retrospective analysis sought to evaluate 1-month outcomes and therapy effectiveness of a population of patients treated with MitraClip therapy. We describe in this article the preliminary results of primary effectiveness endpoint.

**Background:** Percutaneous Mitral Repair is being developed to treat severe mitral regurgitation (MR), with increasing real-world cases of functional MR(FMR). In the EVEREST(Endovascular Valve Edge-to-Edge Repair Study)II trial, percutaneous device showed superior safety but less reduction in MR at 1 year. 4-year outcomes from EVEREST II trial showed no difference in the prevalence of moderate-severe and severe MR or mortality at 4 years between surgical mitral repair and percutaneous approach.

**Methods:** We analysed retrospectively collected data from one center experience in Italy enrolled from January 2011 to December 2016. The study included 62 patients [mean age 74±11 years, 43 men (69%)] with MR of at least grade 3+. Most of patients had functional MR, were in New York Heart Association (NYHA) functional class III or IV, with a large portion (78%) of mild-to-moderate Tricuspid Regurgitation (TR). One or more clips were implanted in 67 procedures (62 patients).

**Results and Conclusions:** Severity of MR was reduced in all successfully treated patients, 54 (90%) were discharged with MR≤2+ (primary effectiveness endpoint). Clinical 1-month follow-up data showed an improvement in NYHA functional class (42 patients (70%) in NYHA class I-II). 60 of 62 (97%) successfully treated patients were free from death and mitral valve surgery at 1-month follow-up.

### Is it possible to predict short-term prognosis of bedridden, non-oncological patients? Interim analysis of ACLAP-D study (albumin, creatinine clearance, previous admissions, dementia)

M.M. Tiraboschi<sup>1</sup>, S. Ghidoni<sup>1</sup>, A. Zucchi<sup>2</sup>, A. Carobbio<sup>3</sup>, A. Ghirardi<sup>3</sup>, M. Casati<sup>4</sup>, F. Dentali<sup>5</sup>, A. Squizzato<sup>5</sup>, D. Torzillo<sup>6</sup>, A. Altieri<sup>6</sup>, F. De Stefano<sup>1</sup>, V. Gessi<sup>5</sup>, L. Tavecchia<sup>5</sup>, E. Tamborini Permunian<sup>5</sup>, S. Moretti<sup>5</sup>, A. Assolari<sup>1</sup>, D. Cumetti<sup>1</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Medicina Interna ASST, Papa Giovanni XXIII, Bergamo; <sup>2</sup>Servizio Epidemiologico ATS Bergamo; <sup>3</sup>Fondazione per la Ricerca Ospedale Maggiore di Bergamo (FROM) ASST, Papa Giovanni XXIII, Bergamo; <sup>4</sup>Dipartimento Professioni Sanitarie ASST, Papa Giovanni XXIII, Bergamo; <sup>5</sup>Dipartimento

di Medicina Clinica e Sperimentale, Università Insubria, Varese; <sup>6</sup>Medicina Interna, ASST, Fatebenefratelli-Sacco, Università di Milano, Italy

**Background:** Short-term prognosis of bedridden, non-oncological patients is difficult to establish but it has important implications in planning the overall management, especially to avoid futile practices.

**Objectives:** To investigate the risk of 3-months mortality of non-oncological, bedridden patients after discharge from internal medicine ward, with one or more of the following conditions: creatinine clearance <35 ml/min, albuminemia <2.5 g/dL, hospital admissions in the previous 6 months, severe dementia.

**Methods:** ACLAP-D prospective study included all consecutive non-oncological patients admitted to internal medicine ward of Papa Giovanni XXIII Hospital in Bergamo from 20/01/2016 to 31/01/2017. We recorded the following parameters: bedridden condition, creatinine clearance at discharge, albuminemia at admission; hospital admissions in the 6 months before the index admission; severe dementia. We conducted an interim analysis of data from the first 4 months of the study.

**Results:** 380 non-oncological patients were included. 66 (17,4%) patients died within 3-months. Mortality was significantly higher in bedridden patients (39,7%). Creatinine clearance <35 ml/min; albuminemia <2.5 g/dL and severe dementia were other factors independently associated to higher risk of mortality (respectively 30,7%; 31,4%; 37,5%). Creatinine clearance is the powerful predictor of short-term mortality in the bedridden group.

**Conclusions:** In non-oncological, bedridden patients, severely reduced kidney function, hypoalbuminemia and severe dementia are associated to higher risk of short-term mortality.

#### The abdomen ultrasound and the contrast-enhanced abdomen ultrasound associated to the problem solving, efficacious tool of decision making in the hands of the internist for unusual and complex disease

D. Tirotta<sup>1</sup>, G. Eusebi<sup>1</sup>, L. Giampaolo<sup>1</sup>, A. Salemi<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale Cervesi di Cattolica (RN), AUSL Romagna, Italy

**Background:** The use of abdomen US in real time to answer clinical questions (POCUS) is supported by evidence. We think that even the contrast enhanced ultrasound (CEUS) can assist in real time complex clinical decision. We report 3 cases.

**Case series:** A 55 year old female splenectomised presented hepatic lesions on US, suggestive for metastasis. Our US showed isoechoic hepatorenal, splenorenal lesions. For the absence of symptoms and the multiplicity of lesions we supposed a splenosis or metastasis of indolent tumor (neuroendocrine, lymphoma). A CEUS showed inhomogeneous enhancement of the lesions in early phase, intense in late phase, as in the spleen. We concluded for splenosis, confirmed by Gadovist MRI. A 55 year old asymptomatic female showed asthenia, abdominal pain, ascites, multiple ipoechoic lesions of the liver. We think that complete subversion of the liver for metastases in asymptomatic patient with negative US a month ago was unlikely. US and CEUS showed absence of flow in hepatic veins and absence of significant venous washout of the lesions. We concluded for S Budd Chiari. A 68 year old man showed asthenia, multiple liver lesions on CT, important FP elevation (4680 U/l). For the absence of chronic hepatitis history in a western man, we questioned liver primitivity. Negative testicular US. CEUS evidenced the secondary nature: arterious intense uptake and venous washout. Gastric histology showed hepatoid adenocarcinoma.

**Discussion:** These cases show the role of internist in the decision making of unusual and complex disease and how CEUS and US are effective tool associated to problem solving.

#### Cerebral venous thrombosis in a rare case of paroxysmal nocturnal haemoglobinuria, without haemolysis, with a dramatic thrombophilic status

M. Tonani<sup>1</sup>, F. Falaschi<sup>1</sup>, L. Porretti<sup>1</sup>, N. Ghidelli<sup>2</sup>, C. Picone<sup>3</sup>, A. Tenore<sup>3</sup>, C. Ambaglio<sup>2</sup>, A. Martignoni<sup>1</sup>

<sup>1</sup>SS Malattie Cardio e Cerebrovascolari, SC Medicina Generale 2,

Dipartimento Area Medica, Policlinico Fondazione IRCCS San Matteo, Pavia; <sup>2</sup>SC Medicina Generale 2, Dipartimento Area Medica, Fondazione IRCCS Policlinico San Matteo, Pavia; <sup>3</sup>Laboratorio di Citometria Clinica, SC Ematologia, Dipartimento Oncoematologia, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

**Introduction:** CVT are up to 0.5-1% of all strokes. In two thirds of patients a congenital or acquired prothrombotic state is identified.

**Case report:** a 58 years woman with headache is admitted in Stroke Unit (SU) for thrombosis of the superior sagittal sinus. Two years before she had suffered multiple arterial (aortic, renal, iliac, anterior tibial and dorsalis pedis) and venous thrombosis (deep femoral and hepatic veins); autoimmune panel was negative, Thrombotic Thrombocytopenic Purpura, Antiphospholipid Syndrome and congenital thrombophilic state were excluded. Steroids had been started suspecting vasculitis, with clopidogrel and warfarin, the latter discontinued two days before CVT. In SU, although she had not hemolysis, we searched for Paroxysmal Nocturnal Haemoglobinuria (PNH) clone that was positive (>90%) leading to diagnosis. The patient restarted warfarin, continued clopidogrel and was referred to national PNH centre, for eculizumab treatment.

**Discussion:** in our case CVT was associated to an impressive thrombophilic status caused by PNH, a rare acquired disorder of hematopoietic stem cells characterized by haemolytic anaemia, marrow failure and recurrent thrombosis (up to 40%), also in anticoagulant therapy, that can be life-threatening. Eculizumab, an anti-complement humanized monoclonal antibody, may prevent thrombosis recurrence.

**Conclusions:** CVT may complicate a known PNH, in our case CVT brought to PNH diagnosis. Prognosis in PNH is mainly related to thrombosis recurrence, also during anticoagulant therapy, so diagnosis is decisive for the best therapeutic strategy.

#### Durable response in the markers of cholestasis through 18 months of open-label extension with obeticholic acid in primary biliary cholangitis

M. Trauner<sup>1</sup>, F. Nevens<sup>2</sup>, P. Andreone<sup>3</sup>, G. Mazzella<sup>3</sup>, S.I. Strasser<sup>4</sup>, C.L. Bowlus<sup>5</sup>, P. Invernizzi<sup>6</sup>, J. Drenth<sup>7</sup>, P.J. Pokors<sup>8</sup>, J. Regula<sup>9</sup>, A. Floreani<sup>10</sup>, S. Hohenester<sup>11</sup>, V.A. Luketic<sup>12</sup>, M.L. Schiffman<sup>13</sup>, K.J. Van Erpecum<sup>14</sup>, V. Vargas<sup>15</sup>, C. Vincent<sup>16</sup>, B. Hansen<sup>17</sup>, L. Macconell<sup>18</sup>, T. Mormon<sup>18</sup>, D. Shapiro<sup>18</sup>

<sup>1</sup>Medical University of Vienna, Vienna, Austria; <sup>2</sup>UZ Leuven, Leuven, Belgium; <sup>3</sup>Dipartimento di Scienze Mediche e Chirurgiche, University of Bologna, Bologna, Italy; <sup>4</sup>Royal Prince Alfred Hospital, Sydney, NSW, Australia; <sup>5</sup>University of California-Davis, Sacramento, CA, United States; <sup>6</sup>Humanitas Clinical and Research Center, Rozzano, Italy; <sup>7</sup>Radboudumc Nijmegen, Netherlands; <sup>8</sup>Scripps Clinic, La Jolla, CA, United States; <sup>9</sup>Cancer Centre, Warsaw, Poland; <sup>10</sup>Università di Padova, Padova, Italy; <sup>11</sup>LMU University of Munich, Munich, Germany; <sup>12</sup>McGuire DVAMC and Virginia Commonwealth University School of Medicine, Richmond, VA, United States; <sup>13</sup>Liver Institute of Virginia, Newport News, VA, United States; <sup>14</sup>UMC Utrecht, Utrecht, Netherlands; <sup>15</sup>Hospital Vall d'Hebron, Universitat Autònoma, CIBEREHD, Barcelona, Spain; <sup>16</sup>Centre Hospitalier Universitaire de l'Université de Montréal-St. Luc, Montréal, QC, Canada; <sup>17</sup>Erasmus MC, University Medical Center Rotterdam, Rotterdam, Netherlands; <sup>18</sup>Intercept Pharmaceuticals, Inc., San Diego, CA, United States

**Background:** Obeticholic Acid (OCA) is a potent FXR agonist indicated for treatment of primary biliary cholangitis (PBC). POISE was a double-blind (DB), placebo (PBO)-controlled, Phase 3 trial which demonstrated efficacy and safety of OCA over a 12-month (Mo.) period. 97% of patients completing the DB phase enrolled in an ongoing open-label extension (OLE). The OLE aim is to assess the durability of response to OCA.

**Methods:** Inclusion criteria: PBC diagnosis, ALP $\geq$ 1.67x ULN and/or total bilirubin (Bili) >ULN to <2x ULN, on a stable UDCA dose /unable to tolerate UDCA. Patients were randomized to: PBO, OCA 5-10mg (up-titration based on response and tolerability), or OCA 10mg. In the OLE, all patients initiated treatment with 5mg OCA with the option to up-titrate every 3 Mos.

**Results:** Both OCA groups demonstrated reductions in ALP after 12 Mos. of DB treatment (PBO: -12 $\pm$ 80; OCA 5-10mg: -106 $\pm$ 87, p<0.0001; OCA 10mg: -122 $\pm$ 75, p<0.0001). This response was durable through Mo. 18 of OLE treatment (PBO: -98 $\pm$ 70, p<0.0001 OCA 5-10mg: -111 $\pm$ 90, p<0.0001; OCA 10mg: -107 $\pm$ 91,

$p < 0.0001$ ). After 12 Mos. of DB treatment, Bili ( mol/L) increased in the PBO group ( $1.5 \pm 4.3$ ,  $p < 0.05$ ), but remained stable in OCA 5-10mg and OCA 10mg groups ( $-0.6 \pm 3.5$  and  $-1.2 \pm 4.7$ ). During the OLE, Bili levels remained stable (PBO:  $1.9 \pm 14.0$ ; OCA 5-10mg:  $-0.3 \pm 3.9$ ; OCA 10mg:  $-1.3 \pm 4.5$ ). Patients on OCA in the DB showed a decrease in treatment emergent pruritus during OLE (12 Mos. DB: 56-68%; OLE treatment: 19-36%).

**Conclusions:** OCA treatment improves liver biochemistry, which is sustained throughout the course of the OLE.

#### Thyroid toxicity predictive of survival in metastatic renal cell carcinoma treated with sunitinib: a multicenter retrospective study

F. Zuretti<sup>1</sup>, V. Ferrari<sup>1</sup>, G. Conte<sup>1</sup>, E. Bolzacchini<sup>2</sup>, L. Guasti<sup>1</sup>, A.M. Grandi<sup>1</sup>, F. Dentali<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Circolo, Varese, Università dell'Insubria di Varese; <sup>2</sup>Oncologia Medica, Ospedale di Circolo, Varese, Italy

**Background:** Studies suggested that sunitinib drug-related toxicity may correlate with better prognosis.

**Materials and Methods:** In a retrospective multicenter study we evaluated consecutive patients (pts) with metastatic renal cell carcinoma

(mRCC) treated with sunitinib as first-line therapy. Hypertension, hypothyroidism, thrombocytopenia, neutropenia and anemia were evaluated as toxicities. Overall survival (OS) and progression free survival (PFS) were compared in pts who did/did not develop drug-related toxicity. Prognostic role of pts' characteristics and toxicities was evaluated using the Cox regression model.

**Results:** We evaluated 133 pts: 42% had pre-existing controlled hypertension and 7.5% hypothyroidism. All blood counts were normal before treatment. 62.4% developed at least one toxicity: 37.5% hypothyroidism, 27% thrombocytopenia, 23.3% hypertension and 6% neutropenia. At univariate analysis nephrectomy, favorable MSKCC score, hypothyroidism, neutropenia and hypertension were associated with longer OS; nephrectomy, favorable MSKCC score, male sex, hypothyroidism, neutropenia, hypertension and presence of at least one toxicity with longer PFS. At multivariate analysis hypothyroidism was associated with longer OS ( $p = 0.005$ ) and PFS ( $p = 0.0001$ ); hypertension and neutropenia with longer PFS ( $p = 0.017$ ,  $p = 0.048$ ); nephrectomy with longer OS and PFS ( $p = 0.013$ ,  $p = 0.0001$ ); MSKCC score with longer OS ( $p = 0.026$ ).

**Conclusions:** In mRCC pts treated with sunitinib, drug-related toxicity, in particular hypothyroidism, seems associated with a more favorable treatment response.





## POSTERS

### Treatment of anxiety and panic due to breathing pattern disorders with anxiolytics versus breathing rehabilitation

A. Aceranti<sup>1</sup>, M. Tuvinielli<sup>2</sup>, S. Bottinelli<sup>3</sup>, S. Vernocchi<sup>1</sup>, A. Palazzolo<sup>2</sup>

<sup>1</sup>Istituto Europeo di Scienze Forensi e Biomediche (VA); <sup>2</sup>Accademia Osteopatia Milano, Milano; <sup>3</sup>Axxam Spa, Italy

**Rationale:** Breathing pattern disorders (BPD) are well known to be the cause of different negative effects, psychological, biological and neurological, due to the condition of respiratory alkalosis they can bring and automatically increasing levels of anxiety and apprehension and, consequentially, alter the normal motor control of skeletal musculature and of balance. Diaphragmatic and transversus abdominis tone are key features to provide core stability in presence of any alteration in the support offered to the spine by the muscles of the torso, or any "block" occurring to the diaphragm because of bad posture or compulsory use of the breathing accessory muscles, the tonic and phasic functions of both the diaphragm and transversus abdominis are reduced or absent after about 1 min of hypercapnea. Many cases of anxiety have been found having their origin not in psychological issues but in BPD. Breathing rehabilitation (BR) helps to reduce the negative influences resulting from BPD

**Results:** we have dealt with 13 cases of anxiety which was strongly reduced or resolved, through BR. 9 of these patients had been treated with anxiolytic drugs (alprazolam, diazepam and bromazepam) for weeks, or even months with no success; the other 4 used to take anxiolytic drugs only occasionally when the anxiety was uncontrollable by other methods. All patients were introduced to a project of BR, after a period, variable from 3 to 8 weeks, of rehabilitation 11 patients had resolved the problem and no anxiety or panic had shown again. The other 2 reported to be symptom-free after 10 and 12 weeks.

### Treatment of chronic ulcerative colitis and irritable colon syndrome with drug versus multidisciplinary approach

A. Aceranti<sup>1</sup>, M. Tuvinielli<sup>2</sup>, S. Bottinelli<sup>3</sup>, S. Vernocchi<sup>1</sup>, A. Palazzolo<sup>2</sup>

<sup>1</sup>Istituto Europeo di Scienze Forensi e Biomediche (VA); <sup>2</sup>Accademia Osteopatia Milano, Milano; <sup>3</sup>Axxam Spa, Italy

**Rationale:** Although some of the early investigators considered ulcerative colitis (UC) merely the end result of chronic and persistent diarrhea of the type seen in the irritable colon syndrome (ICS), there is little or no objective evidence to support this view, and it is essential that the physician keeps well in mind the pathologic features of the disease when postulating relationships to emotional factors. Psychodynamic interpretations of psychosomatic disease, which may determine treatment and management strategy should be correlated with physiological knowledge of the disease if any significant contributions are to be made to understanding etiologic factors.

**Results:** we noted that in the 15 cases of chronic UC or ICS resistant to classic therapy with antispasmodics, antitomotility drugs and low-dose antidepressants, 7 patients were definitely neurotic and had pronounced emotional disturbances. In the other 8, it was noted that "allergic and psychologic" features were prominent. In 7 cases it was possible to attribute the relapses in this series to emotional disturbances; in 2 cases to infections of the respiratory tract, in 2 cases the causes were identified in a wrong diet and in 4 cases to physical fatigue.

**Conclusions:** Psychological assessment should be instituted early and must be skillful and often it may have to extend deep into the emotional substrate. Being able to successfully combine psychological help, lifestyle major adjustment and drugs will help to stem, or solve, the problem and contain the costs.

### Treatment of heartburn and gastroesophageal reflux disease with H2 blocker and PPI versus lifestyle change

A. Aceranti<sup>1</sup>, M. Tuvinielli<sup>2</sup>, S. Bottinelli<sup>3</sup>, S. Vernocchi<sup>1</sup>, A. Palazzolo<sup>2</sup>

<sup>1</sup>Istituto Europeo di Scienze Forensi e Biomediche (VA); <sup>2</sup>Accademia Osteopatia Milano, Milano; <sup>3</sup>Axxam Spa, Italy

Sleep bruxism has been associated with arousal response and has been reported to overlap with gastroesophageal reflux disease (GRD) in many patients. Among various phenomena occurring during sleep in humans, nocturnal gastroesophageal reflux has been found to be closely associated with sleep arousal such as micro-arousal supine position, and swallowing for esophageal lubrication (e.g., acid clearance). Sleep bruxism and gastroesophageal reflux are known for several common features. We dealt with 8 cases presenting both day heartburn and night heartburn. They were in treatment either with H2 blockers or PPI with poor results, if any. Common causes were found: in 5 cases the patients used to eat a heavy meal for dinner and then lie on their back; 2 patients were found with chronic obstructive pulmonary disease; 1 patient was a postmenopausal woman on hormone replacement therapy; 6 patients were smokers. All presented a very stressful life or previous very stressful situations. Major lifestyle changes and a re-education of the masticatory pattern and muscles was highly recommended to the patients. Only 5 out of 8 decided to accept both the lifestyle changes and the re-education process. 3 patients did not accept the re-education and had some benefit from the lifestyle changes but some PPI were needed from time to time. Among those who accepted the re-education 4 totally resolved the problem within 24 weeks and 1 was addressed to a specialist for evaluation in suspect of hiatal hernia. Sleep bruxism and nocturnal GRD are common in patients with obstructive sleep apnoea.

### Non-invasive ventilation in the emergency department: determinants of length of staying and the impact on the continuity of care

D. Agostinelli<sup>1</sup>, M. Cavazza<sup>2</sup>, R. Lazzari<sup>2</sup>, E. Martino<sup>1</sup>, R. Voza<sup>2</sup>, R. Ferrari<sup>2</sup>

<sup>1</sup>Medicina Interna, Policlinico Sant'Orsola - Malpighi, Dipartimento Medico della Continuità Assistenziale e delle Disabilità, Università degli Studi, Bologna; <sup>2</sup>Medicina d'Urgenza e Pronto Soccorso, Policlinico Sant'Orsola - Malpighi, Dipartimento dell'Emergenza - Urgenza, Azienda Ospedaliero Universitaria, Bologna, Italy

**Introduction:** In last decades early Non-Invasive Ventilation (NIV) has been increasingly applied to treat Acute Respiratory Failure (ARF).

**Aims and Methods:** To identify factors related to the needed length of NIV in ARF before shifting to standard oxygen therapy (O2tp). In an observational study we enrolled every unselected patients early treated with NIV for ARF in the Emergency Department (ED) in a 3 months time. According to main cause of ARF (Cardiogenic [C], broncho-pulmonary [BP], mixed, others) and past medical history we analyzed differences in time to resolution [tR] of the acute phase (defined as NIV length before shifting to O2tp for almost 48 hours continuously).

**Results:** 149 patients included (media 1.66/day). tR was significantly higher in case of chronic BP disease (media 1100 vs 377'; CI 95% 744-1453' vs 240-514'; p<0.01). Cases with acidosis and hypercapnia had a slightly higher tR (p=0.07 and 0.08, respectively). NT-proBNP was not related with tR in any studied group. tR in C-ARF patients was not different with or without chronic BP disease.

**Conclusions:** Due to differences in tR for ARF cases treated with NIV in the ED, some clinical and management suggestions can be

drawn. Patients with a chronic BP disease and having a BP-ARF should be admitted to a High Medical Dependency Unit able to provide a predictably longer NIV duration. The treatment of patients affected by a C-ARF should be carried out inside the ED for the early and short hyper-acute phase up to clinical stability, and the continuity of care during hospitalization could be safely provided by a regular ward.

### Appropriatezza prescrittiva di antibiotici ad alto impatto economico ed ad alto rischio di sviluppo di resistenze in un reparto di Medicina Interna

G. Aiosa<sup>1</sup>, P. Davio<sup>1</sup>

<sup>1</sup>Medicina Interna ASO "S.S. Antonio e Biagio & C. Arrigo", Alessandria, Italy

**Background:** Si è valutata l'appropriatezza prescrittiva di antibiotici ad alto impatto economico e ad alto rischio di sviluppo di resistenze in un reparto di MI.

**Materiali e Metodi:** Sono state esaminate per un periodo di tre mesi le richieste di antibiotici verificando, attraverso la revisione critica della cartella, la congruità della prescrizione secondo le linee guida aziendali e del dosaggio dopo correzione per il filtrato glomerulare.

**Risultati:** Il 47,6% delle prescrizioni (10 su 21) non soddisfaceva i criteri di appropriatezza, il dato non era influenzato dalla consulenza specialistica infettivologica e/o dalla presenza di antibiogramma, la durata della terapia era spesso eccessiva e non veniva effettuata de-escalation, gli antibiotici più frequentemente coinvolti risultavano i carbapenemici.

**Conclusioni:** Si è prodotto un protocollo di reparto per la terapia antibiotica empirica basato sull'interessamento d'organo basato sull'epidemiologia aziendale e revisione di letteratura, mirato a stimolare l'utilizzo di antibiotici a basso impatto economico e a minor rischio di sviluppo di resistenze. La nuova modulistica prevista in cartella per la prescrizione prevede i seguenti campi: motivazione della prescrizione, ora di inizio/modifiche della terapia, sede dell'infezione (probabile o certa), correzioni di dose per IR, le consulenze infettivologiche, durata della terapia guidata dalla clinica e dai biomorali, la de-escalation e lo score News per valutazione della criticità del paziente. È stato previsto un controllo di aderenza con analisi trimestrale delle cartelle cliniche.

### Sarcoidosis clinic, a series of 60 patients

G. Alari<sup>1</sup>, M. Dieli<sup>1</sup>, L. Maglio<sup>1</sup>, A. Cammà<sup>1</sup>, M. Buelli<sup>2</sup>, I. Oppedisano<sup>1</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Medicina Interna, Hospital Papa Giovanni XXIII, Bergamo; <sup>2</sup>Ematologia, Hospital Papa Giovanni XXIII, Bergamo, Italy

Sarcoidosis is a systemic granulomatous disorder of unknown etiology. Although lungs are the most affected organs, extra pulmonary involvements are quite common. Lymph nodes, liver, spleen, eyes, bones and joints, kidney, skin, heart, neurological system can be affected with a plethora of non-specific symptoms. Starting in 2011 we established a clinic to diagnose, and treat Sarcoidosis (or potential alternative diagnosis) with prevalent extra pulmonary manifestations. We evaluated 60 pts (26 males, 34 females): in 52 Sarcoidosis was confirmed. An alternative diagnosis was found in 8: 5 had TBC, 1 Hyper IgG4 syndrome, 1 Kikuchi disease, 1 Staphylococcus infection. Mean age at diagnosis was 40 yrs (range 23-72), but was 66 yrs in pts with alternative diagnosis. Most pts with Sarcoidosis had multiple organs involvement: 51.9% lungs, 19.2% spleen, 71.1% lymph nodes, 17.3% liver (2 cholestatic hepatitis), 7.7% eyes (uveitis), 13.5% hypercalcemia/hypercalciuria/renal stones, 19.2% skin, 13.5% bones, 5.8% pericardium, 11.5% neurological system (one myelitis), 1.92% heart, 1.9% oropharynx, 5.7% lacrimal glands/paranasal sinuses. 30 pts (57.7%) were treated with Steroids, 27 (51.9%) with Hydroxychloroquine, 2 (3.8%) with Azathioprine, 3 (5.8%) with Methotrexate; 11 (21.2%) had only a clinical follow-up. In 3 elderly pts with histologically confirmed Sarcoidosis a concomitant neoplasm was present. Sarcoidosis is a challenging disease for internists.

### Pregnancy related severe hypertriglyceridemia with hypercholesterolemia: a case report

M. Alessandri<sup>1</sup>, C. Caffarelli<sup>1</sup>, C. Mattaliano<sup>1</sup>, P. Carrai<sup>1</sup>, S. Gonnelli<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna, Università degli Studi di Siena, Siena, Italy

**Introduction:** Serum triglyceride (TG) and total cholesterol (TC) become altered during pregnancy. In rare instances, sometimes associated with genetic forms of hyperlipidemia, women can develop pregnancy related hypertriglyceridemia (HTG), whose complications, namely acute pancreatitis and hyperviscosity syndrome, may be life-threatening. In particular, a very rare subgroup develops severe HTG, defined as plasma TG greater than 1000 mg/dl.

**Case report:** A 37-yr-old primiparous woman was admitted to Hospital to undergo caesarean section because of breech presentation at term. During the hospital stay the patient was diagnosed to have severe HTG (9950 mg/dl) with very high values of TC (1257 mg/dl) and acute pancreatitis. After delivery the patient was treated by means of therapeutic plasma exchange, with a rapid and almost complete resolution of hyperlipidemia (TG 617 mg/dl; TC 275 mg/dl). After discharge the woman was followed up at our Center. A treatment with rosuvastatin and omega-3-ethyl esters was prescribed, determining a further reduction of plasma levels of TC (96 mg/dl) and TG (95 mg/dl). At present, the patient is healthy and still continuing therapy.

**Discussion:** We report this case of severe HTG in pregnancy, pointing out the dramatically high levels of serum TG and TC in a patient without obvious signs of hyperlipidemia syndrome. A careful surveillance of lipid levels in pregnancy is also proposed in women not affected by hyperlipidemia.

### Café au lait spots and gastrointestinal stromal tumors, a rare association in a rare tumor that poses management problems

M. Alessiani<sup>1</sup>, V. Gatti<sup>1</sup>, A. Viezzoli<sup>1</sup>, P. Cardellini<sup>2</sup>, L. Magnani<sup>2</sup>, R. Puce<sup>3</sup>, V. Perfetti<sup>3</sup>

<sup>1</sup>Chirurgia Generale, Ospedale di Stradella, ASST Pavia; <sup>2</sup>Medicina Interna, Ospedale di Voghera, ASST Pavia; <sup>3</sup>Medicina Interna, Ospedale di Varzi, ASST Pavia, Italy

Duodenal GIST may frequently require duodeno-cephalo-pancreatectomy (DCP). Neoadjuvant treatment with imatinib is usually proposed with the intent to reduce the tumor mass and allow conservative surgery. Neurofibromatosis type 1 features café au lait spots and predisposition to various cancers, including GIST (5-25% of NF1 patients). NF1-GISTs are usually diagnosed at an earlier age, are often multiple, both synchronous and metachronic, and are more frequently observed in the small intestine than in the stomach, especially in the duodenum. NF1-GISTs usually do not show mutations in the c-KIT or the PDGFRA genes, and are characterized by reduced-poor sensitivity to imatinib. We present a case of duodenal NF1-GIST in a 43 year-old-patient recently admitted for acute anemia related to GI tract hemorrhage. CT scan showed a mass of 3 cm in the third duodenum portion, nearby the pancreatic head. Multiple café au lait spots and lipomas were present, and indeed familial NF1 was present. Echoendoscopy suggested radical conservative surgery. This finding, together with knowledge of the associated genetic disease, guided our decision to perform surgery directly, and radical duodenal segmental resection was performed. Histology showed a low-risk GIST, molecular characterization is pending. The question remains on how these patients should be follow-up, since the chance of new small intestine GIST in NF1 is not well established. This case illustrates how modern approach in medicine might be complex and needs multidisciplinary.

### Una famiglia troppo "unita". Un complesso caso di trombofilia

F.S. Alfano<sup>1</sup>, E. Nigro<sup>1</sup>, D. Mattia<sup>1</sup>, G. Pipolo<sup>2</sup>, S. Pezzella<sup>2</sup>

<sup>1</sup>PO. S. Francesco d'Assisi, Oliveto Citra (SA); <sup>2</sup>PO. S. Maria della Speranza, Battipaglia (SA), Italy

**Premessa:** La trombofilia è la tendenza a sviluppare trombosi a

partire da fattori predisponenti che possono essere genetici, acquisiti o entrambi. La trombofilia congenita (deficit di Proteina C, di Proteina S, AT III) riguarda circa l'1% della popolazione, mentre la trombofilia acquisita si configura quasi esclusivamente nella Sindrome da Lupus Anti-Coagulant. Il rischio trombotico per un paziente affetto dal deficit di un solo fattore della coagulazione aumenta di circa 8 volte rispetto alla popolazione totale, ma solo il 10% dei pazienti con TVP è portatore di trombofilia.

**Caso clinico:** G.N., maschio di 21 anni affetto da TVP della poplitea destra non traumatica. Anamnesi personale muta per patologie degne di nota. Anamnesi familiare positiva. G.A., la madre, 44 anni, emiplegica per un ictus all'età di 40 anni, abortività ripetuta e pregressa TVP. G.V. il padre, 50 anni, riferiva in anamnesi un episodio di TVS posttraumatica

**Materiali e Metodi:** L'intera famiglia è stata sottoposta a screening per trombofilia. G.N. (figlio) presentava deficit di proteina C e proteina S, con positività del LAC. G.A. (madre) mostrava deficit di proteina C e positività per LAC. G.V. (padre) non presentava alterazioni coagulative.

**Conclusioni:** L'associazione di più deficit coagulativi che provocano la comparsa di trombofilia sia genetica che acquisita rappresenta il risultato di un rarissimo mix genetico, meritevole di descrizione sia per la eccezionale rarità che per le implicazioni terapeutiche ed etiche derivanti.

### Management of hypocalcaemia in hospitalized patients

E. Anastasio<sup>1</sup>, A. Ilardi<sup>1</sup>, I. Ronga<sup>1</sup>, M. D'Avino<sup>1</sup>, G. Di Monda<sup>1</sup>, R. Muscherà<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>Dipartimento Medico Polispecialistico, UOC Medicina Interna 3, A.O.R.N. "Antonio Cardarelli", Napoli, Italy

**Introduction:** Hypocalcaemia is an electrolyte imbalance frequently observed in hospitalized patients. This derangement has a variable clinical presentation: often it is a laboratory disorder completely asymptomatic. Following implementation of treatment protocols of the main electrolytic disorders, we analyze the management of hypocalcaemia through Calcium Gluconate prescription, that was often the first therapeutic approach in a previous study, independently from the real decrement of the serum ionized calcium.

**Materials and Methods:** Analysis of data related to 406 patients admitted to a ward of Internal Medicine ("Antonio Cardarelli" Hospital, Naples), showed a hypocalcaemia in 14.53% of cases, but in 50% of patients with sepsis. In 74.6% of hypocalcaemic patients, a decrease in albumin levels was recorded. On admission, the pH was detected in 95% of subjects.

**Results:** The hypocalcaemia-related symptoms and/or ECG signs were recorded in 13 patients (22%). Hypomagnesaemia, blood transfusions and acute renal failure were also associated with calcium imbalance. Calcium Gluconate was prescribed in 30,5% of cases of hypocalcaemia, but only in 3,4% regardless the albumin concentration.

**Conclusions:** The treatment of hypocalcaemia depends on several factors: causes and severity of the disorder, the onset speed, the presence of symptoms. Clinical audit and implementation of guidelines are valuable tools for improving the therapeutic appropriateness.

### Neurosarcoidosis treated with infliximab

C. Antonaglia<sup>1</sup>, M. Santagiuliana<sup>1</sup>, R. Cifaldi<sup>1</sup>, M. Confalonieri<sup>1</sup>

<sup>1</sup>Ospedali Riuniti, Trieste, Italy

**Introduction:** Sarcoidosis is a multi-organ inflammatory disorder of unknown origin, characterized by T-lymphocyte and mononuclear phagocyte infiltration in the affected organs, granuloma formation. The inflammatory process may be accelerated by the release of tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) from resident macrophages, resulting in further recruitment of inflammatory cells. CNS infiltration occurs in approximately 5% of patients with sarcoidosis; it is associated with a less favorable course and accounts for a disproportionate amount of disability. Neurosarcoidosis is often difficult to manage.

**Aims:** In one of the larger clinical series, over 70% of patients re-

lapsed or progressed despite treatment with corticosteroids and oral immunosuppressant agents. Infliximab is a chimeric IgG monoclonal antibody directed against TNF- $\alpha$ .

**Methods and Results:** We describe a patient with neurosarcoidosis with acutely hydrocephalus, who was first treated with steroids without a clinical response and after experimentally treated with infliximab and micofelonato therapy. Three months after this treatment was started his symptoms completely resolved. Repeated RMI showed a completely resolution of SNC involvement.

**Conclusions:** Because TNF- $\alpha$  may be a crucial cytokine in sarcoidosis, and infliximab has proved successful in treating other chronic inflammatory diseases, there is a rationale for treating refractory sarcoidosis with infliximab too. OUR case support the role of infliximab and micofelonato in the treatment of refractory neurosarcoidosis.

### Procalcitonin: a marker of disease staging in hepatocellular carcinoma?

E. Antonielli<sup>1</sup>, M. Le Grazie<sup>2</sup>, G. Dragoni<sup>2</sup>, L. Fedeli<sup>1</sup>, F. Marra<sup>2</sup>, E. Blasi<sup>1</sup>, S. Baroncelli<sup>2</sup>, A. Crociani<sup>1</sup>, G. De Marzi<sup>1</sup>, L. Corbo<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze;

<sup>2</sup>Medicina Interna ed Epatologia, Dipartimento di Medicina Sperimentale e Clinica, AOU Careggi, Firenze, Italy

A 54-year-old man was admitted to hospital for weight loss and cholestasis at laboratory tests. Patient's history included HCV-related liver disease. His blood pressure was normal and he had no fever. An arterial blood gas test revealed no sign of respiratory failure and lactate values were normal. Laboratory tests showed no increase in inflammatory markers (no leukocytosis, RCP<9 mg/L) but elevated value of PCT (314 ng/ml),  $\alpha$ -fetoprotein and HCV-RNA. At urine examination no sign of infection. Blood and urine cultures resulted negative. A total body CT scan was negative for infection, but showed hepatic lesion compatible with hepatocellular carcinoma (HCC) with liver, bone and lymphnodes metastases. A treatment with broad-spectrum antibiotic therapy was done without normalization of PCT levels. Despite starting treatment with Sorafenib, death occurred after few months. PCT is widely used for the diagnosis of bacterial infections, however serum PCT levels are frequently elevated in absence of bacterial infection in patients affected by various malignant tumors, in particularly in neuroendocrine cancers (small-cell lung and medullary thyroid cancer), hepatocellular tumors and in those with liver metastases. Some studies suggested that, in HCC, PCT elevations can be related to grade of necrosis and disease stage. In conclusion, in patients with HCC without suspicion of blood stream infection, elevated levels of PCT may be a predictor of advanced or even metastatic cancer. Indeed in patients with HCC, procalcitonin should be interpreted cautiously and could be a future marker of disease severity and staging.

### Clinical characteristics and risk stratification of septic patients in Internal Medicine Units

E. Antonielli<sup>1</sup>, C. Monacci<sup>1</sup>, E. Blasi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, S. Baroncelli<sup>1</sup>, L. Corbo<sup>1</sup>, C. Florenzi<sup>1</sup>, G. De Marzi<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

**Objectives:** Despite advancement in diagnosis and therapy, sepsis continues to be a relevant clinical problem due to its increased spread and high mortality. Considering the high rate of mortality associated with this condition, it is very important to find a clinical and prognostic score in order to identify as soon as possible those patients at higher risk of death and complications.

**Methods:** A retrospective study on adult patients with sepsis, admitted to two internal medicine wards from January 2014 to December 2015. Clinical characteristics and outcome, infection sites, length of stay, Charlson Comorbidity score, quick Sepsis related Organ Failure Assessment (qSOFA) and Mortality in Emergency Department Sepsis (MEDS) score were collected.

**Results:** 233 patients were included in the study and 76 patients (32,6%) had diagnosis of severe sepsis or septic shock. Pneumonia (p=0,001) and urinary infections (p=0,031) were significantly associated with an increased mortality risk. Pneumonia was a sig-

nificant independent prognostic factor ( $p > 0,05$ ), whereas urinary infection was significantly associated with longer length of stay ( $p = 0,03$ ). In multivariate analysis, qSOFA and MEDS score were independently associated with a worse outcome ( $p < 0,0001$  and  $p < 0,0001$ ).

**Conclusions:** Clinical characteristics and scoring system are useful to evaluate prognosis and should be included in a path to optimize care of patients with sepsis admitted to internal medicine units.

### Biohumoral markers of myocardial injury as predictors of severity and mortality in patients with sepsis admitted to Internal Medicine Units

E. Antonielli<sup>1</sup>, G. Brunetti<sup>1</sup>, S. Baroncelli<sup>1</sup>, E. Blasi<sup>1</sup>, G. Cioni<sup>1</sup>, G. De Marzi<sup>1</sup>, L. Corbo<sup>1</sup>, G. Zaccagnini<sup>1</sup>, A. Mancini<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

**Background:** Sepsis is a condition with a high mortality and morbidity rate. The identification of prognostic factors is crucial for a correct management of patients. We analyzed the validity of the biomarkers of myocardial injury as predictors of outcome in septic patients admitted to an Internal Medicine Unit.

**Methods:** This retrospective study enrolled 233 patients with diagnosis sepsis, admitted to an Internal Medicine Unit between 1<sup>st</sup> January 2014 and 31<sup>st</sup> December 2015. We collected data about biohumoral parameters, paying attention in NT-proBNP and cardiac troponin I (TnI) levels at admission. We evaluated the correlation between these biomarkers and the patients' outcome in term of in-hospital mortality.

**Results:** The in-hospital mortality was 14,2%. The levels of NT-proBNP were higher in patients with adverse outcome, even though non significantly (67109 (762-287040) vs 4171 (27-10228);  $p = 0,06$ ). The levels of TnI were significantly higher in patients with adverse outcome (0,17 (0-7) vs 0,03 (0-18);  $p = 0,013$ ) with a significant risk of negative outcome for patients with TnI  $> 0,04 \mu\text{g/l}$  ( $p = 0,009$ ; OR=3,75) irrespective of the presence of defined acute coronary syndrome. At multivariate analysis, TnI  $> 0,04 \mu\text{g/l}$  was a strong predictor of mortality independently from comorbidities (IC 95%, 0,1-1,1;  $p < 0,005$ ).

**Conclusions:** The cardiovascular involvement in sepsis is frequent and prognostically relevant: the evaluation of levels of TnI at admission may represent a predictor of worse outcome and may warrant further investigations in appropriately selected patients.

### A case of unrecognized Guillain-Barré syndrome

C. Appice<sup>1</sup>, E. Settimo<sup>1</sup>, P. Buonamico<sup>1</sup>, P. Portincasa<sup>1</sup>

<sup>1</sup>Medicina Interna Universitaria "A. Murri", Bari, Italy

A 61 years old woman was admitted to neurosurgery dpt for head and neck injury with fracture of C1 fever and confusion, with progressive paralysis. Then, after 25 days, due to septic status with fever, acute kidney failure, electrolyte imbalance, worsening of flaccid quadriplegia, chest x-ray evidence of bronchopneumonia, she was addressed to Internal Medicine dpt where head and vertebral MRI confirmed C1 fracture and was negative for cerebral ischemic-haemorrhagic involvement or medullar compression. Due to the symptoms, namely fever followed by quadriplegia, abolition of swallowing ability, with a negative MRI, we suspected a CRI.MY.NE. or a Guillain-Barré syndrome, suspicion endorsed by the neurologist. Cerebrospinal fluid examination confirmed the diagnosis of Guillain-Barré syndrome. A 7 days immunoglobulin therapy (0,4g/kg/die) was performed with slight improvement of general conditions, with the recovery of some voluntary movements and muscle-tendon reflexes and a complete recovery of swallowing reflex. The patient was transferred to neurorehabilitation dpt where only a partial recovery of autonomy, new septic complications, and no of walking ability were obtained. Our conclusion is that Guillain-Barré syndrome should be immediately suspected in presence of fever followed by limb weakness, respiratory difficulties, or paralysis independently by other stories like injuries or falls that can confuse its clinical presentation. In fact, a delayed diagnosis can severely undermine a full recovery of the nervous function.

### Il dolore addominale: un sintomo sempre insidioso

A. Araldi<sup>1</sup>, D. Giberti<sup>1</sup>, F. Malatesta<sup>1</sup>, B. Parenti<sup>1</sup>, M. Maragna<sup>1</sup>, C. Casali<sup>1</sup>, M.F. Zenobii<sup>1</sup>, M. Silingardi<sup>2</sup>, F. Boni<sup>1</sup>

<sup>1</sup>Unità Internistica Multidisciplinare, Ospedale Civile di Guastalla, AUSL RE; <sup>2</sup>Medicina Interna A, Ospedale Maggiore di Bologna, Italy

T.F. 37 anni, anamnesi muta, accedeva in PS per dolore al fianco destro irradiato in fossa iliaca e testicolo associato a vomito alimentare. Aipiretico, normoteso, obiettività addominale nei limiti; leucocitosi neutrofila, incremento della PCR. Dilatazione calico-pielica del rene di destra all'eco addome, TC senza mdc negativa per litiasi reno-ureterale. Il dolore era poco responsivo agli oppioidi a fronte di un'obiettività addominale non significativa e di un progressivo aumento degli indici di flogosi e della LDH. Nel sospetto di sofferenza ischemica di organi addominali si eseguiva TC con mdc che evidenziava aree ischemiche al polo superiore del rene di destra con alterazioni morfologiche a catena di rosario dell'arteria renale estese all'origine del ramo intralobare superiore da displasia fibromuscolare dell'arteria renale. L'assenza di febbre, di sintomi sistemici e la negatività di ANA e ANCA escludevano la patogenesi vasculitica. Nessun segno di coinvolgimento del circolo cerebrale all'angio-TC encefalo e TSA. Negativo lo screening per la trombofilia. Data la normalità dei valori tensivi, della creatinina e della presenza di un flusso residuo all'ecocolorDoppler dell'arteria renale, non si eseguiva angiografia selettiva e si trattava il paziente con terapia anticoagulante orale per tre mesi. Il dolore addominale si conferma sintomo insidioso perchè coinvolto in numerose diagnosi differenziali ed espressione di patologie rare e dalla presentazione atipica come nel caso di questo paziente affetto da displasia fibro-muscolare dell'arteria renale senza ipertensione.

### A strange case of fever

M. Ardesia<sup>1</sup>, M.C. Giofrè<sup>1</sup>, F. Napoli<sup>1</sup>, S. Tomeo<sup>1</sup>, N. Laganà<sup>1</sup>, D. La Rosa<sup>1</sup>, A. Caruso<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

**Introduction:** Fever of unknown origin is a frequent clinical challenge, particularly in young patients. We report the case of a patient with fever, chest pain and lymphadenopathy.

**Case report:** A 24 years-old caucasian man was admitted to our hospital for low-grade fever and chest pain. Nothing significant to report in history, with the exception of surgery for aortic coarctation. Clinical examination showed arthralgia, malar rash, signs of pleural effusion and palpable lateral cervical, inguinal and axillary lymph nodes. Laboratory tests showed anemia, leukopenia, increased C-reactive protein and ANA +, while instrumental exams showed pleuro-pericardial effusion and multiple enlarged lymph nodes, especially in the neck. Diagnosis of systemic lupus erythematosus was made based on clinical and laboratory-instrumental data, however an axillary lymph node was surgically removed and sent to a specialized center for hematologic disease to be analyzed in suspect of neoplasia: the histological examination showed "Kikuchi lymphadenitis", a benign disease often associated with systemic lupus which present with painful cervical lymphadenopathy.

**Discussion:** Kikuchi-Fujimoto disease is a benign, self-limited illness of unknown etiology, characterized by lymphadenopathy with painful lymph nodes, mild fever, night sweats, flulike symptoms and leukopenia. Rare in Europe, more common in Asia, it mostly affects young patients. This disease should be suspected in young patients with criteria of systemic lupus and superficial lymphadenopathy, as it can be misdiagnosed as lymphoma.

### Fever of unknown origin: a difficult and intriguing case

P. Artom<sup>1</sup>, M. Uccelli<sup>1</sup>, A. Bovero<sup>1</sup>, F. Artom<sup>2</sup>, R. Goretti<sup>1</sup>

<sup>1</sup>S.C. Medicina Interna Ospedale Santa Corona, Pietra Ligure; <sup>2</sup>Malattie Infettive, Genova, Italy

A 45 year old woman was admitted to our hospital for a continuous two weeks FUO, already investigated by microbiological and radiological tests and treated unsuccessfully with amoxicillin/clavulanic acid. She was married, had two children, lived in a city in North Italy, was employee and didn't travel during the previous year. In her medical history: primary hypertension, obesity and pre-diabetes. Physical

examination was normal except for fever (38,4°C). With further tests we detected normocytic anemia, CRP=12,4 mg/dl and mild elevation of AST/ALT; serologic tests for influenza virus A/B, CMV, EBV, HSV, HIV, HCV, HBV, S. typhi, S. paratyphi, Brucella, Borrelia, Weil-Felix test, parasites, blood and urine cultures, ANA, ENA, ANCA, TT echocardiography, PET-TC scan were negative. A diagnosis of mycobacterial disease and sarcoidosis was excluded. Serologic tests for Yersinia spp were in progress. We performed a bone marrow biopsy that showed three epithelioid granulomas (without evidence of micro-organisms using Lennert's-Giemsa stain). After empirical ineffective treatment (ceftazidime+levofloxacin) we started therapy with doxycycline with complete defervescence. We received microbiological laboratory positivity (IgG/IgM) for Yersinia Enterocolitica after hospital discharge. Patient was in good general condition and at a control test after three months antibodies for Yersinia were negative. Few cases of sepsis from Y. Enterocolitica are described. The finding of granulomas in bone marrow biopsy is uncommon and it has never been related to Y. Enterocolitica infection.

### A rare and confusing case of chest pain and anemia

P. Artom<sup>1</sup>, D. Mela<sup>1</sup>, A. Bovero<sup>1</sup>, R. Goretti<sup>1</sup>

<sup>1</sup>S.C. Medicina Interna, Ospedale Santa Corona, Pietra Ligure, Italy

A 54 year old policeman was admitted to the Emergency Room of our hospital for epigastric pain. In his history: competitive sport and seronegative oligoarthritis treated with hydroxychloroquine. Physical examination, chest X-ray and abdominal ultrasound were normal. ECG: sinus rhythm, negative T waves in D1, D2, aVF and V3-V6. All blood tests were normal except for PCR=5.18 mg/dl and D-dimer=4330 ng/ml. A CT scan excluded pulmonary embolism. He was soon discharged with diagnosis of acute pericarditis and therapy with ibuprofen 600 mg q8h and colchicine 1 mg/day. Two days later he stopped colchicine because of diarrhea and he was admitted in the Department of Medicine for persistent fatigue and chest pain. At blood tests only: mild microcytic anemia, CRP=17,97 mg/dl, low transferrin saturation and hypogammaglobulinemia. TT echocardiography showed pericardial effusion and left ventricular hypertrophy. He started corticosteroid therapy and made coronarography (normal). Cardiac MNR confirmed severe left ventricular hypertrophy. ProBNP was 1908 pg/ml. A few days later we detected severe anemia requiring transfusion. Blood was found throughout the colon at colonoscopy (biopsy were made). With immunofixation we detected little serum M component IgGk and urinary free k light chains. PET-TC scan was negative. Bone marrow biopsy showed clonal plasma cells >50% (k light chains) and colon biopsy amorphous material diagnostic for amyloid. A diagnosis of micromolecular multiple myeloma with k light chain and AL amyloidosis with cardiac and intestinal involvement was made.

### Complex regional pain syndrome; an elusive diagnosis

A. Assolari<sup>1</sup>, I. Oppedisano<sup>1</sup>, D. Cumetti<sup>1</sup>, M. Tiraboschi<sup>1</sup>, A. Cammà<sup>1</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Internal Medicine, Hospital Papa Giovanni XXIII, Bergamo, Italy

**Clinical case:** A 23 years old man, from Pakistan, was admitted to our medical division with a 6 months history of left foot pain resistant to analgesics, causing inability to move and a previous hospital admission. Patient's clinical history was unremarkable except for a 9 months earlier scooter fall with left foot traumatism. Just from the beginning, the pain seemed disproportionate in time and degree to anamnestic event and clinical-instrumental findings. Physical exam showed allodynia, darkening skin and trophic changes of the foot. Blood tests for inflammatory or autoimmunity markers were negative. X-rays excluded fractures. US showed edema of subcutaneous tissue, which was confirmed with a foot MRI. On this basis, assuming a case of algodistrophy, a triple-phase bone scintigraphy was performed with evidence of minor radio-tracer uptake in correspondence of localized patchy left foot's bone. After a diagnosis of algodistrophy, a combined therapy with painkillers and neridronate (a bisphosphonate) was started. This allowed initial improvement and the discharge of the patient.

**Conclusions:** Although it is rare, Internists must know algodistro-

phy, also called complex regional pain syndrome. The etiology is unknown, but precipitating factors include injury or trauma. The main clinical symptom is debilitating pain of extremities associated with limited range of motion, skin changes and psychological distress. The diagnosis is based upon clinical criteria and supported by the demonstration of an area of localized osteoporosis. Current treatment involves bisphosphonates.

### An unexpected diagnosis

A. Assolari<sup>1</sup>, I. Oppedisano<sup>1</sup>, M.L. Maglio<sup>1</sup>, D. Cumetti<sup>1</sup>, M. Tiraboschi<sup>1</sup>, A. Valenti<sup>1</sup>, M. Lucà<sup>2</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Internal Medicine, Hospital Papa Giovanni XXIII, Bergamo; <sup>2</sup>Hepatology, Hospital Papa Giovanni XXIII, Bergamo, Italy

**Clinical case:** A 64 years old man was admitted coming from an another Hospital with the diagnosis of new onset cryptogenic decompensated liver cirrhosis to evaluate candidacy for transplant. In his medical history he was subjected to surgery for a pheochromocytoma. Main patient's symptoms were asthenia, weight loss and abdominal circumference increase. Physical exam showed cachexia, massive ascites, peripheral edema. At blood count persistent leucocytosis, despite several cycles of antibiotic therapy, with significant increase of monocytes (>37%), anemia and thrombocytopenia. Other blood tests abnormalities included liver dysfunction. At US and CT hepatosplenomegaly. A bone marrow biopsy was performed to exclude concomitant hematological diseases. The result showed pathological accumulation of CD117 mast cells. Elevated serum levels of tryptase and KIT D816V mutation, which encodes a constitutively activated receptor tyrosine kinase, were detected. A diagnosis of systemic mastocytosis was made and therapy with midostaurin, an orally active molecule inhibiting multiple kinases, was started.

**Conclusions:** Systemic mastocytosis is a myeloid neoplasm characterized by the accumulation of abnormal mast cells in the bone marrow but also in liver, spleen, skin and bone. Infiltration of organs occur with impairment of their function. The prognosis is poor. Recent studies showed the efficacy of midostaurin in producing longer overall survival.

### Comparison between dapagliflozin and empagliflozin in patients with decompensated diabetes mellitus type 2

A. Asti<sup>1</sup>, P. Tirelli<sup>1</sup>, A. D'alessandro<sup>1</sup>, F. Cacciapuoti<sup>2</sup>, S. Nardi<sup>1</sup>, G. Perrone<sup>1</sup>, G. Maresca<sup>1</sup>, V. Langella<sup>1</sup>, G. D'alessandro<sup>1</sup>

<sup>1</sup>UOC Medicina Interna e d'Urgenza P.O. S. Maria di Loreto Nuovo, ASL NA 1;

<sup>2</sup>UOC Medicina d'Urgenza AORN, Cardarelli, Napoli, Italy

Dapagliflozin and empagliflozin are oral antidiabetic drugs belonging to SGLT-2 inhibitors, which reduce the proximal tubule reabsorption of glucose. The aim of our study is to compare the safety and efficacy of these drugs in combination with metformin in patients with persistent HbA1c>7,5%. We enrolled 116 patients (61F,55M) with decompensated type 2 diabetes on maximal dosage of metformin, and we randomly added dapagliflozin 10 mg (58 pts) or empagliflozin (58 pts). Some metabolic variables were registered before starting therapy (T0) and after 6 months (T1). At T1 we registered in DAPA group a significant reduction of FPG (from 201,8 to 126,8 mg/dl), HbA1c (from 9,0 to 7,4%), weight (from 86,7 to 77,5 Kg), BMI (from 30,8 to 29,2 Kg/m<sup>2</sup>), triglycerides (165,9 to 141,1 mg/dl) and MAU (from 27,3 to 16,2 mg/die) without any significant alteration of other variables. In EMPA group we observed a significant decrease of FPG (from 195,3 to 124,8 mg/dl), Hb1Ac (from 8,8 to 7,3%), weight (from 81,8 to 74,7 Kg), BMI (from 30,1 to 29), LDL (from 106,9 to 86,7 mg/dl) and MAU (from 29,2 to 12,7 mg/die), all other variables were similar between T0 and T1. Among adverse effects, 3 patients (1 in DEPA and 2 in EMPA group) presented vulva fungal infection, and 4 cases (2 DAPA and 2 EMPA) of urinary infection were reported. Two patients leave the study, 1 in EMPA for frequent urination and quality of life impairment, 1 in DAPA for recurrent urinary infection. Our results suggest that dapagliflozin and empagliflozin represent an important second-line therapeutic option for treating patients with decompensated type 2 diabetes on maximum dosage of metformin.

### The management of brain abscess: an internist competence?

T.M. Attardo<sup>1</sup>, M.A. Arces<sup>1</sup>, F. Brovelli<sup>2</sup>, S.A. Cantarella<sup>1</sup>, A.P. Cavaleri<sup>1</sup>, C. Insalaco<sup>1</sup>, A. Trento<sup>1</sup>, A. Trigona<sup>2</sup>, G. Augello<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento; <sup>2</sup>Servizio di Radiologia, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento, Italy

**Introduction:** The brain abscess remain a serious central nervous system problem despite advances in neurosurgical, neuroimaging, microbiological techniques and the availability of new antibiotics.

**Case report:** 57 Years patient, with type 2 diabetes, smoker and potus, from 20 days suffers of headache, fever and focal neurological deficit. The brain TC show a focal alteration hypodense of 3 cm diameter. Normal is count of withe blood cells; the inflammation markers are very high. The brain MRI discloses two lesions of 35 and 10 mm diameter with sovrafluida signal features and peripheral labrum complete with contrast enhancement (c.e). There is c.e. of adjacent leptomeninges and subtotal left sinus thrombosis until internal jugular vessel and his first extracranial swelling and omastoiditis left. No surgical indication at the neurosurgical consultation. Our drug choices: Linezolid 600 mg q12h+Meropenem 2 g q8h+ Metronidazole 500 mg q8h+Ceftriaxone 2 g q12h. In addition, LMWH q12h, anticonvulsant and steroid therapy. Sudden is the clinical improvement and the decrease of the size of the abscess to MRI. The patient continues still this therapy.

**Discussion:** There are no pragmatic rules for treatment of brain abscess and each case must be individualized and treated on its own merits. There are presently no guidelines for the management of cerebral abscesses and many controversial issues remain unresolved, including the selection of patients who can be treated conservatively.

**Conclusions:** Our patient is responding to medical treatment. What is right do in clinical practice?

### Short versus long course antibiotic therapy for acute pyelonephritis in adults: A systematic review and meta-analysis

T.M. Attardo<sup>1</sup>, A.L. Patti<sup>2</sup>, S. Piras<sup>3</sup>, L. Tesei<sup>4</sup>, D. Tirota<sup>5</sup>, M. Tonani<sup>6</sup>, F. Berti<sup>2</sup>

<sup>1</sup>UO Medicina Interna, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento; <sup>2</sup>UO Medicina Interna, Azienda Ospedaliera S. Camillo Forlanini, Roma; <sup>3</sup>UO Medicina Interna Ospedale Civile, Alghero; <sup>4</sup>Dipartimento Medico A.V. Ancona ASUR Marche; <sup>5</sup>UO Medicina di Cattolica (RN), Ospedale Cervesi, AUSL Romagna; <sup>6</sup>UO Medicina 2, IRCCS Policlinico San Matteo, Pavia, Italy

**Background:** Acute pyelonephritis (aPN) is a severe form of urinary tract infection. Diagnosis is based on clinical (fever, costovertebral pain and dysuria) and microbiological criteria (pyuria and a positive urine culture with  $\geq 10^4$  cfu per milliliter of urine). Despite the high incidence in the community setting, there is no consensus on the optimal duration of treatment.

**Objective:** We compared short-course (from 4 to 14 days) with long-course therapy (from 7 to 42 days but at least 2 days longer than the corresponding short-course) with the same antibiotic regimes, administered by the same route and in the same total daily dosage for aPN, in terms of effectiveness and tolerability.

**Methods:** We searched MEDLINE, EMBASE and CENTRAL up to June 2016 for RCT and performed a systematic review and meta-analysis of 4 selected RCT(379 patient).

**Results:** We did not find any significant differences in clinical success (number of subjects with resolution of symptoms, signs and microbiologic criteria) (RR 1.01; 95% CI, 0.96-1.07), bacteriological efficacy (RR 0.99; 95% CI, 0.92-1.07), re-infection (RR 2.40; 95% CI, 0.68-8.49) and clinical relapses at 4-6 weeks after the end of treatment(RR 0.83; 95% CI, 0.28-2.46). Long-term therapy seemed to prevent more recurrences(RR 2.39; 95% CI, 1,19-4,83).

**Conclusions:** Reduction in the duration of the administered regimes could minimize the risk for the emergence of new resistant strains. This review suggests that short-term treatment for aPN is equivalent to longer term treatment in terms of clinical success, microbiological success and tolerability.

### Non traumatic spontaneous dissection of the left internal carotid artery: description of a case with cranial nerves palsy

T.M. Attardo<sup>1</sup>, F. Brovelli<sup>2</sup>, M.A. Arces<sup>1</sup>, S.A. Cantarella<sup>1</sup>, A.P. Cavaleri<sup>1</sup>, C. Insalaco<sup>1</sup>, A. Trento<sup>1</sup>, A. Trigona<sup>2</sup>, G. Augello<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento; <sup>2</sup>Servizio di Radiologia, Ospedale Barone Lombardo, Canicattì, ASP1, Agrigento, Italy

**Introduction:** Spontaneous dissection of the internal carotid artery (ICAD), a potentially serious and probably underdiagnosed condition, is a well recognized cause of headache and stroke; lower cranial nerves palsy as a complication of dissection is rare.

**Case report:** 58 Years patient was admitted to our Medicine for severe headache (including neck and facial pain) localized on the left side. At the visit the patient has focal neurological deficits of facial, trigeminal and hypoglossal nerves. Initial brain CT is performed; because the Ct were negative we follow up by brain MRI that had disclosed a dissection limited to the left internal carotid. Indeed MRI showed a semilunar hyperintensity (the mural hematoma) partially surrounding a circular hypointense signal (the residual lumen). Anticoagulation with LMWH q12h followed by vitamin K antagonists (VKA) has been started. The monitoring is demonstrated in the brain MRI the partial recanalization of internal carotid.

**Conclusions:** Dissection of the internal carotid artery, without preceding trauma, is a rare event. A high index of suspicion is required to make this difficult diagnosis. The case demonstrate that familiarity with the initial symptoms, especially headache, and performance of MRI without delay are the cornerstones of an early diagnosis. Immediate anticoagulation to prevent fatal cerebral embolism seems the appropriate treatment, although its efficacy has not yet been proven by a controlled study. Neuroradiological findings, in particular those obtained by MRI, allow the identification of the dissecting pathology.

### First reported case of cutaneous vasculitis, enteritis, polyarteritis and myositis associated with *Bartonella henselae* infection

E. Avitabile<sup>1</sup>, S. Silvia<sup>1</sup>, R. Bonometti<sup>1</sup>, A. Gibbin<sup>1</sup>, S. Bianco<sup>1</sup>, R. Pedrazzoli<sup>2</sup>, P.P. Sainaghi<sup>2</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Department of Translational Medicine, Università del Piemonte Orientale UPO, Novara; <sup>2</sup>Division of Internal Medicine, "AOU Maggiore della Carità", Novara, Italy

A 33-year-old male presented with fever, pretibial purpura, diarrhea (positive to fecal occult blood testing), unintentional weight loss and monoarthritis of the left knee despite antibiotic therapy. A clinical diagnosis of Henoch-Schönlein vasculitis was made and treatment with a coxib started. Five days later, the patient returned complaining of a symmetric polyarthritis, as well as of persisting fever and diarrhea. Investigations showed myositis of the left calf muscles and multiple liver lesions (compatible with microabscesses). He had had a recent contact with dog fleas, and serology for *Bartonella henselae* - which can be transmitted by pet fleas - turned positive. Following treatment with azithromycin plus rifampicin, fever resolved, general conditions improved and he was discharged. However, at a follow-up visit one month later, he reported a recrudescence of his symptoms with polyarthritis, diarrhea, weight loss and skin purpura, accompanied by elevation of inflammatory markers, muscle necrosis indices and liver function tests. In contrast, the focal liver lesions were reduced in both size and number at a repeat CT scan. Suspecting a secondary vasculitis, we started low-dose prednisone, following which all his symptoms promptly resolved and his laboratory test results normalized. Among the increasingly recognized immune post-infectious complications associated with *Bartonella* infections, this is the first case report to date of an ANCA negative vasculitis characterized by enteritis, arthritis, myositis and skin purpura, with quick response to corticosteroid therapy.

### Adherence to direct oral anticoagulants treatment in elderly patients with nonvalvular atrial fibrillation estimated by the Morisky medication taking adherence scale

J. Baccheschi<sup>1</sup>, A. Sacchi<sup>2</sup>, G. Tambussi<sup>1</sup>, L. Magnani<sup>3</sup>, V. Perfetti<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Varzi, ASST Pavia, (2) Ambulatorio di Cardiologia, Poliambulatorio di Broni, ASST Pavia, (3) Medicina Interna, Ospedale di Voghera, ASST Pavia, Italy

**Study background and Purpose:** The arrival of DOAC has greatly simplified the management of oral anticoagulant therapy, and this is especially relevant for elderly. However, since there is no means to verify that patients regularly take the drug, there is an obligation to emphasize patient adherence. This work was aimed to evaluate, through a simple questionnaire, the clinical adherence of elderly patients in treatment with DOAC. Patients were followed with periodic evaluations (at least every 6 months after starting treatment with DOAC) and with nurse educational support during the visits.

**Materials and Methods:** The Morisky Medication Taking Adherence Scale (MMAS) was used as an immediate tool. The score consists of four questions that allow to estimate the patient's adherence in 3 groups: low (0-1 points), intermediate (2-3 points) and high adherence (4 points). We submitted the MMAS to patients (eventually with the help of their caregivers) on DOAC therapy for NVAF residing in rural and remote mountain areas of Oltrepò Pavese.

**Results:** we analyzed 105 elderly patients (mean age 82 years), 64 females and 41 males. The scores identified 21 patients with intermediate adherence and 84 in the high-adherence group. There were no low-adherence patients.

**Conclusions:** elderly patients (and their caregivers), if followed-up regularly (with a checkup visit with blood tests at least every six months and telephone contacts as needed) revealed a high rate of therapeutic adherence, at least as far as it can be estimated with a simple indirect tool such as the MMAS Score.

#### An observational study on direct oral anticoagulants therapy for nonvalvular atrial fibrillation in elderly patients living in a rural area

J. Baccheschi<sup>1</sup>, A. Sacchi<sup>2</sup>, G. Tambussi<sup>1</sup>, L. Magnani<sup>3</sup>, M.E. Candusso<sup>4</sup>, M. Ronchetti<sup>5</sup>, V. Perfetti<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Varzi, ASST Pavia; <sup>2</sup>Ambulatorio di Cardiologia, Poliambulatorio di Broni, ASST Pavia; <sup>3</sup>Medicina Interna, Ospedale di Voghera, ASST Pavia; <sup>4</sup>Laboratorio Analisi, Ospedale di Varzi, ASST Pavia; <sup>5</sup>Laboratorio Analisi, Ospedale di Voghera, ASST Pavia, Italy

**Study background and Purpose:** We studied the permanence in treatment with DOAC and the causes of shift to other anticoagulants or death in a population of elderly patients with NVAF living in a rural and remote area. These patients represent a population of elderly and frail patients (mean age 82 years; mean CHADS<sub>2</sub>VASC 4.1; mean HAS-BLED 2.4)

**Materials and Methods:** Data were collected on a dedicated database shared between two outpatient setting operating in that area. We used also the data from the AIFA Registry.

**Results:** we studied the permanence in treatment of 139 elderly outpatients regularly followed-up in two ambulatories. Observation started on 2013 (median observation time 18 months). Of these 139 pts, only a fraction stopped treatment with DOAC (30/139 pts, 22%). Specifically, 8 were lost at follow-up (27%), 13 died from unrelated causes (23% heart failure, 23% multiple geriatric complications, 8% pneumonia, 8% respiratory failure and 7% cancer, thus contributing up to 70% of death causes), and 8 switched to other anticoagulants treatment (6% of the total population, 27% of pts stopping treatment). Main reasons for switching was cancer (3/8 patients, 38%) and worsening of renal function (3/8 patients, 38%). No patient died for hemorrhagic complication or a new cardioembolic stroke.

**Conclusions:** Our data showed that the main cause of death in an elderly, frail population was unrelated to treatment, in line with the safe profile of these drugs.

#### Comprehensive geriatric assessment in very elderly hospitalized for heart failure: 12-month prospective evaluation of quality of life and mortality in association with drug therapy administered

P. Baliotti<sup>1</sup>, F. Giuliotti<sup>1</sup>, F. Spannella<sup>1</sup>, M. Ricci<sup>1</sup>, L. Landi<sup>1</sup>, B. Bernardi<sup>1</sup>, G. Rosettani<sup>1</sup>, R. Sarzani<sup>1</sup>

<sup>1</sup>Clinica di Medicina Interna e Geriatria IRCCS-INRCA, Università Politecnica delle Marche, Ancona, Italy

**Introduction and Aims:** The very elderly with heart failure (HF) is often undertreated, has poor prognosis and impaired quality of life (QoL). Aim: analyze associations between Comprehensive Geriatric Assessment (CGA), drug therapy, QoL and mortality in very elderly hospitalized for HF.

**Methods:** Prospective study of 24 very elderly hospitalized and followed for 1 year (visits at 1-3-6-12 months after discharge). Inclusion criteria: age ≥ 80 years and acute HF diagnosis (according to 2016 ESC Guidelines). QoL was evaluated with Minnesota Living with Heart Failure Questionnaire (MLHFQ).

**Results:** Mean age: 87 ± 4 years. Males: 68%. Admission NT-proBNP: 7497 pg/ml (25<sup>o</sup>-75<sup>o</sup> pcs 4790-8840). Admission CGA: MMSE 22.6 ± 1.1; GDS 12.2 ± 0.9; MNA 20.9 ± 0.9; BADL 5.22 ± 0.3; IADL 4.1 ± 0.5; POMA 9.7 ± 1.9; CIRS 4 ± 0.3; MLHFQ 43.8 ± 4.1. NT-proBNP was reduced at discharge and did not change during follow-up. All patients took a β-blocker and 91% took an ACE-I/ARB at 1 year (+50% and +20% respectively, compared to admission), without bradycardia (mean heart rate at 1 year: 69 bpm), hypotension or hypokalemia. A mild reduction in renal function was observed at 1 year. MMSE and BADL-IADL did not change at 1 year. QoL and MNA improved and risk of falling decreased. Mortality rate: 56%. No deaths occurred between 6 and 12 months. Mortality was associated with lower hemoglobin and worse cognitive status.

**Conclusions:** CGA is essential in very elderly with HF, to tailor therapy and improve QoL. HF drugs were effective and safe. A structured follow-up may limit the risk of adverse drug reactions and rehospitalization.

#### Un caso di polmonite da sepsi stafilococcica ad esordio anomalo

G. Balsamo<sup>1</sup>, G. Oliva<sup>1</sup>, A. Salzano<sup>2</sup>

<sup>1</sup>UOC Medicina Ospedale San Giovanni di Dio, Frattammagione (NA); <sup>2</sup>UOC Radiologia Ospedale San Giovanni di Dio, Frattammagione (NA), Italy

**Premesse e Scopo dello studio:** Descrizione di iter diagnostico singolare di un caso di sepsi da stafilococco, con quadro TC del torace patognomonico in paziente di media età e con anamnesi occulta di tossicodipendenza.

**Materiali e Metodi:** Il paziente afferriva in PS per grave malessere generale e recente trauma della strada. Dopo aver effettuato esami clinici, di laboratorio e radiologici veniva ricoverato in reparto di Medicina; in seconda giornata presentava ipertermia, dolore toracico, desaturazione, alcalosi respiratoria con ipossiemia all'EGA. Per la persistente ipertermia e antibiotico-resistenza, il paziente eseguiva TAC total body, Ecocardio e Emocultura.

**Risultati:** l'Rx Torace mostrava addensamenti multipli sui campi polmonari; la TC evidenziava aree di addensamento del tipo pneumonico con piccole cavitazioni aeree centrolesionali (pneumotoceli), tipiche di infezione da stafilococco. L'Ecocardio documentava ispessimento dei lembi valvolari della tricuspide e grossolane vegetazioni iperecogene da endocardite batterica. L'Emocultura confermava la diagnosi TC ed Eco, risultando positiva per stafilococco aureo. Infine i familiari riferivano la tossicodipendenza cronica del paziente, conciliante con il quadro clinico.

**Conclusioni:** Gli autori sottolineano il ruolo della TC come metodica specifica nell'iter clinico-diagnostico delle sepsi da stafilococco, specie nei casi con impegno polmonare; infatti l'evidenza TC di focolai broncopneumonici multipli e il caratteristico reperto di pneumotoceli, depone per un inquadramento e una diagnosi precisa delle stafilococchie.

#### Central nervous system involvement in Sézary syndrome

G. Bandini<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, P. Bernardi<sup>1</sup>, A. Mele<sup>1</sup>, C. Marchiani<sup>1</sup>, M. Gagliano<sup>1</sup>, C. Piazzai<sup>1</sup>, M. Finocchi<sup>1</sup>, N. Palagano<sup>1</sup>, E. Cioni<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

A 83-year-old man was admitted to our hospital for rapidly progressive alteration of level of consciousness associated with dysphagia and hypothermia. He had a history of mycosis fungoides treated with PUVA-therapy and radiotherapy. In the last months

disease progression occurred with eritrodermic evolution and dermatologists started corticosteroids treatment. On physical examination he was lethargic (GCS 10) and unable to do simple orders. His skin was diffusely reddened and peeling with palmoplantar keratoderma and ectropion. Cranial CT showed a millimetric cavernous hemangioma and EEG demonstrated generalized background slowing without paroxysmal abnormalities. On the fourth day of recovery his state of mind rapidly worsened until he became comatose (GCS 4). In the hypothesis of encephalitis treatment with antiviral and antibiotic drugs was started. Brain MRI with gadolinium didn't reveal findings consistent with encephalitis and patient didn't improve. Blood tests showed a progressive decrease in PLT count, leukocytosis and acute renal failure. Blood smear excluded Moschowitz syndrome and blood immunophenotyping showed Sézary cells. Immunophenotypic analysis of CSF revealed Sézary cells too. High dose corticosteroids therapy was then started and both patient's skin lesions and neurological signs improved. Mycosis fungoides is a T-cell lymphoma of the skin that in some cases progresses to involve visceral structures with the same malignant cells. CNS involvement during a leukemic conversion phase of mycosis fungoides is very rare but has to be considered.

### A case of ischemic strokes in a Fahr syndrome, hypoparathyroidism and diabetes. Three years of follow up

P. Banna<sup>1</sup>, A. Pagliazzo Bonanno<sup>1</sup>

<sup>1</sup> Divisione Medicina, Policlinico Vittorio Emanuele, Catania, Italy

**Introduction:** Fahr's syndrome is a rare disease characterized by calcifications of basal ganglia, thalamus, cortex, cerebellum. Neuropsychiatric symptoms and endocrine disorders are associated.

**Case report:** A 52 years old diabetic woman had a right hemiplegia, hypoesthesia, aphasia, right hemianopsia. B.P. was 110/80 mmHg. Neurol. scales: NIHSS13, mRS 5. CT and MRI showed ischemic areas in left temporal, parietal, occipital lobes and bilateral, symmetrical calcifications of basal ganglia, dentate nuclei and thalami. Carotid plaques, right-left shunts, atrial fibrillation have not been found. Campimetric exam and fundus showed right temporal hemianopsia and exudative retinopathy. Psychiatric examination revealed mild anxiety disorders. Ionized and total Ca were reduced, Phosphorus increased, intact PTHwas5-8pg/ml (range15-65). Mutation MTHFR (C677T-A1298C) has been found, homocysteine, other endocrine functions, autoimmunity were in the normal range. Patients was discharged with insulin, ASA, atorvastatin, folates, calcium and calcitriol. Subsequently partial seizures were treated with levetiracetam. Eight months after patient had a stroke in right insula. At discharge patient refused other antiplatelets drugs. During follow up PTH was low, other endocrine functions were in normal range, mRS was3, CT not showed new brain calcifications, a suspected mild cognitive impairment developed.

**Conclusions:** In this case an ischemic stroke allowed diagnosis of Fahr syndrome due to idiopathic hypoparathyroidism. Strokes and brain calcifications could explain seizures and a possible early cognitive impairment.

### A case of pandrug-resistant *K. pneumoniae* successfully treated with double-carbapenem therapy. Last resort or a window to future strategies?

S. Baroncelli<sup>1</sup>, L. Corbo<sup>1</sup>, C. Florenzi<sup>1</sup>, A. Crociani<sup>1</sup>, G. Zaccagnini<sup>1</sup>, E. Antonielli<sup>1</sup>, L. Sammiceli<sup>1</sup>, O. Para<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 54-year-old man was admitted to the our Hospital for a severe septic syndrome, 5 months after a right hemicolectomy for colon cancer. After clinical and laboratory improvement the clinical course was complicated by recurrence of fever and empirical antibiotic treatment was started. Urinary and blood cultures turned positive for pandrug-resistant (PDR) *K. pneumoniae* so double carbapenem regimen was considered as a "last resort" therapeutic strategy, and the patient was treated with ertapenem and meropenem. The patient improved rapidly and repeated urinary and blood cultures documented clearance of PDR *K. pneumoniae* infection. Increased antibiotic resistance among *K. pneumoniae* has culminated in the ever more frequent appearance of multi-resistant species, which represent an important

public health problem. The optimal treatment of PDR *K. pneumoniae* infections, sustained by organism resistant to all agents in all antimicrobial categories, is unknown. One approach is the use of a double-carbapenem regimen. The rationale is that ertapenem acts like a "kamikaze" antibiotic that thanks to its great affinity for carbapenemases reduces significantly these enzymes in proximity of the organism. This allows other carbapenems to act more efficaciously in their bactericidal activity. Dual carbapenem combination treatment is an option for infections caused by MDR *K. pneumoniae*, especially when colistin treatment is inappropriate due to resistance or unacceptable toxicity, and for those with PDR species where the double carbapenem regimen is one of the remaining chances.

### Once upon a time an all red man...

S. Baroncelli<sup>1</sup>, E. Blasi<sup>1</sup>, A. Crociani<sup>1</sup>, G. Cioni<sup>1</sup>, G. De Marzi<sup>1</sup>, C. Florenzi<sup>1</sup>, M.S. Rutili<sup>1</sup>, E. Antonielli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 65-year-old man with moderate heart failure and chronic thromboembolic pulmonary hypertension was admitted to our Hospital for congestive heart failure. On examination he presented with fairly extensive desquamative erythrodermia with complete body coverage. We supposed a dermatological diagnosis, such as psoriasis, but patient showed no improvement after topical corticosteroid preparations administered for two weeks. At the third week of hospitalization a skin biopsy was made and cutaneous T cell lymphoma was diagnosed. Cutaneous T cell lymphoma (CTCL) is a non-Hodgkin lymphoma caused by malignant T cell which initially migrate to the skin, causing various lesions, before metastasizing to other parts of the body. Sézary disease, also known as mycosis fungoides, is the most common form of cutaneous T cell lymphoma and it is more common in males with a ratio of 2:1, with mean age of diagnosis between 55 and 60 years of age. Diagnosis is often difficult because the early phases of disease resemble eczema or psoriasis. The diagnosis is made through a combination of clinical picture and examination. Generally blood test reveals no change in the levels of lymphocytes so diagnosis is confirmed by skin biopsy. The choice of therapy remain problematic and pharmacological treatments are often used in combination with phototherapy and chemotherapy, because no single treatment has revealed clear benefits in comparison to others. The prognosis is poor with approximately 11% of survival 5 years after the diagnosis.

### Associazione tra acido urico e stiffness arteriosa in una popolazione sana

F. Barone<sup>1</sup>, A. Tafa<sup>2</sup>, C. Pondrelli<sup>2</sup>, R. Nuti<sup>2</sup>, S. Gonnelli<sup>2</sup>, S. Digregorio<sup>1</sup>, F. Corradi<sup>1</sup>, A. Moretini<sup>1</sup>

<sup>1</sup>AOU Careggi, Firenze; <sup>2</sup>Università degli Studi di Siena, Italy

**Scopo:** Scopo di questa tesi è stato valutare la correlazione tra i livelli circolanti di acido urico e stiffness arteriosa in una popolazione apparentemente sana. Il campione comprendeva 190 soggetti (88 M e 102 F) con un'età compresa tra i 25-60 anni. Esclusi: soggetti in terapia ipouricemizzante, diabetici e ipertesi. Sono stati sottoposti ad un esame ultrasonografico dei vasi epiaortici con ecografo Esaote MyLab 60, sonda lineare B-mode da 7,5 Mhz con la tecnologia RFQMT e RFQAS che, sfruttando il segnale Radio Frequency Data Processing, determina precocemente l'iperplasia intimale e il grado di rigidità dei vasi. La RFQAS, attraverso un algoritmo dedicato, associa gli indici di distensione delle pareti dei vasi alla pressione sanguigna locale, determinando così i parametri di rigidità vascolare: la Pulse Wave Velocity,  $\alpha$  e  $\beta$ , grafico della pressione locale e Augmentation index. I valori di uricemia e la PWV carotidea in entrambi i sessi sono risultati direttamente correlati in modo statisticamente significativo. Tale significatività è risultata più elevata nelle donne rispetto agli uomini anche dopo la correzione per i fattori confondenti. Pertanto, la PWV è un predittore indipendente della malattia cardiovascolare e poiché la rigidità arteriosa è influenzata strettamente dalla disfunzione endoteliale, possiamo supporre che i livelli di acido urico possano influenzare la rigidità arteriosa. Pertanto, si evince l'utilità clinica della determinazione dell'uricemia e della PWV nell'inquadramento del rischio cardiovascolare.



### A rare case of Lemierre's syndrome began as septic shock

C. Bassino<sup>1</sup>, D. Tettamanzi<sup>1</sup>, M. Casartelli<sup>1</sup>, G. Scollo<sup>1</sup>, C. Prete<sup>1</sup>, E. Limido<sup>1</sup>

<sup>1</sup>Divisione Medicina Interna ASST-Lariana, Presidio di Cantù (CO), Italy

A 27 old woman was admitted to our hospital for fever with septic shock, respiratory failure, rigor nuchalis. Endotracheal intubation and mechanical ventilation were performed for 6 days. Torax CT showed pulmonary abscesses and blood cultures were positive for *Fusobacterium necrophorum*. Initially treated with Piperacillina/tazobactam and levofloxacin soon after replaced for persistent fever with metronidazole, vancomycin and meropenem with consequent improvement. Neck CT showed parietal thrombus of the internal jugular vein. Jugular vein suppurative thrombophlebitis is also known as Lemierre's syndrome. The condition is frequently preceded by pharyngitis, usually in association with tonsil or peritonsillar involvement. Lemierre's syndrome is characterized by infectious involvement of the carotid sheath vessels with bacteremia. It should be suspected in patients with antecedent pharyngitis, septic pulmonary emboli, persistent fever despite antimicrobial therapy. Lemierre's syndrome frequently affects previously healthy young adults 6% of which were ICU admitted. Treatment includes removing the focus of infection, eg, intravenous catheter, prompt administration of intravenous antibiotics, consideration regarding surgical intervention, anticoagulation. Empiric therapy should include a beta-lactamase resistant beta-lactam antibiotic, since treatment failure with penicillin and *F. necrophorum* beta-lactamase production has been reported. Acceptable regimens include monotherapy with a carbapenem.

### An uncommon case of cytomegalovirus colitis

C. Bazzini<sup>1</sup>, E. Scarpignato<sup>1</sup>, V. Verdiani<sup>1</sup>

<sup>1</sup>Internal Medicine, Grosseto Hospital, Italy

**Introduction:** We describe the case of an old woman with an uncommon case of Cytomegalovirus (CMV) colitis with spontaneous resolution.

**Case:** A 86-year old woman was admitted in Internal Medicine Unit for a 1-week history of weakness and diarrhea. Her medical history included hypertension, permanent atrial fibrillation, hyperthyroidism, chronic kidney disease, osteoporosis, polymyalgia rheumatica treated with prolonged steroid therapy. Laboratory tests revealed normocytic anemia (Hb 9.3 g/dL). Stool cultures were negative while occult blood was reported. Chest and abdominal X-ray were unremarkable. Colonoscopy revealed large erosions and ulcerations of colonic mucosa at level of splenic flexure and biopsies were taken. The patient was treated with restriction of oral intake, intravenous fluid and nutrition, empirical antibiotic therapy and low molecular weight heparin. By the time her symptoms were substantially improved and the patient was discharged in 12<sup>th</sup> day. Histology found an active inflammation and enlarged cells with intra-nuclear inclusion bodies, consistent with CMV-infected cells. Further confirmation was given by increased anti-CMV IgM antibodies. At the ambulatory control, 2-week from hospital discharge, the patient felt good with complete resolution of symptoms.

**Conclusions:** CMV is an uncommon cause of colitis in old patients. Although antiviral therapy is indicated in immunocompromised patients, we describe a case of spontaneous resolution in a 86-year old woman with multiple comorbidity and history of prolonged steroid therapy.

### An unusual case of cardioembolic stroke

C. Bazzini<sup>1</sup>, I. Chiti<sup>1</sup>, A. Alessandri<sup>1</sup>, V. Denaro<sup>1</sup>, G. Panigada<sup>1</sup>

<sup>1</sup>U.O. Medicina Generale, Ospedale SS. Cosma e Damiano, Pescia (PT), Italy

A 36-year-old man was admitted in our Internal Medicine Unit for headache, vomiting and pain in the left face and right arm. His medical history included smoke, hiatal hernia and testicular cancer treated with chemotherapy and radiotherapy 15 years ago. At physical examination nystagmus rotatory, right ataxic hemiparesis and the absence of radial pulse were detected; the blood pressure was normal, checked in both arms. The CT angiography of thoracic aorta and brain excluded an aortic dissection and detected a thrombosis in the brachiocephalic trunk with stenosis of the right

subclavian artery and occlusion of the right vertebral artery. Intravenous thrombolysis was not performed for spontaneous regression of neurological symptoms. The artery Doppler ultrasonography showed also the obstruction of right radial artery. Through a brain MRI ischemic lesions were detected in the parietal and occipital left lobes and in left cerebellum. The report of the transthoracic and transesophageal echocardiography was normal. The laboratory test showed the presence of lupus anticoagulant and of IgM anti-beta2glycoprotein1. He was treated with anticoagulant therapy with warfarin (INR 2-3) after an initial treatment with LMWH. This case shows that the presence of clinical signs of ischemia in the right arm and in the brain can be linked to an artery thrombosis of the brachiocephalic trunk. The antiphospholipid syndrome is an acquired autoimmune thrombophilic disorder that is characterized by venous and arterial thrombosis and obstetric morbidity and is a rare cause of stroke in young people.

### An unusual cause of stroke

C. Bazzini<sup>1</sup>, I. Chiti<sup>1</sup>, A. Alessandri<sup>1</sup>, V. Denaro<sup>1</sup>, G. Panigada<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale SS. Cosma e Damiano, Pescia (PT), Italy

A 46-year-old man was admitted in our Internal Medicine Unit for headache, vomiting and pain in the left face and right arm. His medical history included smoke, hiatal hernia and testicular cancer treated with chemotherapy and radiotherapy 15 years ago. At physical examination nystagmus rotatory, right ataxic hemiparesis and the absence of radial pulse were detected; the blood pressure was normal, checked in both arms. The CT angiography of thoracic aorta and brain excluded an aortic dissection and detected a thrombosis in the brachiocephalic trunk with stenosis of the right subclavian artery and occlusion of the right vertebral artery. Intravenous thrombolysis was not performed for spontaneous regression of neurological symptoms. The artery Doppler ultrasonography showed also the obstruction of right radial artery. Through a brain MRI ischemic lesions were detected in the parietal and occipital left lobes and in left cerebellum. The report of the transthoracic and transesophageal echocardiography was normal. The laboratory test showed the presence of lupus anticoagulant and of IgM anti-beta2glycoprotein1. He was treated with anticoagulant therapy with warfarin (INR 2-3) after an initial treatment with LMWH. This case shows that the presence of clinical signs of ischemia in the right arm and in the brain can be linked to an artery thrombosis of the brachiocephalic trunk. The antiphospholipid syndrome is an acquired autoimmune thrombophilic disorder that is characterized by venous and arterial thrombosis and obstetric morbidity and is a rare cause of stroke in young people.

### The cure subacute: un ponte tra ospedale e territorio. Esperienza di un ospedale montano

W. Bazzini<sup>1</sup>, R. Puce<sup>1</sup>, P. Mazzocchi<sup>1</sup>, V. Gazzaniga<sup>1</sup>, D. Daffra<sup>1</sup>, J. Baccheschi<sup>1</sup>, E. Breggi<sup>1</sup>, L. Magnani<sup>2</sup>, L. Zambianchi<sup>3</sup>, V. Perfetti<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Varzi, ASST Pavia; <sup>2</sup>Medicina Interna, Ospedale di Voghera, ASST Pavia; <sup>3</sup>Direzione Sanitaria, Presidio Ospedaliero Oltrepo, ASST Pavia, Italy

**Premessa:** La finalità delle Cure Subacute è la stabilizzazione clinica, l'ottimizzazione terapeutica e la ricerca del recupero funzionale di pz che abbiano superato una fase di acuzie. La possibilità da parte del MMG di proporre pz che necessitano di cure a non elevata intensità configura una struttura ponte tra ospedale e territorio, percorribile in entrambe le direzioni, in grado di soddisfare le esigenze di una popolazione caratterizzata da età avanzata e polipatologia cronica. Riportiamo la esperienza maturata nel 2016 dalle Cure Subacute della Medicina dell'Ospedale di Varzi, un ospedale montano in territorio isolato e con popolazione molto anziana.

**Materiali e Metodi:** 15 letti di degenza, casistica 2016. L'idoneità al ricovero è valutata in base a scheda di valutazione degli indici di intensità assistenziale inviata dal proponente. Il rimborso economico è su base forfettaria secondo la intensità dell'indice. Risultati: Sono stati ospitati 179 pz nel 2016 (18% proposti dai MMG territoriali, 75% trasferiti da altri Ospedali dell'ASST-Pavia, principalmente dalle Medicine (65%), Chirurgie ed Ortopedie, e

7% da altri ospedali). Il reparto, incrementato di 6 letti nel 2016, ha coerentemente incrementato l'attività di oltre il 60%, dimostrando ottima richiesta. La maggiore durata della degenza rispetto ai reparti per acuti ha inoltre permesso di identificare per tempo soluzioni alle dimissioni critiche nella totalità dei casi.

**Conclusioni:** Le Cure Subacute sono una valida opportunità volta ad affrontare la necessità di assistenza intermedia tra ospedale e territorio.

### **Clostridium difficile infection: our experience**

A. Belfiore<sup>1</sup>, V.O. Palmieri<sup>1</sup>, L.D. Grimaldi<sup>1</sup>, F. Passerini<sup>1</sup>, P. Portincasa<sup>1</sup>

<sup>1</sup>Clinica Medica "A. Murri" Policlinico, Bari, Italy

**Background:** Clostridium difficile infection (CDI) has emerged as an enteric problem ranging from mild diarrhea to fulminant colitis. The increasing incidence and severity of CDI is related to large antibiotic use, aging, severe comorbidities, emergence of a hypervirulent C. difficile strains, rybotype 027 and tcdtCD 117 deletion. We have re-evaluated CDI cases diagnosed in our department in 2016 to understand the risk factors and the outcome of this serious medical condition.

**Methods:** We identified 4 CDI over 856 ward admissions in one year. CDI was defined by the presence of diarrhea and positive assay for C. difficile toxin A/ B plus positive PCR detecting toxigenic strain. All patients were older than 65 and had antibiotic exposure within the previous 4-12 weeks (cephalosporins or fluoroquinolones for pneumonia or urinary tract infection). They had comorbidities: patient 1): multiple sclerosis; patient 2): reumatoid arthritis; patient 3): diabetes mellitus and chronic lung disease; patient 4): heart failure. We detected ribotype 027 in patient 1 and tcdtCD 117 deletion in the others. Two patients had relapse and one patient died. All patients were treated with vancomycin and metronidazole. Due to relapse, fidaxomicin was used in two cases, one of which was successful. All patients received probiotics.

**Conclusions:** Our limited experience shows that: 1) CDI is an emerging problem in Internal Medicine; 2) careful antibiotic stewardship could prevent the occurrence.

### **Ligurian anemia register: results from a 1.5-year prospective observational study in seven Internal Medicine hospital centers**

A. Bellodi<sup>1</sup>, M. Scudeletti<sup>2</sup>, M. Cavalleri<sup>2</sup>, F. Orlandini<sup>3</sup>, T. Calzamiola<sup>4</sup>, R. Tassara<sup>5</sup>, R. Goretti<sup>6</sup>, G. Berisso<sup>7</sup>, E. Molinari<sup>1</sup>, L. Del Corso<sup>1</sup>, V. Sicbaldi<sup>1</sup>, S. Favorini<sup>1</sup>, A. Da Col<sup>1</sup>, N. Bardi<sup>1</sup>, R. Bruni<sup>1</sup>, R. Ghio<sup>1</sup>, F. Puppo<sup>1</sup>, E. Arboscio<sup>1</sup>

<sup>1</sup>Clinic of Internal Medicine 3, IRCCS University Hospital San Martino-IST National Institute for Cancer Research, Genoa; <sup>2</sup>Internal Medicine, Ospedale Civile Sestri Levante (GE); <sup>3</sup>Internal Medicine, Ospedale S. Andrea, La Spezia; <sup>4</sup>Internal Medicine, Ospedale S. Remo (IM); <sup>5</sup>Internal Medicine, Ospedale S. Paolo, Savona; <sup>6</sup>Internal Medicine, Ospedale S. Corona Pietra Ligure (SV); <sup>7</sup>Internal Medicine, Ospedale S. Bartolomeo, Sarzana (SP), Italy

**Introduction:** A rapid management, diagnosis and treatment of anemic patients (pts), giving a direct connection among general practitioners and hospital services, improve coordination and continuity of care, reduces sanitary costs in terms of hospitalization, drugs rationalization and quality of life for pts. In this study, we evaluated the incidence and the ambulatory management of anemia over 1.5-years period in seven Italian medical hospital centers.

**Methods:** We carried out a prospective study in Internal Medicine hospital centers of Liguria from 1 June 2015 to 31 January 2017. All pts with anemia were enrolled in the Liguria Anemia Register database. The primary endpoint was to evaluate the incidence of anemia. Secondary endpoints were to investigate the correction of anemia and the reduction of hospitalization. Severity of anemia was defined with WHO criteria.

**Results:** We identified 395 pts with anemia, 295 were evaluable at this time (Male 95, Female 200). Pts with age over 60 were 168 (56.95%). Most represented causes were iron deficiency (56.49%), renal failure (13.99%) and chronic disorder (7.89%). Anemia severity assessment showed: mild 40.87%, moderate 43.24% and severe 15.87%. Only 7.43% of pts required hospitalization.

**Conclusions:** These preliminary data shows that anemia is a frequent clinical problem. Direct connection between general practitioners and hospital services improves the coordination of care, optimizing pts management even with moderate to severe anemia in outpatients setting.

### **Un dolore addominale con una difficile diagnosi**

M. Bernardini<sup>1</sup>, S. Di Gregorio<sup>1</sup>, F. Corradi<sup>1</sup>, A. Morettini<sup>1</sup>

<sup>1</sup>Medicina Interna ad Orientamento ad Alta Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

Uomo di 43 anni, senza fattori di rischio cv, in storia solo una steatosi epatica, entra per dolore addominale crampiforme in FID con un unico episodio di vomito. Alla TC dell'addome con mdc infarti renali bilaterali con segni di dissecazione del tronco celiaco. Viene quindi eseguita angioTC dell'aorta e delle arterie renali che conferma il reperto a livello del tronco celiaco e rivela dissecazione di un ramo segmentario dell'arteria renale sinistra con falso lume trombizzato e vero lume di piccolo calibro, oltre a ostruzione di un ramo segmentario dell'arteria renale destra. È stata eseguita una PET che ha escluso una vasculite, anche gli autoanticorpi sono risultati negativi. Il paziente è stato trattato con terapia eparinica a dosaggio anticoagulante e terapia antiipertensiva e dimesso con diagnosi di probabile SRAD. La dissecazione spontanea dell'arteria renale (SRAD) è un raro fenomeno e spesso si presenta come una sfida diagnostica e terapeutica. Può essere associata con patologie vascolari sottostanti ma rimane idiopatica nella maggior parte dei casi. La maggior incidenza si ha dalla quarta alla sesta decade di vita con una maggior incidenza nel sesso maschile. Anche se tecniche di immagine avanzate come la TC sono utili nel fare la prima diagnosi, l'angiografia rimane il gold standard e inoltre permette interventi terapeutici anche se è preferibile una terapia medica con anticoagulanti e farmaci per il controllo della pressione arteriosa. Un follow up a lungo termine è richiesto per controllare l'ipertensione e prevenire la compromissione renale.

### **Gestione integrata delle cure palliative nello scompenso cardiaco**

V. Bernardis<sup>1</sup>, A. Provenzano<sup>1</sup>, A. Caggegi<sup>2</sup>, M.A. Conte<sup>3</sup>, D. Pavan<sup>4</sup>, M. Tonizzo<sup>1</sup>

<sup>1</sup>Medicina Interna, San Vito al Tagliamento (PN); <sup>2</sup>Rete Cure Palliative ed Hospice, San Vito al Tagliamento (PN); <sup>3</sup>Rete Cure Palliative ed Hospice, San Vito al Tagliamento (PN); <sup>4</sup>Cardiologia, San Vito al Tagliamento (PN), Italy

**Premessa:** Lo scompenso cardiaco è una sindrome cronica gravata da molti ricoveri soprattutto in pazienti anziani e in fase end stage. Da alcuni anni stiamo sperimentando un modello di gestione integrata per la razionalizzazione dell'impiego delle risorse e la prevenzione dei ricoveri ripetuti, nell'ottica di efficacia clinica ed efficienza gestionale.

**Metodi:** Il PDTA ha portato ad una netta riduzione di ricoveri ripetuti, stabili attorno al 6%. Nel 2014 è stato implementato con estensione alle cure palliative per pazienti end stage, al fine di garantire il controllo dei sintomi ed un sostegno alla qualità di vita di pazienti e familiari. La fase terminale vede: dispnea (83%), astenia (82%), insonnia (48%), sete (45%), tosse (44%), dolore (41%), ansia (41%), anoressia (21%); compromettono qualità di vita del paziente e danno percezione di morte imminente, ansia nei familiari e richiesta di frequenti prestazioni ospedaliere.

**Risultati:** Nel 2015 i ricoveri per SC sono stati 158, 8.2% in classe IV NYHA. Affidati alle cure palliative il 2.5%; tutti con copatologia e terapia ottimizzata; nessun ricovero successivo. Nel 2016: 139 ricoveri, 8.6% in classe IV NYHA; affidati alle cure palliative il 5%. Tutti con copatologia, un caso di cardiopatia complessa congenita. Nessun ricovero successivo in medicina.

**Conclusioni:** Le prime esperienze dimostrano l'efficacia di questo modello di presa in carico di pazienti end stage, che consente l'ottimizzazione dell'utilizzo delle risorse ospedaliere, garantendo nel contempo una risposta efficace alle necessità del paziente e dei familiari.

### Pulse wave velocity: studio di una coorte di pazienti di un centro ipertesi

S.A. Berra<sup>1</sup>, M.C. Nava<sup>1</sup>, P. Grechi<sup>1</sup>

<sup>1</sup>ASST Rhodense, U.O. Medicina 1<sup>a</sup>, Garbagnate Milanese (MI), Italy

**Introduzione:** La pulse wave velocity (PWV) è un indicatore di arteriale stiffness (rigidità arteriosa) espressione di iniziale danno vascolare. La convenzionale stratificazione ha limiti nell'identificare quei soggetti con eventi pur in assenza di rischio. I principali determinanti della stiffness sono l'età, l'I.A., il D.M., la S.M. e l'obesità.

**Materiali e Metodi:** La PWV esprime il tempo che l'onda sfigmica impiega a percorrere una distanza, registrata con metodiche diverse. La PWV è di 4-8 m/s, nell'aorta e aumenta progressivamente con la riduzione del calibro della parete vasale. Noi abbiamo utilizzato TensioMed T/C Arteriograph con metodo oscillometrico. Survey: Abbiamo analizzato 10 sg. stratificati per la 5<sup>a</sup> dec. età (m. 52.6 anni) - 2 gruppi senza (n. 5) e con (n. 5) fattori di rischio c.v. (M/F): 1<sup>a</sup> g. soggetti normopeso, normotesi, senza f.d.r. non in terapia, 2<sup>a</sup> g. 2 sg. con BMI (>25-29.9<), 1 ipert. non contr. (ARBs); 1 con BMI 30.5, 1 ipert. (ACE+diur.); 1 diab. (Hb glic. 6%). I valori medi di PWV di entrambi i gruppi hanno rilevato: nel 1<sup>o</sup> gruppo (senza f.d.r.) un valore di 3.7 m/s; nel 2<sup>o</sup> gruppo (uno o più f.d.r.) un valore di 7.2 m/s. L'esiguità del campione non ha permesso analisi statistiche ma conferma l'utilità della PWV in un Centro Ipertensione.

**Conclusioni:** Il valore predittivo dell'esame (PWV) è parte di una corretta valutazione di un pz. iperteso soprattutto se "naive", viene proposto anche per le broncopatie di diverso grado, la fibrosi polmonare idiopatica nella valutazione danno sub clinico ed per i sg. con ipert. mascherata, i non dipper, ed i pz. resistenti.

### Pazienti fragili e continuità assistenziale: dati di una survey

S.A. Berra<sup>1</sup>, A. Fiorenza<sup>1</sup>

<sup>1</sup>ASST Rhodense, U.O. Medicina 1<sup>a</sup>, Garbagnate Milanese (MI), Italy

**Premesse e Scopo dello studio:** Le degenze internistiche protratte rappresentano un problema complesso in una U.O. di Medicina Interna per Acuti in relazione alla necessità di posto letto a fronte di una epidemiologia socio-sanitaria caratterizzata da una popolazione anziana cronicamente critica.

**Materiali e Metodi:** È stata prodotta una survey, eseguita in 3 rilev. campione, in mesi diversi, in una U.O. di Med. Int. con 64 p/I, sono stati proposti 12 quesiti tra cui:

**Tabella 1.**

Survey	1 <sup>a</sup>	2 <sup>a</sup>	3 <sup>a</sup>	tot. 192 pz.
Pr. soc./ass.	13%	20%	23%	m. 18.6%
Pr. famigl.	4%	5%	6%	m. 5%
Dimiss. prot.	0	3%	1%	m. 1.3%
Cont. assist.	6%	3%	28%	m. 12.3%
Ass. sociale	3%	3%	0	m. 2%
Attesa RSA	2%	0	17%	m. 6.3%

**Risultati:** I dati esposti in Tabella 1 evidenziano che oltre il 18% del campione era in attesa di attivazione di un programma assistenziale domiciliare e che il 12.3% non era dimissibile per indisponibilità all'accoglienza.

**Conclusioni:** La survey documenta come sia presente questo problema e che risposte organizzative sono in gran parte a carico del medico che ha in cura il paziente. Fattori epidemiologici e sociali concorrono a definire un paziente sempre più fragile. Occorrono quindi più figure dedicate (discharge manager, centro di coord. per servizi infermieristici, sociali ed ausiliari) in grado di proporre soluzioni che possano rappresentare reale integrazione e ridurre giornate "improprie" di ricovero le quali rappresentano una quota di rilievo in una U.O. di Medicina Interna per Acuti.

### Budd Chiari syndrome secondary to hepatocellular carcinoma: case report

M.C. Bertieri<sup>1</sup>, B. Dal Pino<sup>1</sup>, G. Di Lallo<sup>1</sup>, F. Dini<sup>1</sup>, S. Gavioli<sup>1</sup>, F.L. Gheri<sup>1</sup>, C. Gigli<sup>1</sup>, V. Iacopetti<sup>1</sup>, L. Lorenzetti<sup>1</sup>, Q. Lucchesi<sup>1</sup>, C. Sterpi<sup>1</sup>, S. Vangucci<sup>1</sup>, G. Rinaldi<sup>1</sup>

<sup>1</sup>S.C. Medicina Interna, P.O. Valle Del Serchio (LU), Italy

**Introduction and Aims:** Budd Chiari syndrome (BCS) is a very rare condition (1/1 000 000 adults) due to occlusion of hepatic veins clinically evident for ascites and hepatomegaly: clinical patterns vary from fulminant to asymptomatic ones. Primary BCS is due to clotting disorders (m. Vaquez, PNH, Protein C/S deficiency, FV<sup>Leiden</sup> mutation, pregnancy or contraception; secondary BCS is due to infection or neoplasm.

**Materials and Methods:** The case come to observation is a 75 y.o. man affected by HBV chronic hepatitis as a consequence of infected blood transfusion, a long time treated with antivirals. The p. was admitted for huge oedema in lower limbs and swelling of the abdomen not responder to diuretics. The p. was carefully examined for liver, kidney, heart function; abdomen and heart US scan, abdominal and peripheral vessels Echocolor Doppler were performed.

**Results:** Blood specimens highlighted  $\alpha$ FP >2.000, US scan showed 5cm HCC in VI<sup>h</sup> hepatic segment and right hepatic vein thrombosis extended to IVC and right atrium largely involved by neoplastic thrombus. Being BCS secondary to HCC not eligible neither to surgery or OLT nor to interventional procedures, the therapy of choice was LMWH quickly switched to warfarin, sodium restriction and diuretics.

**Conclusions:** The old age and poor prognosis excluded any aggressive and possibly successful approach. Life expectation is short, but the quality of life is, up till now, acceptable, oedema and ascites being controlled, pulmonary embolism and variceal bleeding so far avoided. Caval/caval anastomotic collaterals developed on abdomen and chest wall.

### Paralisi periodica: una grave complicanza dell'ipertiroidismo non esclusiva dei popoli orientali

G. Bertola<sup>1</sup>, S. Giambona<sup>1</sup>, R. Bianchi<sup>1</sup>, S. Dassi<sup>1</sup>, S.A. Berra<sup>1</sup>

<sup>1</sup>ASST Rhodense, U.O. Medicina 1<sup>a</sup>, Garbagnate Milanese (MI), Italy

**Premesse:** La paralisi periodica ipokaliemica (PPI) è una condizione caratterizzata da paralisi muscolare episodica associata ad ipokaliemia, sostenuta da uno shift del K<sup>+</sup> dal comparto extra a quello intracellulare. La PPI comprende forme familiari (PPF) e forme sporadiche, di cui la più nota è la paralisi periodica tireotossica (PPT) che colpisce prevalentemente maschi di razza asiatica affetti da ipertiroidismo (IP). Nella PPT gli attacchi ipostenici sono responsivi al KCl ev ed ai  $\beta$ bloccanti non selettivi, ma tendono alla recidiva fino al definitivo ripristino dell'eutiroidismo.

**Caso clinico:** Uomo di 48 anni, italiano, senza familiarità per PPI, iperteso in terapia con losartan. Numerosi accessi notturni in PS per episodi acuti di paralisi flaccida (arti inferiori e tronco) associati ad ipokaliemia, con risparmio dei nervi cranici e della sensibilità. Rapida risposta all'infusione di KCl ev, ma ripetute recidive nonostante la somministrazione continua di KCl per os. Solo molti mesi più tardi fu riconosciuto un IP da malattia di Graves, per il resto paucisintomatico. Dopo introduzione di propranololo e di metimazolo, risoluzione definitiva degli attacchi e stabile normalizzazione della potassiemia, anche dopo sospensione del KCl.

**Conclusioni:** La PPT può comportare complicanze potenzialmente letali (aritmie, insufficienza respiratoria) prevenibili se correttamente riconosciuta e trattata. Sebbene estremamente rara negli europei, essa va presa in considerazione nella diagnosi differenziale di molti disturbi neurologici acuti.

### Antifungal stewardship program in a tertiary university hospital in Italy: a focus on candidemia

G. Bertolino<sup>1</sup>, C. Tascini<sup>2</sup>, E. Sozio<sup>3</sup>, C. Carmignani<sup>4</sup>, E. Rosselli Del Turco<sup>4</sup>, E. Iacopi<sup>5</sup>, A. Crocetto<sup>1</sup>, L. Mazzuca<sup>1</sup>, E. Tagliaferri<sup>6</sup>, F. Sbrana<sup>7</sup>, A. Ripoli<sup>7</sup>, S. Barnini<sup>8</sup>, L. Dal Canto<sup>1</sup>, F. Menichetti<sup>6</sup>

<sup>1</sup>Pharmaceutical Department, Azienda Ospedaliera Universitaria Pisana, Santa Chiara, Pisa; <sup>2</sup>First Division of Infectious Diseases, Cotugno Hospital, Azienda Ospedaliera dei Colli, Napoli; <sup>3</sup>Emergency Medicine Unit, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>4</sup>Infectious Diseases Clinic, Sant'Orsola Malpighi University Hospital, Bologna; <sup>5</sup>Diabetic Foot Section, Department of Medicine, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>6</sup>Infectious Diseases Clinic, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>7</sup>Fondazione Toscana Gabriele

Monasterio, Pisa; <sup>8</sup>Microbiologia Universitaria, Azienda Ospedaliero Universitaria Pisana, Pisa, Italy

**Background:** The incidence of candidemia is growing and candida bloodstream infections are a major cause of mortality and morbidity in hospitalized patients. In this paper we assess the results of an Antifungal Stewardship Program, as a part of Antimicrobial Stewardship Program implemented in Pisa hospital, in the year 2012-2014.

**Material and Methods:** All consecutive patients who developed candidemia in Pisa University Hospital, during the period January 2012-December 2014, were enrolled in the study. We analyzed the underlying patient characteristics, survival and risk factors, detailed information about clinical illness, infectious disease consultation (IDC), outcome during candidemia episodes. The data about the antifungals prescriptions were collected. All information was recorded in an electronic database.

**Results:** We collect 341 episodes of candidemia. Regarding 30-day mortality, at the univariate regression analysis, the significant predictors of death are: age >65 years (OR 2.253, p 0.002), late onset of candidemia (OR 0.539, p 0.009), presence of *C. albicans* (OR 1.702, p 0.023), and IDC (OR 0.500, p 0.010). At the multivariate regression analysis, age >65 years (OR 2.152, p 0.005) and IDC (OR 0.520, p 0.021) emerged as independent predictors of death.

**Conclusions:** Antifungal stewardship seems to be a protective factor for mortality due to candidemia. In fact, at the univariate logistic regression model regarding 30-day mortality and at the multivariate analysis IDC was the factor associated to increased survival, while age>65 years is associated with increased death.

#### Effects of persistent atrial fibrillation on serum Galectin-3 levels in patients with heart failure with preserved ejection fraction. Preliminary results of an observational study

M. Bertoni<sup>1</sup>, M. Foretic<sup>1</sup>, A.M. Traini<sup>2</sup>, A. Celli<sup>3</sup>, R. Martini<sup>1</sup>, A. Foschini<sup>1</sup>, M.E. Di Natale<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna 2, Nuovo Ospedale di Prato; <sup>2</sup>U.O.C. Cardiologia, Nuovo Ospedale di Prato, <sup>3</sup>U.O. Analisi Chimico-Cliniche, Nuovo Ospedale di Prato, Italy

**Background:** In persistent atrial fibrillation (PAF), fibrosis represents the hallmark of arrhythmogenic structural remodeling. Galectin-3 (Gal-3) is a novel profibrotic biomarker whose levels are elevated in patients (pt) with PAF and preserved ejection fraction (pEF). Aim of this study was to investigate if serum Gal-3 levels were elevated in pt with PAF and heart failure with pEF (HFpEF), a syndrome whose pathogenesis involves myocardial stiffness due to cardiac fibrosis rather than volume overload. We report the preliminary results of the first 10 pt enrolled.

**Methods:** PAF diagnosis was made according to 2012 Guidelines ESC/EP. HFpEF diagnosis was made according to 2016 ESC guidelines. Patients (mean age 82.6±6.7, 3 men) underwent measurement of serum Gal-3 and NT-proBNP levels by enzyme-linked fluorescent assay. Such biomarkers were also measured in 26 age- and gender-matched pt with sinus rhythm (SR) and HFpEF.

**Results:** Both Gal-3 and NT-proBNP levels were significantly increased in pt with PAF and HFpEF compared to pt with SR and HFpEF (22,49±4,53 ng/mL vs 17,05±6,66 ng/mL, p<0.03; 2535,3 ±1185,21 ng/mL vs 1173,3 ±1094,77 ng/mL, p<0.003). In linear regression analysis, only in pt with SR and HFpEF Gal-3 levels were significantly correlated with NT-proBNP levels (r=0.46, p<0.02).

**Conclusions:** Compared to pt with SR and HFpEF, Gal-3 and NT-proBNP levels were significantly elevated in pt with PAF and HFpEF. Our preliminary results suggest that Gal-3 might predict the beginning of the atrial remodeling process which contributes to the development of PAF in pt with HFpEF

#### Vasculite da vancomicina

G. Bisceglie<sup>1</sup>, E. Centenara<sup>1</sup>, D. Lacommaro<sup>1</sup>, S. Mazzocchi<sup>1</sup>, E. Palermo<sup>1</sup>, A. Soriani<sup>1</sup>, B. Triponi<sup>1</sup>, E. Vassallo<sup>1</sup>, C. Cagnoni<sup>1</sup>

<sup>1</sup>UO Medicina, Castel San Giovanni (PC), Italy

FF, affetto da diabete mellito insulinotratato, emodializzato. Circa una settimana prima veniva diagnosticata sepsi da MRSA per infezione di CVC, trattata con vancomicina ev post-dialisi dal Nefrologo di riferimento in base ad antibiogramma. Subito dopo la seconda somministrazione di vancomicina il paz presentava eruzione cutanea caratterizzata da porpora al dorso dei piedi, all'addome e all'avambraccio sinistro, estesa poi al terzo inferiore delle gambe, con tendenza alla confluenza delle lesioni; nelle zone di attrito (es cinturino dell'orologio) si sviluppavano bolle emorragiche. Non vi erano né dolore né prurito a livello delle lesioni; il paz era febbrile. Veniva ricoverato nel Nostro Reparto per diagnosi differenziale e terapia. Venivano eseguiti test reumatologici e autoimmunità, avviata terapia steroidea ad alto dosaggio. Visti morfologia delle lesioni, Coombs indiretto positivo, negatività degli indici di emolisi e PLT nella norma si ipotizzava una vasculite da vancomicina, confermata dal Dermatologo; Infettivologo escludeva una vasculite da MRSA; vancomicina veniva sostituita con daptomicina d'accordo con consulenti Infettivologo e Nefrologo. Il paz presentava miglioramento sia delle lesioni sia dello stato settico. La vasculite a prevalente interessamento cutaneo è caratterizzata da formazione e deposito di immunocomplessi a livello di venule e arteriole, locale apoptosi dei neutrofili, danno vascolare e microemorragia tissutale. È idiopatica o, in circa il 30% dei casi, secondaria a vari antigeni, tra cui numerosi farmaci. La terapia prevede steroide 1 mg/kg/die per periodo prolungato.

#### Esperienza nell'uso del prednisone a rilascio modificato in pazienti affetti da artrite in corso di connettivite indifferenziata non responsiva ai FANS. Studio di coorte su 11 casi

E. Bizzi<sup>1</sup>, S. Rotunno<sup>1</sup>, A. Armiento<sup>1</sup>, A. Bianchi<sup>1</sup>, V. Della Chiara<sup>1</sup>, F. Lasaracina<sup>1</sup>, D. Larussa<sup>1</sup>, R. De Angelis<sup>1</sup>, M. Martinelli<sup>1</sup>, O. Guarino<sup>1</sup>, C. Valente<sup>1</sup>, L. Xiao<sup>1</sup>, L. Giubilei<sup>1</sup>, M. Cassol<sup>1</sup>

<sup>1</sup>Medicina Interna, S. Pietro FBF Hospital, Rome, Italy

**Background:** L'approccio terapeutico ai pazienti affetti da connettivite indifferenziata (CI) rimane ancora da chiarire.

**Obiettivi:** Riportiamo i dati sull'uso di steroidi a rilascio modificato (Lodotra<sup>®</sup>, Mundipharma) in 11 pazienti affetti da CI e sintomatologia esclusivamente artritica naive a tutti i farmaci immunosoppressori ma non responsivi a terapia a base di FANS.

**Materiali e Metodi:** In tutti i pazienti la condizione di artrite è stata diagnosticata sia clinicamente che mediante ecografia delle articolazioni interessate e valutazione del segnale Power Doppler a livello della capsula sinoviale. Tutti i pazienti sono stati avviati ad una terapia a base di Lodotra<sup>®</sup> (Mundipharma) 5mg, 1 compressa tutti i giorni alle ore 22 per due mesi. Tutti i parametri sia clinici che di laboratorio sono stati osservati ogni 2 mesi per 6 mesi.

**Risultati:** Tutti i pazienti hanno completato il followup a 6 mesi. Nessuno dei pazienti ha riferito o presentato eventi avversi alla terapia. In tutti i pazienti è stato ottenuto un miglioramento sintomatologico dell'artrite. Tale miglioramento si è mantenuto in tutti i pazienti fino a 4 mesi dall'interruzione della terapia, termine del followup.

**Conclusioni:** Il prednisone a rilascio modificato può rappresentare una valida opzione per il trattamento di pazienti affetti da forme artritiche in corso di CI non responsive ai FANS.

#### An unusual case of mediterranean spotted fever with arthritis

E. Blasi<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. Cioni<sup>1</sup>, C. Florenzi<sup>1</sup>, L. Corbo<sup>1</sup>, G. Zaccagnini<sup>1</sup>, M.S. Rutili<sup>1</sup>, T. Fintoni<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

A 71-year-old woman with arterial hypertension and diabetes mellitus was admitted to the hospital because of relapsing-remitting fever, dactylitis of the second finger of the right hand, ankle arthritis and arthritis of mid-tarsal joint of the left. Physical exam revealed systolic cardiac murmur. Hemogasanalysis showed respiratory failure type 1. The blood tests showed leukocytosis, increased procalcitonin and C-reactive protein level, polyclonal hypergammaglobulinemia. Blood cultures, HIV serological testing,

venereal disease research laboratory test, throat and vaginal and urethral swab were negatives. Autoantibody screen was positive for anti-nuclear antibody and negative for rheumatoid factor, cyclic citrullinated peptide and extractable nuclear antigens antibodies. Elevated Rickettsia antibody level and antistreptolysin O titer were revealed. Transesophageal echocardiography was negative. Chest radiography and tomography showed bilateral basal consolidation, ground-glass opacities in the right lower lobe, left pleuric effusion. Right hand radiography revealed erosive osteoarthritis of distal interphalangeal joint of second finger. Joint ultrasound of right hand, left ankle and foot showed synovitis and enthesitis of these joints. Compression ultrasonography was negative for lower limb deep vein thrombosis. The patient was treated with doxycycline showing improvement for his condition. Arthromyalgia are frequent in Mediterranean spotted fever but arthritis is rare. Doxycycline is recommended for treatment of Rocky Mountain spotted fever.

### Is there a role for positron emission tomography in evaluating fever of unknown origin? A case of paucisymptomatic Horton's disease

E. Blasi<sup>1</sup>, S. Baroncelli<sup>1</sup>, E. Antonielli<sup>1</sup>, A. Crociani<sup>1</sup>, G. Cioni<sup>1</sup>, L. Corbo<sup>1</sup>, M.S. Rutigli<sup>1</sup>, T. Fintoni<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

A 61-year-old smoking woman, underwent colonoscopic polypectomy to remove two benign polyps two years ago, was admitted to the hospital because of low grade fever and fatigue for two months. Her physical exam didn't show abnormalities. The blood tests showed neutrophilic leukocytosis, normocytic anemia, increased reticulocytes, vitamin B12 level, procalcitonin and C-reactive protein level. Autoantibodies screen was negative. IgG anti EBV-VCA level was increased. Electrocardiogram revealed sinus tachycardia. Echocardiography and chest radiography were negative. Neck, chest and abdomen tomography showed millimetric thoracoabdominal lymphadenopathy; any pathological lesion in the hypocondriac organs. A positron emission tomography (PET) showed a large-vessel vasculitis (common carotid and subclavian arteries, thoracic and abdominal aorta). A color doppler ultrasound of the temporal, axillary and subclavian artery and aortic arch confirmed diagnosis of vasculitis. Temporal artery biopsy revealed lesions suggestive of Horton's disease. The patient was treated with high-dose corticosteroids showing improvement in her condition. Horton disease is a systemic immune-mediated vasculitis affecting medium-sized and large-sized arteries. Typical forms are recognized but occult or incomplete forms are misleading. Paucisymptomatic form are categorized into ocular, febrile or anemic monosymptomatic forms, extraocular ischemic forms and pseudotumoral forms. In this case PET scan was useful in identifying the origin of the inflammatory state of a paucisymptomatic Horton's disease.

### The renal arterial resistance index and nocturnal non-dipping hypertension

C. Bologna<sup>1</sup>, F. Mazzella<sup>2</sup>, M. Giordano<sup>3</sup>, T. Ciarambino<sup>1</sup>, N. Passariello<sup>4</sup>

<sup>1</sup>Ospedale Clinicizzato Marcianise ASL CE; <sup>2</sup>ASL NA 1; <sup>3</sup>Seconda Università degli Studi di Napoli; <sup>4</sup>Ospedale Clinicizzato Marcianise AL CE, Italy

**Introduction:** The renal resistive index (RRI) is measured by Doppler sonography in an intrarenal artery, and is the difference between the peak systolic and end-diastolic blood velocities divided by the peak systolic velocity. The RRI is used for the study of vascular and renal parenchymal renal abnormalities, but growing evidence indicates that it is also a dynamic marker of systemic vascular properties.

**Methods:** We enrolled 48 patients in stable clinical conditions and no therapy. 20 dipper (9 men e 11 women, aged  $68 \pm 3$  years) e 28 non dipper (16 men e 12 women aged  $70 \pm 5$ ). Peak systolic velocity and end diastolic velocity of a segmental renal artery were obtained by pulsed Doppler flow, and RRI was calculated. Creatinine serum levels were evaluated at baseline and clearance with Cockcroft-Gault. Higher RRI Renal Doppler ultrasonography (RDU) is a useful method to determine renal resistive index (RRI). The RRI has been used to evaluate target organ dam-

age (TOD) in essential hypertension. Patients with newly diagnosed essential hypertension underwent 24-h ambulatory BP monitoring, biochemistry analysis, 24-h urine testing. RRI was increased in 32.3% of non-dipper patients and in 26.5% of dipper patients ( $P=0.402$ ). The RRIs of dippers were lower than the RRIs of non-dippers ( $p=0.036$ ).

**Results:** In multivariate linear regression analysis, increased RRI and nocturnal non-dipping are not independently associated with age ( $p=0.004$ ).

### Visceral fat as a marker of effectiveness of mediterranean diet

L. Bonfrate<sup>1</sup>, F. Minerva<sup>2</sup>, F. Mastroianni<sup>3</sup>, L. Ranieri<sup>3</sup>, M. Errico<sup>3</sup>

<sup>1</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti; Department of Biomedical Sciences and Human Oncology, University of Bari; <sup>2</sup>Department of Biomedical Sciences and Human Oncology, University of Bari; <sup>3</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti, Italy

**Background:** visceral adipose tissue (VAT) is associated with metabolic abnormalities. VAT is a marker of ectopic fat in many sites, and a decrease of VAT can represent a marker of success during dietary plan. This study aimed to evaluate the correlation between VAT and metabolic patterns in obese subjects undergoing a hypocaloric-mediterranean diet.

**Methods:** in a 6 mo. diet enrolled were 87 obese subjects (53 F:34 M,  $51\text{yrs} \pm 1.4$  SE and  $56.4 \pm 1.1$ , respectively). At baseline and at the end of the protocol, subjects underwent anthropometric evaluation, biomoral exams (*i.e.*, insulinemia, Cholesterol, HDL-C, Triglycerides, fasting glycemia, GPT, uric acid), ultrasound examination (degree of liver steatosis, thickness of subcutaneous fat and visceral fat).

**Results:** While subcutaneous fat was positively correlated only with BMI, visceral fat was correlated with BMI, fasting glycemia, insulinemia, HDL, total cholesterol, triglycerides, liver steatosis. After a 6 mo. mediterranean diet, a significant improvement was recorded according to anthropometric, ultrasonographic and biomoral exams.

**Conclusions:** Visceral fat is a metabolically active tissue. VAT correlates with the metabolic profile of patients and can be used as marker in evaluating the effects of an alimentary program.

### Utilità della TC-PET nella diagnosi di polimialgia reumatica

G. Bonoldi<sup>1</sup>, G. Calcagno<sup>2</sup>, G. Castiglioni<sup>1</sup>, L. Pelucco<sup>1</sup>, S. Puricelli<sup>1</sup>, D. Zanotta<sup>1</sup>

<sup>1</sup>U.O. Medicina 2, Ospedale di Busto Arsizio (VA); <sup>2</sup>U.O. Medicina Nucleare, Ospedale di Busto Arsizio (VA), Italy

**Introduzione:** La polimialgia reumatica (PMR) non presenta reperti patognomonici per la diagnosi, che è basata sulla presenza di sintomatologia tipica, elevazione degli indici di flogosi e sulla rapida risposta alla terapia steroidea.

**Caso clinico:** Paziente di 60 anni, maschio, portatore di idrocefalo tetra-ventricolare post-traumatico trattato con derivazione liquorale ventricolo-atriale, giunto alla nostra osservazione per astenia, calo delle performances cognitive, brivido, algie lombari e del cingolo pelvico, riscontro di sangue occulto fecale. Agli esami di laboratorio anemia microcitica ed elevazione degli indici di flogosi; ANA, ENA, anticorpi anti PCC negativi. Sottoposto a colonscopia, con riscontro di polipo del colon, asportato; nella norma EGDS, Rx-torace, ecografia addome, ecocardiografia, EEG. Per escludere una infezione a livello della derivazione ventricolo-atriale eseguita TC-PET totalbody con FDG, che ha evidenziato iperfissazione delle articolazioni scapolo-omerali, sterno-claveari, coxo-femorali, dei processi spinosi e a livello delle inserzioni muscolari sul pube: tali reperti sono risultati fortemente suggestivi per PMR. Avviata terapia con prednisone con rapido miglioramento clinico.

**Conclusioni:** La TC-PET è stata decisiva per porre diagnosi di PMR. Pur presentando spesso un pattern caratteristico, non esiste ancora consenso per l'utilizzo della PET per la diagnosi di PMR. In casi selezionati, la TC-PET può essere utile nel percorso diagnostico di pazienti con sospetta PMR in particolare per la diagnosi differenziale con patologie infettive o neoplastiche.

### Utilità del monitoraggio ecografico in una paziente con lesioni spleniche rapidamente ingrossanti

G. Bonoldi<sup>1</sup>, A. Ballabio<sup>2</sup>, S. Cappello<sup>1</sup>, R. Capra<sup>1</sup>, T. Ciampani<sup>1</sup>, S. Puricelli<sup>1</sup>, D. Zanotta<sup>1</sup>

<sup>1</sup>U.O. Medicina 2, Ospedale di Busto Arsizio (VA); <sup>2</sup>U.O. Chirurgia Generale, Ospedale di Busto Arsizio (VA), Italy

**Introduzione:** La milza è un organo facilmente esplorabile all'esame ecografico; in caso di riscontro ecografico di lesioni focali in diagnosi differenziale occorre considerare ematomi, ascessi, cisti, neoplasie ed infarti splenici.

**Caso clinico:** Donna di 81 anni, nota per fibrillazione atriale in terapia con rivaroxaban, giunta in PS per comparsa di febbre e dispnea; alla radiografia del torace riscontro di versamento pleurico sinistro, agli esami ematici leucocitosi e PCR elevata; in PS avviata terapia antibiotica con piperacillina-tazobactam, previa esecuzione di emocolture; all'esame ecografico eseguito in reparto riscontro di due lesioni spleniche focali, la più grande delle quali di forma rotondeggiante, con ecostruttura prevalentemente anecogena, suggestiva per ascesso. È stata eseguita a distanza di due giorni ecografia con contrasto, che non ha fornito ulteriori informazioni. In attesa del risultato delle emocolture sono state proseguite la terapia antibiotica e quella anticoagulante. Un successivo controllo ecografico distanza di 5 giorni ha evidenziato una progressione delle lesioni spleniche con comparsa di estese raccolte sottocapsulari; si è quindi sospesa la terapia anticoagulante e eseguita TAC urgente, che ha confermato il reperto ecografico; la splenectomia, eseguita a distanza di 72 ore dalla sospensione di rivaroxaban, ha evidenziato milza quasi completamente sovraccaricata con ematoma e plurimi ascessi.

**Conclusioni:** L'ecografia bedside ha permesso di rilevare la presenza di lesioni spleniche e la loro rapida evoluzione, che ha portato alla splenectomia.

### Fever of uncertain origin... don't give up

R. Bonometti<sup>1</sup>, M. Bellan<sup>2</sup>, A. Gualerzi<sup>1</sup>, A. Gibbin<sup>1</sup>, A. Re<sup>1</sup>, S. Strada<sup>1</sup>, E. Avitabile<sup>1</sup>, P.P. Sainaghi<sup>1</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina traslazionale, UPO, Novara; <sup>2</sup>Azienda Ospedaliera Sant'Andrea, Vercelli, Italy

**Case report:** A 76 years old woman was admitted because of fever. On examination she had 2/6 systolic murmur, no other significant signs or symptoms. She hadn't medical history.

**Diagnosis:** At laboratory data she had elevated ESR and CRP, anemia and hyperferritinemia. Cultures were negative. Serological virology of EBV, CMV, HBV, HCV, HIV were negative, as well as autoimmunity. Abdominal CT and X-ray were negative. Ecocardiogram showed little pericardial effusion, no endocarditis. PET-CT has demonstrated accumulation of the tracer at thoracic, abdominal aorta, iliac and carotid arteries. Angio CT showed small and omogeneus thickening of the aortic vessel wall in thoracic and abdominal aorta. The clinical re-investigation of the patient reported headache and dysesthesia on the scalp. On examination mild temporal artery thickening dx. A temporal biopsy was performed which demonstrated a giant cell arteritis.

**Discussion:** giant-cell arteritis is a chronic vasculitis of large and medium size vessels that affects individuals over 50 years of age, with a preference for females and Caucasians. The classic symptoms are characterized by fatigue, fever, anemia, headache, which may be associated with unintentional weight loss, anorexia, arthralgia spread, diplopia, jaw claudication and amaurosis fugax. However, the initial manifestations are not always so specific and can hide behind a FUO. Include, systematically, the giant cell arteritis in differential diagnosis of FUO in the elderly, can accelerate the resolution of the most classic of internal medicine puzzles, as this case demonstrates.

### A rare cause of gastrointestinal disorders

E. Bontempelli<sup>1</sup>, F. Cagnoni<sup>1</sup>, A. Besozzi<sup>1</sup>, A. Belotti Masserini<sup>1</sup>, G.P. Dognini<sup>1</sup>, M. Destro<sup>1</sup>

<sup>1</sup>Department of Medical Science, Internal Medicine Center, ASST Bergamo Ovest, Treviglio (BG), Italy

A 69-year-old male was admitted with 2 months of watery diarrhea. He took Rifaximin and probiotics and Metformin treatment was discontinued. His abdomen was soft and no abdominal masses were noted. Blood examination showed metabolic acidosis and hypokaliemia. The patient was treated with intravenous rehydration, sodium bicarbonate and potassium replacement. Stool samples for Clostridium Difficile, bacteria, parasites were negative. Colonoscopy and EGDS were negative and abdominal ultrasound only revealed liver steatosis. During hospitalization he developed shock with multi-organ failure. The night before the shock he had diarrhea of up to 10 to 12 loose bowel movements. Blood samples were collected and we administered intravenous antibiotic therapy and fluid repletion. Treatment with inotropic agents was initiated because of volume-resistant hypotension. The blood cultures were positive for Enterobacter Cloacae. Computed tomography scan revealed a malignant mass in the body-tail of his pancreas, involving spleen and stomach. A fine-needle aspiration biopsy was performed for histologic examination (grade 2 neuroendocrine neoplasm). He also underwent an octreotide radionuclide study. The patient was treated with short-acting Octreotide and showed good control of his diarrhea. Then the patient underwent a distal pancreatectomy with splenectomy and resection of the posterior wall of body of stomach. Final pathology demonstrated a malignant grade 1 neuroendocrine neoplasm of the tail of the pancreas. The mass was found to be a VIPOMA. The patient is alive and disease-free 8 months after surgery

### Hirata syndrome

E. Bontempelli<sup>1</sup>, F. Cagnoni<sup>1</sup>, A. Besozzi<sup>1</sup>, G.P. Dognini<sup>1</sup>, A. Belotti Masserini<sup>1</sup>, M. Destro<sup>1</sup>

<sup>1</sup>Department of Medical Science, Internal Medicine Center, ASST Bergamo Ovest, Treviglio (BG), Italy

A 59-year-old male was admitted with episodes of weakness, sweating and loss of consciousness. Patient medical history included hypertension and recent episode of Herpes Zoster treated with Aciclovir. His blood examination at the time of admission were notable for hypoglycemia (35 mg/dl), normal liver function and normal TSH. He had never taken insulin or oral hypoglycemic agents before. His plasma serum insulin was high (47 U/ml) and C-peptide was 12 ng/ml (normal value 0.9-7.1). Cortisol and ACTH were normal. Glucose infusion was administered multiple times because of persistent hypoglycemia. Computed tomography scan of the abdomen revealed no abnormal lesion in the pancreas. Upon further examination, the patient revealed that, in addition to Aciclovir, he had taken a multivitaminic formula containing  $\alpha$ -lipoic agent (ALA) 400 mg twice a day as treatment for Herpes Zoster. Anti-insulin antibodies were present in high titer. Considering the recent assumption of ALA and the high titer of anti-insulin antibodies, a diagnosis of Insulin Autoimmune Syndrome (Hirata Syndrome) was made. The patient was treated with Prednisone 1mg/kg and showed normalized blood glucose levels after 5 days of treatment.  $\alpha$ -Lipoic agent treatment had already been suspended since the day of admission. The dose of Prednisone was slowly tapered and the patient remained asymptomatic with normal blood glucose levels. Anti-insulin antibodies decreased in the following months. Hirata Syndrome is a rare disease in Caucasian patients and assumption of ALA can be the cause of it in patients with genetic predisposition.

### Follicular lymphoma of distal duodenum: a lucky and rare diagnosis in patients with few symptoms

P. Borgheresi<sup>1</sup>, M.T. De Donato<sup>2</sup>, M. Renis<sup>3</sup>, F.M. Di Filippo<sup>1</sup>

<sup>1</sup>U.O.C. Gastroenterologia e Bleeding Center A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>2</sup>U.O.C. Medicina A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>3</sup>U.O.C. Medicina, P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno, Italy

**Introduction:** Follicular lymphoma is the most common subtype of indolent non-Hodgkin's lymphoma. Most patients present Ann Arbor stage III or IV; only 5-10% patients present early stage I or II. Intestinal follicular lymphoma have favorable clinical courses, different from their nodal counterpart.

**Case report:** M, 60. To our observation because of gastric pain

and decrease in body weight. He underwent esophagogastroduodenoscopy (EGDS): multiple whitish nodules in distal duodenum. Biopsy samples showed tumor follicles with germinal center. The immunophenotyping showed B-cell lymphoma (BCL2+ and CD20+ positive). The patient underwent video-capsule enteroscopy that showed several similar lesions in the proximal tract of small bowel and a lesser number in ileum. So he was referred to the Hematology unit, underwent CT - PET scanning and bone marrow examinations. He was assigned Ann Arbor stage IE.

**Discussion:** Intestinal follicular lymphomas mainly involve duodenum. Since development of enteroscopy devices, such as double-balloon and video-capsule enteroscopy, we can study involvement of jejunum and ileum. Among intestinal follicular lymphomas, the cases of lesions in jejunum and ileum range from 66.7 to 100%.

**Conclusions:** These results emphasize the importance of enteroscopy examinations to precisely evaluate the extent of intestinal lesions in follicular lymphoma patients. Internists should be aware that follicular lymphoma patients with gastrointestinal involvement must be investigated according to the general guidelines for systemic follicular lymphoma.

### Meta-analysis comparing hypoglycemia rates of insulin degludec with insulin glargine across clinical trials with up to 2-year duration

V. Borzi<sup>1</sup>, A. Philis-Tsimikas<sup>2</sup>, B. Bode<sup>3</sup>, S. Del Prato<sup>4</sup>, J. Gross<sup>5</sup>, C. Mathieu<sup>6</sup>, L. Troelsen<sup>7</sup>, M.V. Leeuwen<sup>7</sup>, B. Zinman<sup>8</sup>

<sup>1</sup>Department of Internal Medicine, Hospital "Policlinico Vittorio Emanuele", Catania, Italy; <sup>2</sup>Scripps Whittier Diabetes Institute, San Diego, USA; <sup>3</sup>Atlanta Diabetes Associates, Atlanta, GA, USA; <sup>4</sup>University of Pisa, Pisa, Italy; <sup>5</sup>Universidade Federal do Rio Grande de Sul, Porto Alegre, Brazil; <sup>6</sup>UZ Leuven, Leuven, Belgium; <sup>7</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>8</sup> Mount Sinai Hospital, University of Toronto, Toronto, ON, Canada

Insulin degludec (IDeg) is a basal insulin with a long and stable glucose-lowering effect with low day-to-day variability. A comparison of the rate of hypoglycemia with IDeg versus insulin glargine (IGlar) across phase 3a trials, including all available trial extensions (n=4) plus one new trial was performed post hoc; IDeg: n=3454; IGlar: n=1709; T1D: 2 trials; T2D: 6 trials. Hypoglycemia was defined as rates of self-reported confirmed hypoglycemia (BG <56 mg/dL or severe hypoglycemia requiring assistance) and nocturnal confirmed hypoglycemia (00:01-05:59 both incl.). Rates were analyzed with a negative binomial regression model on patient level data. IDeg resulted in statistically significantly lower rates of confirmed and nocturnal confirmed hypoglycemia versus IGlar in T2D, and for nocturnal confirmed hypoglycemia in T1D. Analyses of the maintenance period (from 16 weeks onwards), demonstrated more pronounced benefits with IDeg versus IGlar in both T1D and T2D. In conclusion, this post hoc meta-analysis confirms and extends the outcomes of a previously published pre-specified meta-analysis. Even with the inclusion of additional trial data for up to two years' duration, the lower rates of both overall (T2D) and nocturnal confirmed (T1D and T2D, respectively) hypoglycemia with IDeg versus IGlar are maintained.

### Hypertrophic osteoarthropathy masquerading as reactive arthritis: a case report and review of literature

F. Bozzao<sup>1</sup>, S. Cecco<sup>1</sup>, S. Bettio<sup>1</sup>, M.F. Leone<sup>1</sup>, F. Fischetti<sup>1</sup>

<sup>1</sup>Azienda Sanitaria-Universitaria Integrata di Trieste, Italy

**Background:** Hypertrophic osteoarthropathy (HOA) is a syndrome characterized by digital clubbing and periostosis of tubular bones. **Case presentation:** A 77-years old man was admitted to hospital because of fever, a 2-month history of episodic diarrhea and arthralgia of both hands, wrists and knees. Clinical examination revealed swollen wrists, a swollen left knee and digital clubbing of fingers and toes, with an abnormally increased phalangeal depth ratio. Serum CRP and ESR were high; blood and stool cultures were negative. The patient had been treated with analgesics and corticosteroids for suspected reactive arthritis (RA), without improvement. Radionuclide bone scanning showed symmetrical accumulations of (99m) Technetium in the long bones, suggesting

HOA. The patient then underwent a chest high resolution CT, which showed patchy bilateral lung infiltrates, with a prominent nodule in the periphery of lower right lobe. After a non diagnostic bronchoalveolar lavage, diagnosis of lepidic-predominant lung adenocarcinoma was established through a transbronchial biopsy. Further radiological examinations had excluded metastasis, but the patient died two weeks later because of severe pneumonia.

**Conclusions:** The review of literature has shown that clinical presentation of HOA tends to vary widely. HOA can mimic an inflammatory arthritis, but digital clubbing and failure to respond to standard anti-rheumatic therapies should help physicians in differential diagnosis, which is particularly important because HOA has a strong association with malignancies.

### Una "intossicazione" endogena da monossido di carbonio

I. Bracali<sup>1</sup>, A. Giani<sup>1</sup>, L. Guarducci<sup>1</sup>, M. Bertoni<sup>1</sup>, E. Calabrese<sup>1</sup>, A. Foschini<sup>1</sup>, P. Lotti<sup>1</sup>, R. Martini<sup>1</sup>, G. Mugnaioni<sup>1</sup>, T. Restuccia<sup>1</sup>, F. Risaliti<sup>1</sup>, S. Zanieri<sup>1</sup>, M.E. Di Natale<sup>1</sup>

<sup>1</sup>Medicina 2, Ospedale Santo Stefano di Prato, Italy

**Premessa:** Il monossido di carbonio (CO) è un prodotto della combustione incompleta dei combustibili organici. Una minima quota endogena di CO è prodotta anche durante il processo di degradazione dell'eme a biliverdina da parte dell'eme-ossigenasi.

**Caso clinico:** E.A. uomo di 35 anni di origine marocchina, omozigote per anemia falciforme, veniva ricoverato il per una crisi emolitica. La bilirubina totale era 4.1 mg/dL, l'LDH 1013U/L, l'HbS 67.1%, l'ematocrito 23.1%. Alle emogasanalisi arteriose seriate venivano rilevati elevati valori di carbossiemoglobina (COHb), fino a 5.5%, in assenza di ipossiemia. Il paziente non aveva storia di esposizione attiva o passiva al fumo di sigaretta, né esposizione ambientale a rischio, né storia di patologia cronica polmonare. Una TC torace ha escluso la presenza di patologia polmonare acuta. Le colture ematiche e delle urine erano negative. Il paziente è stato trattato con ossigeno, terapia antalgica, idratazione endovenosa ed emotrasfusioni ed è stato dimesso dopo 10 giorni in terapia con idrossiurea con indicazione a valutazione specialistica per terapia trasfusionale di scambio eritrocitario.

**Conclusioni:** Esistono numerosi casi riportati in letteratura che hanno descritto la presenza di elevati valori di COHb in soggetti con anemia emolitica, come conseguenza dell'aumentata degradazione del gruppo eme. Nel caso dell'emolisi secondaria ad anemia falciforme esistono studi che mettono in correlazione i livelli di COHb con la severità dell'attività emolitica, assieme ai classici indicatori ematocrito, reticolociti e bilirubina indiretta.

### Sindrome di Good in paziente con splenectomia post-traumatica: difficile gestione nonostante la diagnosi precoce

L. Brugioni<sup>1</sup>, C. Gozzi<sup>1</sup>, M.C. Rosa<sup>1</sup>, F. De Niederhausern<sup>1</sup>, G. Calderone<sup>2</sup>, F. Mori<sup>2</sup>, L. Amidei<sup>2</sup>

<sup>1</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>2</sup>Università degli Studi di Modena e Reggio Emilia, Scuola di Specialità in Medicina d'Emergenza e Urgenza, Modena, Italy

**Background:** La Sindrome di Good è una patologia rara caratterizzata da timoma ed immunodeficienza per deficit di cellule B, ipogammaglobulinemia e alterazioni dell'immunità cellulo-mediata. La timectomia non risolve l'immunodeficienza ma previene l'invasione locale e metastatica.

**Caso clinico:** Donna, 45aa. In APR splenectomia post-traumatica con milze satelliti residue e piastrosi. Giunge per stato settico, severa anemia, sincope con dolore toracico, febbre, tosse e diarrea. Rx torace negativo. All'ecografia lesione ascessuale splenica. Alla TC neoformazioni compatibili con timoma, TEP ed infarto polmonare, trombosi dell'arteria renale di sinistra; il quadro clinico fa sospettare un'immunodeficienza, confermata dal laboratorio. L'agammaglobulinemia in associazione a timoma, definisce la S. di Good. L'immunodeficienza determinava: setticemia da *E.coli*, colite da *CMV*, candidosi esofagea, ascesso gluteo, IVU da *K.pneumoniae*. Stabilizzato il quadro infettivo si procedeva a intervento chirurgico di timectomia. La settimana seguente nuovo ricovero

per TVP della vena grande safena, riacutizzazione di colite da CMV e setticemie da *E. Coli* e *B. Fragilis*.

**Conclusioni:** La diagnosi di timoma può precedere l'ipogammaglobulinemia. Il dosaggio precoce delle Ig nei pazienti con timoma permette di identificare questa sindrome e, come nel nostro caso, di iniziare immediatamente il trattamento salvavita con IVIG e terapie antibiotiche/antivirali. La mortalità è influenzata da infezioni, patologie autoimmuni e complicanze ematologiche. La presenza di trombofilia peggiora la prognosi.

### Parotid space infection: "Red Flag" of hidden immunocompromised states? A case report

L. Brugioni<sup>1</sup>, C. Ognibene<sup>2</sup>, D. Vivoli<sup>2</sup>, A. Karampatou<sup>2</sup>, S. Scarabottini<sup>3</sup>, F. Piani<sup>3</sup>, F. Mori<sup>3</sup>

<sup>1</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>2</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>3</sup>Università degli Studi di Modena e Reggio Emilia, Scuola di Specialità in Medicina d'Emergenza e Urgenza, Modena, Italy

**Background:** The spread of antibiotic therapy made deep neck space infections, such as those involving the parotid space, a rarer disease in clinical practice. These infections are more frequent in immuno-compromised patients and can rapidly progress to life-threatening complications, recommending early and aggressive treatment with intravenous antibiotics and surgical drainage. Computed tomography (CT) and magnetic resonance imaging (MRI) are the diagnostics of choice.

**Case report:** Male, 68 years old, complained dyspnea, dysphagia, right-sided facial hypoesthesia and a painful swelling right facial and neck mass. He also reported loss of weight (15 kg in 2 months). He took no drugs and his medical history was clean except for prostatic hypertrophy. Laboratory tests showed: increased inflammatory markers (WBC 34,600/mm<sup>3</sup>, RCP 4.3 mg/dL), hyperamylasaemia (262 U/L), mild anemia, acute kidney injury. Face and neck ultrasound and MRI showed an abscess of 11x7x6.6cm involving parotid, parapharyngeal and masticator spaces. Removal of lymph nodes, during surgical drainage, excluded local neoplasm. Negative serology for HIV, hepatitis B and C did not support the severity of the infection but the dosage of neoplastic markers showed an increased level of Ca 19.9 (71.8 U/mL). Colonoscopic biopsy revealed an infiltrating tubulovillous adenoma with high grade dysplasia for which laparoscopic left colectomy was performed.

**Conclusions:** Parotid space infection can be the first sign of an hidden immunosuppression condition, even on neoplastic base, which has to be further investigated.

### Deficit di G6PDH: le fave ti sorprendono quando meno te lo aspetti!

L. Brugioni<sup>1</sup>, M.C. Rosa<sup>1</sup>, C. Ognibene<sup>1</sup>, P. Martella<sup>1</sup>, A. Righetti<sup>2</sup>, S. Campanale<sup>2</sup>, E. Carella<sup>2</sup>, L. Amidei<sup>2</sup>

<sup>1</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>2</sup>Università degli Studi di Modena e Reggio Emilia, Scuola di Specialità in Medicina d'Emergenza e Urgenza, Modena, Italy

KM, donna, 34 aa, marocchina, giungeva per comparsa, dopo abbondante pasto a base di fave cotte, assunte per la prima volta, di addominalgia, nausea, ittero, urine ipercromiche e febbre. Agli esami iperbilirubinemia indiretta e lieve anemia normocitica. L'ecografia dell'addome non mostrava alterazioni. APR e APF mute. Il peggioramento dell'anemia, l'incremento di LDH, reticolociti e ferritina e l'aptoglobina consumata confermavano il quadro di emolisi acuta. Si eseguivano Test di Coombs diretto e indiretto, ricerca delle crioglobuline e studio EPN tutti negativi, G6PDH ereditaria, Ceruloplasmina e piombo ematico nei limiti, elettroforesi proteica e profilo cromatografico delle frazioni emoglobuliniche nella norma. Lo striscio di sangue periferico non forniva informazioni aggiuntive. Lo studio delle porfirine plasmatiche escludeva la protoporfiria eritropoietica. Il dato anamnestico dell'assunzione di fave ci permetteva di fare diagnosi di favismo confermato dopo aver escluso tutte le cause di emolisi acuta attraverso esami biochimici e di imaging. L'aumento dei reticolociti infatti provoca un

aumento transitorio della G6PDH in acuto per cui non è sufficiente ad escludere l'enzimopatia da deficit di G6PDH. La G6PDH è la proteina con maggior numero di varianti geniche, questo fa sì che ci siano altrettante manifestazioni cliniche della malattia, alcune delle quali misconosciute fino all'età adulta, per cui in caso di crisi emolitica è fondamentale sospettare il favismo ed eseguire un'anamnesi accurata tenendo in considerazione l'epidemiologia e la provenienza del paziente.

### Ascesso epatico da *Citrobacter koseri*: quando l'appendicite gangrenosa perforata lascia il segno!

L. Brugioni<sup>1</sup>, C. Ognibene<sup>1</sup>, M.C. Rosa<sup>1</sup>, D. Vivoli<sup>1</sup>, M. Buda<sup>2</sup>, M. Ravazzini<sup>2</sup>, E. Carella<sup>2</sup>, L. Amidei<sup>2</sup>

<sup>1</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>2</sup>Università degli Studi di Modena e Reggio Emilia, Scuola di Specialità in Medicina d'Emergenza e Urgenza, Modena, Italy

DD, 32 anni, giungeva per febbre e dolore toracico puntorio all'emico-stato dx da un mese, nonostante terapia con FANS e Amoxicillina/Clavulanato. In APR pregressa appendicectomia e lavaggio peritoneale per peritonite diffusa da appendice gangrenosa perforata con liquido peritoneale che permaneva all'ecografia di controllo. All'arrivo agli esami rialzo degli indici di flogosi con emocolture negative. L'ecografia e la TC con mdc documentavano ascesso epatico di 67x59x75mm nel lobo destro. Si introduceva terapia con Piperacillina/Tazobactam e Metronidazolo e si procedeva al drenaggio percutaneo Eco guidato della raccolta. L'esame microbiologico risultava positivo per *Citrobacter Koseri* multisensibile, per cui si dimetteva con Moxifloxacin a domicilio per 4 settimane. TC di controllo ed ecografie successive evidenziavano progressiva riduzione della lesione e la sintomatologia regrediva completamente a conferma dei dati di letteratura secondo i quali l'unica terapia efficace è l'associazione di antibiotico e drenaggio percutaneo TC o eco guidato. Queste infezioni colpiscono prevalentemente neonati e pazienti immunodepressi con quadri di meningiti e accessi cerebrali, e sono rare negli adulti sani, associate a fattori di rischio come DM, cirrosi, uso di PPI, neoplasie, interventi e infezioni addominali. Nel nostro paziente avendo escluso coinfezioni, cause di immunodeficienza e dopo aver eseguito TC total body e colonscopia (negative), l'unica correlazione rimaneva il pregresso intervento addominale di appendicite perforata complicata per cui sarebbe stato necessario follow-up.

### Disfagia e back pain: una causa comune

L. Brugioni<sup>1</sup>, P. Martella<sup>1</sup>, S. Ciaffi<sup>1</sup>, S. Lupacchiol<sup>2</sup>, C. Pignatti<sup>2</sup>, D. Tosatti<sup>2</sup>, V. Santori<sup>2</sup>

<sup>1</sup>Azienda Universitaria-Ospedaliera Policlinico di Modena, Reparto di Medicina Interna ed Area Critica, Modena; <sup>2</sup>Università degli Studi di Modena e Reggio Emilia, Scuola di Specialità in Medicina d'Emergenza e Urgenza, Modena, Italy

**Background:** La iperostosi scheletrica idiopatica diffusa (D.I.S.H.) è una patologia degenerativa idiopatica non infiammatoria che coinvolge i legamenti e le entesi con processi di ossificazione per alterato stimolo osteoblastico. Il Legamento Longitudinale Anteriore (LLA) vertebrale è tra le sedi più colpite con la formazione di osteofiti che determinano sindromi compressive, algiche e rigidità. Frequentemente interessate anche le entesi dello scheletro appendicolare. Il trattamento è antalgico e fisioterapico; chirurgico nelle forme più gravi.

**Case report:** Presentiamo il caso di un paziente di 82 aa, con rigidità dorsale, deambulazione in flessione anteriore e disfagia in progressivo peggioramento. L'EGDS non evidenziava alterazioni, la radiografia del rachide cervicale veniva referata con reperti "di cervico-unco-artrosi"; a una prima valutazione della TC del torace il radiologo non rilevava alterazioni significative. Un successivo esame delle immagini TC ha evidenziato una stenosi ab-extrinseca esofagea a livello C2-C3 in relazione a processo ossificativo del LLA con impedimento funzionale al transito del bolo in esofago. Quadro confermato anche dall'rx transito con pasto baritato.

**Conclusions:** La D.I.S.H. è una condizione sottodiagnostica (prevalenza nei maschi over 75aa del 36,1%) non infrequente



causa di disfagia esofagea. I test morfologici, fatta eccezione della TC eseguita con quesito specifico, possono non identificare le alterazioni. È quindi sempre raccomandato cominciare le indagini con un test funzionale quale l'rx transito con pasto baritato.

### Occult gastrointestinal bleeding in elderly: critical considerations from a false positive result

G. Brusco<sup>1</sup>, V. Nieswandt<sup>1</sup>, F. Sottotetti<sup>2</sup>, P. Cavallo<sup>1</sup>, L. Magnani<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale Civile di Voghera, ASST Pavia;

<sup>2</sup>U.O. Oncologia Medica, ICS Maugeri IRCCS, Pavia, Italy

Video capsule endoscopy (VCE) has revolutionized the study of the small bowel (SB) by providing a reliable method to evaluate endoscopically, the entire SB. Currently VCE is generally recommended as a 3rd level examination, after negative bidirectional endoscopy, in patients with obscure gastrointestinal bleeding. However there are also some open issues, mainly due to technical limitations of this tool, which is not driven from remote control, is unable to take biopsies, insufflate air, suck fluids and sometimes to correctly size and locate lesions. We report the case of a 78 years old woman that presented for positive faecal occult blood test (FOBT) and sideropenic anemia. She underwent a traditional gastroscopy and colonoscopy that resulted negative; subsequently an abdominal CT scan didn't show abnormalities. Due to the persistence of anemia and positive FOBT, a videocapsule examination was performed. This exam demonstrated the presence of ileal and jejunal angioectasias, and a polypoid lesion at distal jejunum, likely attributable to GIST or lipoma. For this suspected diagnosis, the patient was referred to the local surgeon, for laparoscopic/laparotomic intervention. However, the direct examination didn't confirm these pathologic findings. Angioectasia is one of the commonest lesions seen on the VCE in elderly with iron deficient anemia; nevertheless SB tumors (3% of all gastrointestinal tumors) deserve diagnostic consideration. Despite its usefulness and potential, false positive results with VCE are possible, and all the finding need to be critically evaluated.

### La terapia dell'epatite C nei talassemici

N. Buccianti<sup>1</sup>, G. Aulenti<sup>1</sup>, G. Dentamaro<sup>1</sup>, R. Clemente<sup>1</sup>, V. Lascaro<sup>1</sup>, A. Bonelli<sup>1</sup>, P. Santarcangelo<sup>1</sup>, T. La Masa<sup>1</sup>, S. Ciuffreda<sup>1</sup>, A. Ciancio<sup>2</sup>

<sup>1</sup>UOC Medicina Interna, Matera; <sup>2</sup>UOC Ematologia, Matera, Italy

**Premesse:** I nuovi farmaci antivirali (DAA) hanno rivoluzionato la terapia dell'epatite cronica HCV relata con % di successo virologico del 96-98. L'efficacia terapeutica è scarsamente documentata in alcune popolazioni speciali come quella talassemica. Il nostro gruppo presenta la casistica di 13 pts talassemici.

**Materiali e Metodi:** Caratteristiche della casistica: Sesso: 7M; 6F. Età media: 39.8 aa (M); 38 aa (F). Genotipo: 9 (G1b); 2 (G2a); 1 (G2); 1 (G4). Grado Fibrosi: 7 (F4); 6 (F3). Trattamenti antivirali: 9 (ledipasvir); 2 (sofosbuvir/simeprevir); 1 (sofosbuvir); 1 (paritaprevir-ritonavir-ombitasvir-dasabuvir/rivabivirina); durata dei trattamenti: 7 (24 ww); 6 (12 ww).

**Risultati:** Risposta virologica sostenuta nel 100% della casistica (follow-up post-terapia: 6-12 mesi). Eventi avversi: nessuno. Miglioramento del grado di fibrosi valutata con fibroscan (KPa): passaggio dal valore medio di 13.4 KPa (prima del trattamento) a 10.6 KPa (post-trattamento). Miglioramento dei livelli di ferritina: da 798 ng/ml (prima del trattamento) a 501 ng/ml (post-trattamento).

**Considerazioni:** Nella popolazione talassemica, le nuove terapie antivirali hanno mostrato di essere efficaci e sicure. La Risposta Virologica Sostenuta si associa nel tempo al miglioramento del grado della fibrosi e della riduzione dei livelli di ferritina. Tali outcomes si realizzano attraverso l'eliminazione della noxa patogena (virus) e della flogosi associata.

### Sindrome post-intervallare: quale ruolo per l'imaging cerebrale e per la terapia iperbarica?

L. Burberi<sup>1</sup>, A. Torrighiani<sup>1</sup>, S. Fruttuoso<sup>1</sup>, F. Corradi<sup>1</sup>, A. Morettini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliera Universitaria Careggi, Firenze, Italy

**Background:** La sindrome post-intervallare (SPI) è un quadro neu-

ropsichiatrico che si manifesta a distanza di tempo dall'intossicazione acuta da CO. Il ruolo delle indagini strumentali nella diagnosi di SPI non è ancora stato stabilito con certezza. Alcuni studi suggeriscono l'utilizzo della RM, ove risulterebbe suggestivo per SPI il riscontro di iperintensità diffusa, bilaterale, del centro semiovale e della sostanza bianca periventricolare nelle sequenze T2. Non esistono, invece, linee guida e raccomandazioni per il trattamento della sindrome. Sebbene alcune evidenze supportino l'impiego della terapia iperbarica (TIB), la Società Italiana di Medicina Iperbarica non ne suggerisce l'utilizzo nella SPI.

**Caso clinico:** A gennaio us viene ricoverata nel nostro reparto una paziente di 79 anni per comparsa di stato confusionale, 15 giorni dopo un episodio di intossicazione da CO. La RM dell'encefalo nelle sequenze T2-pesate evidenzia una diffusa iperintensità bilaterale della sostanza bianca periventricolare e del centro semiovale, compatibili con diagnosi di sindrome post-intervallare. La gravità del quadro neuropsichico e l'assenza di precise raccomandazioni hanno reso impossibile l'utilizzo della TIB. La terapia di supporto, pur generando un lieve miglioramento, non ha modificato, di fatto, il quadro clinico.

**Conclusioni:** Il caso descritto supporta l'utilizzo della RM nella diagnosi di SPI, coerentemente con quanto riportato in letteratura. Si rende necessario altresì stabilire un percorso terapeutico per tali pazienti, con particolare riferimento all'impiego della TIB.

### Dal laboratorio al reparto: un percorso per la prevenzione dei microrganismi sentinella

M. Busnelli<sup>1</sup>, P. Figini<sup>2</sup>, C. Bassino<sup>3</sup>, D. Tettamanzi<sup>3</sup>, C. Prete<sup>3</sup>, E. Sala<sup>4</sup>, D. Sala<sup>3</sup>, E. Limido<sup>3</sup>

<sup>1</sup>ASST-Lariana Como-Lombardia-Ospedale S. Antonio Abate Cantù, Ufficio Epidemiologico (CO); <sup>2</sup>ASST-Lariana Como-Lombardia-Ospedale S. Antonio Abate Cantù, Direzione Medica di Presidio (CO); <sup>3</sup>ASST-Lariana Como-Lombardia-Ospedale S. Antonio Abate Cantù, U.O. Medicina Generale (CO); <sup>4</sup>ASST-Lariana Como-Lombardia-Ospedale S. Anna, U.O. Semplice di Microbiologia (CO), Italy

Un sistema efficiente di notifica dei microrganismi sentinella e il loro monitoraggio favorisce strategie di controllo più mirate ed efficaci nei confronti delle Infezioni Correlate all'Assistenza con lo scopo finale di ridurle. L'attivazione di un servizio di Clinical-Microbiological Alert consente una sorveglianza microbiologica con raccolta di dati clinici e si propone di definire l'impatto della diffusione di germi multi resistenti nel nostro Ospedale. Il monitoraggio di specifici microrganismi sentinella (*Staphylococcus aureus* meticillino resistenti, *Staphylococcus aureus* resistenti alla vancomicina (VRE), *Enterococcus faecalis* e *faecium* VRE, *Escherichia coli* resistente alle cefalosporine di III generazione, *Klebsiella pneumoniae* e *Acinetobacter baumannii* resistenti a carbapenemi, *Pseudomonas aeruginosa* resistente a cefalosporine di III generazione, *Clostridium difficile*, *Legionella pneumophila*) permette inoltre di evidenziare cluster epidemici e monitorare l'antibiotico-resistenza relativa a specifici ceppi batterici. I dati del nostro reparto, biennio 2015-2016, hanno evidenziato un incremento nel 2016 dei microrganismi sentinella isolati, incremento degli MDR e una correlazione tra IVU nosocomiali e posizionamento di cateteri vescicali. Emerge il problema delle infezioni legate all'assistenza, ormai rischio collaterale intrinseco al processo di cura che diventa estremamente preoccupante perché possibile spia di un gap organizzativo, quando più casi potenzialmente prevenibili e con fonte comune si verificano nella stessa area assistenziale.

### Un decorso shockante

R. Buso<sup>1</sup>, M. Leoni<sup>1</sup>, M. Rattazzi<sup>1</sup>, P. Pauletto<sup>1</sup>

<sup>1</sup>Cà Foncello, Dipartimento di Medicina Interna, 1<sup>a</sup> Medicina, Treviso, Italy

**Presentazione del caso:** Presentiamo il caso di un uomo di 56 anni, senza precedenti di rilievo, ricoverato per astenia profusa, vomito, iporexia e dispnea. All'ingresso si presentava astenico, ipoteso (PA 100/60 mmHg) polipnoico in aria ambiente (FR 30/min) e tachicardico (FC 130 bpm). Agli esami biochimici era presente grave acidosi lattica (lac 10.1 mmol/l), modesta leucocitosi (GB 11.730/mm<sup>3</sup>) e lieve insufficienza renale (VFG 62

mg/min). I rimanenti esami ematochimici risultavano normali e all'ECG era presente tachicardia sinusale. Eseguiva un ecocardiogramma che risultava nei limiti (FE 54%). Nella notte rapido peggioramento delle condizioni cliniche con grave ipotensione (70/40 mmHg) per cui veniva trasferito in Terapia Intensiva per sospetta sepsi. Avviata terapia con amine ad alto dosaggio senza beneficio. Lo screening tossicologico e microbiologico risultava negativo. Gli ecocardiogrammi seriati eseguiti nelle ore successive mostravano un rapido e progressivo deterioramento della funzione ventricolare destra in assenza di embolia polmonare. Dopo un episodio di fibrillazione atriale il paziente peggiorava ulteriormente fino al decesso avvenuto 48 ore dopo l'accesso in PS. Il riscontro autoptico mostrava un quadro di miocardite acuta fulminante del ventricolo destro.

**Conclusioni:** La miocardite è una patologia infiammatoria del miocardio causata da molteplici fattori eziologici. Usualmente coinvolge il cuore in toto o il ventricolo sinistro causandone la disfunzione progressiva. Il coinvolgimento del solo ventricolo destro è un'eventualità rara da considerare in caso di disfunzione ventricolare destra progressiva non altrimenti spiegata.

### Hepatitis flare in hepatic steatosis, during Legionnaires' disease

M. Caimi<sup>1</sup>, M.G. Giovagnoni<sup>1</sup>, M. Ciofetti<sup>1</sup>, P. Trombini<sup>1</sup>, C. Sgorbati<sup>1</sup>, M. Gabrione<sup>1</sup>

<sup>1</sup>ASST Nord Milano, UOC Medicina Interna, Sesto San Giovanni (MI), Italy

We describe the case of a middle age Italian man affected to steatosis with hepatitis flare during Legionnaires' disease. This bacterium infects the lungs but can also register hepatic involvement; in the literature the authors usually describe little flare lower than 20 times normal value (nv). He was admitted to emergency room with thoracic pain, fever and cough. We performed a chest ray with detection of pneumonia to upper right lobe. The *Legionella* urinary antigen test was positive. At the admission transaminase levels were 10 times nv and the patient declared an alcohol intake exceeding 80 g/daily. He further stated that it had been a long time since last check of hepatology. We hospitalized the patient and we started antibiotics regimen with levofloxacin associated with oxygen therapy and hydration. During the recovery we observed two hepatitis flares (50 times nv) without sign or symptoms of HAV, HBV and HCV infection. The others hepatotropic viruses was excluded by serological tests, as well as vascular complication (portal vein thrombosis, hepatic artery ischemia), hepatic abscess or masses by CT scan. At the us scan we confirmed an elevated grade of Hepatic Steatosis and the patient started diet low in animal fats, low glycemic index, without alcohol. Despite recovery of the Legionella infection, and despite being of the patient, we registered persistent hepatitis flare, that induce to prescribe UDCA 300 mg twice daily with a good performance. Now patient feel good and he has promised improvement of lifestyle.

### Beri-Beri in a patient with lack of appetite

M. Calabria<sup>1</sup>, C. Pintaudi<sup>1</sup>, S. Giancotti<sup>1</sup>, V. Emanuele<sup>2</sup>, I. Felicetta<sup>3</sup>, A. Rotundo<sup>3</sup>, R. Cimino<sup>4</sup>

<sup>1</sup>S.O.C. Medicina Interna, AOPC Catanzaro; <sup>2</sup>Cardiologia, UMG Catanzaro; <sup>3</sup>I.P.S.O.C. Medicina Intern,a AOPC Catanzaro; <sup>4</sup>DIR S.O.C. Medicina Interna, AOPC Catanzaro, Italy

**Background:** Thiamine deficiency occurs in patients with a thiamine poor diet (due to anorexia, malabsorption), but also in alcoholics and increased energy requirements.

**Clinical case:** 59 years old woman, hospitalized for abdominal pain, nausea, retched, lack of appetite, weight loss, asthenia since 2 months. Previous diagnosis of depression. No drug at home. No smoke, no alcohol. Clinical features in Hospital: depression, abdominal pain. Laboratory and radiology tests (glycaemia, lipid profile, kidney and liver markers functionality, haemochrom, Na, K, Ca, Fe, ferritin, transferrin, Rx and US of abdomen, EGDS, colonoscopy) were normal except Hb 8,9g/dl, ferritin 758ng/ml. Despite to con Metoclopramide and Ondansetron administration: retched worsened; chest pain (with ECG and cardiac enzymes negative) and parenthesis, confabulations, anterograde amnesia appeared. Patient under-

went to cerebral TC (chronic cerebral vascular disease) and cerebral RM (negative). Then, parenteral nutrition was introduced and after it neurological symptoms worsened. Patient underwent to cerebral RM control that resulted positive for Wernicke Encephalopathy. Introduced empirical Thiamine therapy, all symptoms disappeared. It was made diagnosis of Beriberi. Long lack of appetite, due to chronic cerebral vascular disease, caused Thiamine deficiency and refeeding worsened it and symptoms referred by patient.

**Conclusions:** Very complex clinical case can be caused by vitamin deficiencies.

### Acquired hemophilia

E. Calò<sup>1</sup>, F. Parente<sup>1</sup>, A. Mazzotta<sup>1</sup>, V. Buonuomo<sup>1</sup>, A. Valiani<sup>1</sup>, G. Metrangolo<sup>1</sup>, A. Fiorentino<sup>1</sup>, G. Castrignanò<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "Vito Fazzi", Lecce, Italy

**Premise and Purpose of the study:** The acquired haemophilia is a rare bleeding disorder characterized by antibodies against factor VIII with clotting deficiency and elongation of PTT. It's characterized by the appearance of bleeding involving more skin, soft tissues, muscles and mucous membranes. Gastrointestinal and urinary tract can be involved with high mortality risk (8-22%).

**Materials and Methods:** Female, 85 y.o., with severe anemia and large hematoma right arm and leg, no previous trauma; previous year she underwent influenza vaccine with low reaction and she did influenza vaccine few days before with a large limb edema. A doppler us excluded the suspected deep vein thrombosis in lower limbs. Blood tests showed Hb 6,3 R.B.C. 2.249.000, HCT 18,8, PT 113%, PTT 79,6, factor VIII 1.8% and inhibitor of factor VIII 1.73. Markers of collagen and neoplastic disease were negative. Because of reducing of vision and hearing, the patient underwent CT-scan that proves lacunar ischemic outcome in the left caudate nucleus, dilated ventricular system with dilatation of the subarachnoid space.

**Results:** The patient underwent a trasfusione of packed RBC, antibiotic therapy and Prednisone 60mg daily ev, gradually replaced with oral therapy reducing the dosage without new haemorrhagic manifestations.

**Conclusions:** Hematoma in a patient who has never previously suffered from bleeding disorders, with history of influenza vaccine, with Blood tests showing the reduce of factor VIII and the increase of specific inhibitors of factor VIII should rise the suspicion that it may be acquired haemophilia.

### Sweet's syndrome: a spectrum of unusual clinical presentations

S.L. Calvisi<sup>1</sup>, M.I. Borrotzu<sup>1</sup>, G. Caddeo<sup>1</sup>, S. Cambule<sup>1</sup>, A. Fancello<sup>1</sup>, G. Gregu<sup>1</sup>, R.M. Patteri<sup>1</sup>, C. Porcu<sup>1</sup>, M.F. Pruneddu<sup>1</sup>, G. Sale<sup>1</sup>, C. Satta<sup>1</sup>, F. Arcadu<sup>1</sup>

<sup>1</sup>UO Medicina, Ospedale San Francesco, Nuoro, Italy

Sweet's syndrome (SS) is the prototypic acute febrile neutrophilic dermatosis characterized by a multifactorial pathogenesis, unique histopathological findings and several clinical variants. It has been classified as classical SS usually associated with various infections, drug-induced SS, malignancies linked SS. We present the case of a 41 years old woman hospitalized for an abrupt onset of painful erythematous plaques (upper and lower extremities, head and neck), associated with pyrexia, arthralgias and myalgias, oral ulcers, iridocyclitis, pericarditis, laboratory findings consisting with elevated erythrocyte sedimentation rate, positive C-reactive protein, neutrophilic leukocytosis, anemia, abnormal renal function, and preceded by an upper respiratory tract infection. Several investigations were performed in order to exclude active cancer, inflammatory bowel diseases, pregnancy, autoimmune diseases. Finally, a skin biopsy was acquired and sent to pathology. It showed a diffuse infiltrate of mature neutrophils in the upper dermis without evidence of leukocytoclastic vasculitis, that confirmed the diagnosis. A systemic corticosteroid therapy was started with 1 mg/kg/day of prednisone in a single oral morning dose. SS, though rare and with a constellation of clinical symptoms, is an important diagnosis to be recognized. In our case mucosal involvement, pericarditis and ocular lesions were uncommon manifestations in classical SS and prompted the clinicians to consider

differential diagnosis including Behçet disease, Erytema nodosum, Rheumatoid arthritis, Sarcoidosis, Lupus erythematosus.

### Two cases of Still's disease adult onset

S.L. Calvisi<sup>1</sup>, M.I. Borrotzu<sup>1</sup>, G. Caddeo<sup>1</sup>, S. Cambule<sup>1</sup>, A. Fancello<sup>1</sup>, G. Gregu<sup>1</sup>, R.M. Patteri<sup>1</sup>, C. Porcu<sup>1</sup>, M.F. Pruneddu<sup>1</sup>, G. Sale<sup>1</sup>, C. Satta<sup>1</sup>, F. Arcadu<sup>1</sup>

<sup>1</sup>UO Medicina, Ospedale San Francesco, Nuoro, Italy

Adult-onset Still's disease (AOSD) is a rare systemic autoinflammatory disorder of unknown aetiology and pathogenesis. The main features include high spiking fever, arthralgia or arthritis, evanescent skin rash, sore throat, hepatosplenomegaly, leukocytosis with neutrophilia, elevated liver enzymes and ESR, hyperferritinemia. Diagnosis is difficult and usually delayed. According to the clinical course, AOSD is divided into three patterns: monocyclic, intermittent or polycyclic and chronic. We describe two different cases of AOSD presenting heterogeneous clinical manifestations and requiring different treatments. The first one reported an history of sore throat, intermittent fever, maculo-papular rash, polyarthritis, seronegative leukocytosis, hyperferritinemia that completely resolved within six months after a single cycle of corticosteroids. On the contrary, the second one, presented a several months history of pyrexia and generalized lymphadenopathy, hepatosplenomegaly, atypical cutaneous rash, oligoarthritis, negative ANA/antiCCP and RF, elevated ESR and RCP. At first, we used an oral steroid therapy, then we switched to DMARD'S (Methotrexate) because of continuous disease flares, finally reaching a complete remission lasting to 1 year. AOSD still represent a diagnostic dilemma for physicians, presenting a combination of nonspecific symptoms that can be caused by various diseases. Early diagnosis and treatment can prevent complications and lead to a favorable prognosis.

### An unusual case of heart failure

S. Cambule<sup>1</sup>, M.I. Borrotzu<sup>1</sup>, S.L. Calvisi<sup>1</sup>, A.R. Fancello<sup>1</sup>, G. Gregu<sup>1</sup>, R.M. Patteri<sup>1</sup>, C. Porcu<sup>1</sup>, M. Pruneddu<sup>1</sup>, G. Sale<sup>1</sup>, C. Satta<sup>1</sup>, F. Arcadu<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale San Francesco, Nuoro, Italy

This case report concerns AL amyloidosis, a rapid progressive disease with a polymorphic clinical presentation. Cardiac involvement is present up to 50% of patients with light chain amyloidosis and it warrants a worse prognosis. A 59-years old woman came to our hospital with signs and symptoms of acute heart failure after 1 month history of progressive breathlessness. For about 6 months she also was symptomatic for dyspepsia, post-prandial abdominal pain and hyporexia with a weight loss of about 15 kg. In her clinical history it is reported hospitalization 6 months before for subacute cholecystitis. Initial blood data showed severely elevated pro-B-type natriuretic peptide, significant increase in the indices of liver cholestasis, markedly raise in gamma-globulin and mild renal failure with proteinuria. Transthoracic echocardiography revealed concentric left ventricular hypertrophy with a restrictive diastolic filling pattern. An abdominal ultrasound showed marked hepatomegaly and splenomegaly in the absence of ascites and focal liver lesions. Laboratory test excluded a viral or autoimmune genesis of the hepatopathy. In order to exclude a storage disease, a liver biopsy was performed. The histological examination showed amyloid deposits. Serum protein immuno-electrophoresis and serum immunofixation did not reveal M-protein while urinary immunofixation was positive for immunoglobulin  $\lambda$ -chain. A bone marrow biopsy showed interstitial plasmocytosis with expression of  $\lambda$  light chain immunoglobulin and led us to make the final diagnosis of type AL amyloidosis.

### Depression and chronic obstructive bronchitis in elderly outpatients

T. Candiani<sup>1</sup>, S. Vernocchi<sup>1</sup>, G. Alessandro<sup>1</sup>, C. Schena<sup>1</sup>, C. Nespoli<sup>2</sup>

<sup>1</sup>Internal Medicine Unit, Hospital Cuggiono, ASST Ovest Milanese, Milano; <sup>2</sup>LIUC, Castellanza (VA), Italy

As it is known in recent years the problem of depression in the elderly is growing, on the one hand the increase in the elderly population and on the other the appearance and / or persistence of

chronic conditions often disabling that interfere with mood such as COPD (ill. preventable and treatable characterized by a chronic obstruction to the air flow in the intrathoracic airways. the presence of an FEV1 / FVC ratio of less than 0.70, demonstrated by spirometry performed after administration of a bronchodilator, is necessary criterion to confirm the clinical diagnosis of the disease). The aim of this study was to verify a possible correlation between low mood and COPD in ambulatory elderly subjects.

**Methods:** From October 2016 to February 2017 we submitted the Geriatric Depression Scale - J. Yesavage (one of the most popular scales for evaluation of depressive symptoms in the elderly, the instrument consists of 30 items which excludes the detection of somatic symptoms and psychotic symptoms, the answers are reciprocating (yes / no), the score ranges from 0 to 30 with a threshold level to 11 place, beyond which are clinically relevant depressive symptoms) to 77 elderly subjects (33F - 44M) with age average of 76 related to the clinic of Pneumology simultaneously undergo spirometry.

**Results:** Our data in line with other studies shows no correlation between depression severity and severity of obstructive, other parameters considered such as sex, BMI and FVC showed no correlations.

### Arnold-Chiari syndrome: case report

T. Candiani<sup>1</sup>, S. Vernocchi<sup>1</sup>, F. Deantoni<sup>1</sup>, G. Alessandro<sup>1</sup>, O. Grassi<sup>1</sup>, R. Padalino<sup>1</sup>, C. Ternavasio<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, Hospital Cuggiono, ASST Ovest Milanese, Milano, Italy

According to the recent data of the international literature, for Arnold-Chiari malformation meaning, the complex of symptoms caused by Chiari malformation, which includes a diverse group of anomalies of posterior fossa structures, which have in common the herniation of the tonsils cerebellum through the foramen magnum. Patient of 53 years, male, former smoker, occasional alcohol, 2 sons, one disabled, work: assistant cook. AF:nil. From October 2015, presented with spinal pain radiating to the lower limbs, performed a spinal MRI L-S- with evidence of reversing hint L2-L3 with wide ranging disc protrusion section. Performed MRI brain-trunk in December 2016 (initially unavailable) and subsequent hospitalization in German hospital for appearance of pains in the head, double vision, dizziness when changing position. The patient dismissed himself. He presented to our A & E for appearance of strabismus, abdominal pain and worsening of pain. There were blood and instrumentals performed which were okay. Evaluated by a neurologist who advised execution of SSPE which were negative, evaluated by a specialist in infectious diseases and pain therapy with subsequent admission to our unit. Not convinced we asked to view MRI brain-trunk performed by external sources which highlighted in particular, a location lower than under the right cerebellar tonsil outcropping to the foramen magnum. We repeated neurological examination and arrived at the diagnosis of Arnold Chiari I.

### Proposal for a case manager in adherence to therapy and prescriptions in patients with severe sleep disorders undergoing polysomnographic study

T. Candiani<sup>1</sup>, A. Aceranti<sup>2</sup>, S. Vernocchi<sup>2</sup>, M. Gimelli<sup>3</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale di Cuggiono, ASST Ovest Milanese; <sup>2</sup>Istituto Europeo di Scienze Forensi e Biomediche, Varese; <sup>3</sup>Università eCampus, Novedrate (CO), Italy

**Razionale:** Polysomnography is a study easy to perform, reliable and non-invasive that allows to investigate at your location, muscle, heart, respiratory and autonomic that occur during sleep. Sleep disturbances are not easy to identify without instrumental investigations, nor the repercussions on the apparatus are not easily traceable to the alteration of sleep.

**Material and Methods:** From January 2012 to December 2015 at the Medicine III of Cuggiono Hospital were examined 68 patients of different ages and gender, aged 22 to 78 years, average 56, including 50 men and 18 women, the patients BMI is between 29 and 40. All united by a problem of snoring and choking with sudden awakenings. We propose also Epworth sleepness Scale. **Results:** Out of 68 patients analyzed, only 55 completed the test

in full, and 5 have not even accepted the report. The values of the scale of Epworth were above 16 in all patients who completed the test. The patients were contacted by telephone by the nurse, after 6 months following the polysomnography and only 13 were willing to answer telephone interview. These 13 patients were correctly filled out the questionnaire, withdrew the report, completed all the planned investigations. Our proposal to improve adherence to therapy and recommendations is to introduce a Case Manager who will take care of each individual patient, keeping in touch, making sure of the understanding of the proposed indications to facilitate themselves and their families, for greater efficiency of care.

### Respiratory complications to dialysis treatment

T. Candiani<sup>1</sup>, A. Aceranti<sup>2</sup>, G. Chiarelli<sup>3</sup>, S. Vernocchi<sup>2</sup>, O. Grassi<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Medicina Interna, Cuggiono (MI); <sup>2</sup>Istituto Europeo di Scienze Forensi e Biomediche, Vaese; <sup>3</sup>Università eCampus, Novedrate (CO), Italy

**Rationale:** The dialysis is the treatment that allows the extracorporeal blood purification for pcs with CKD terminal, It is burdened by numerous complications. Having introduced rigid control protocols from January 1 to December 31, 2016 at the Center Hospital dialysis time Pausanias. We follow 44 dialysis patients, and verified the incidence of complications identified by the operating protocols of the center. In particular, we focused on respiratory complications groped for an improvement.

**Results:** 6 39 complications including seizures, 14 pyrogenic crisis including 2 sepsis. air embolism: 0 cases. The monitors security systems guarantee high operating standards. circulatory overload (SCC): in 5 circumstances were needed emergency dialysis for the EPA onset. In three cases there was an association of pulmonary infection and SCC. Pneumonia: 11 episodes of patient short of breath, of which one death from pneumonia associated with severe condition of SCC. Allergic asthma attacks: 3 patients had the need to change film; in two cases it was sufficient to pass modified cellulosic membranes, while in a case the persistence of the clinical picture has necessitated the use of a PMMA membrane.

**Conclusions:** these episodes are of sentinel events that highlight the need for proper protocols for the management of the dry weight of the patient, performing as a routine screening Eco Pulmonary, more sensitive X-ray examination, to be combined with other previously estimated parameters, in order to arrive at a more complete view of the state of hydration of the patient.

### Identikit of patient with agenesis of the inferior vena cava: description of 14 patients and review of the literature

F. Cannavacciuolo<sup>1</sup>, A. Tufano<sup>2</sup>, A. Gianno<sup>2</sup>, S. Mangiacapra<sup>1</sup>, M. Amitrano<sup>1</sup>

<sup>1</sup>UOS Angiologia, Dipartimento Medicina Interna e Specialistica, AORN G. Moscati, Avellino; <sup>2</sup>Dipartimento di Clinica Medica e Chirurgica, Università Federico II, Napoli, Italy

**Premise and Purpose of the study:** The agenesis of the inferior vena cava (AIVC) is a rare vascular abnormality whose prevalence is 0.0005-1% in the general population. This condition is found in almost 5% of young patients (under 30 years) with proximal, typically bilateral, deep venous thrombosis (DVT) of the lower limbs, often in the absence of apparent risk factors. However, the presence of AIVC in young patients with DVT is probably underestimated because AIVC cannot be detected by the standard DVT diagnostic workup, compression ultrasonography (CUS) or color-duplex venous US.

**Materials and Methods:** We described the clinical, radiological and laboratory characteristics of 14 young patients (2 Women and 12 Men, mean age at first DVT event: 27.8±10.1 years), with color-duplex US confirmed AIVC associated DVT. Abdominal CT-scan was performed to confirm the IVCA diagnosis in all patients.

**Results:** Common features were: mainly male patients, mainly proximal DVT events and not complicated by Pulmonary Embolism (PE). We did not notice any precipitating factor in 10 cases. The majority of patients (13/14) were treated with long-term oral anticoagulant therapy (OAT), and elastic stockings (ES).

**Conclusions:** The AIVC is emerging as a significant factor that con-

tributes to the development of DVT in healthy subjects, especially in young adults. In our experience and findings in the literature, we traced an identikit of the patient with DVT from AIVC, outlining the main features.

### In hospital mortality and diabetes: absence of association

D. Cannistraro<sup>1</sup>, F. Cei<sup>1</sup>, M. Cei<sup>1</sup>

<sup>1</sup>P.O. Bassa Val di Cecina (LI), Italy

**Background:** Diabetes and hyperglycemia are commonly considered in-hospital mortality determinants, as shown by retrospective studies. However, in our practice we found these results are not easily generalizable. In a previous study, we validated a slightly modified comorbidity score (the Modified Walter Score, or the MoWS) to predict in-hospital mortality of unselected medical patients.

**Methods:** We subsequently analysed the 1004 patients of the original MoWS study, by defining four groups: discharged non-diabetics, discharged diabetics, deceased non-diabetics, deceased diabetics. Primary outcome was in-hospital mortality.

**Results:** MoWS did not significantly differ between diabetics (178) and non-diabetics (826), between discharged diabetics (98) and non-diabetics (728), and between deceased diabetics (18) and non-diabetics (98); on the contrary, MoWS strongly discriminate between non-diabetics discharged (m=4, IQR=1-7) and died (m=8, IQR=7-9, P<0,0001), and between diabetics discharged (m=4, IQR 2-7) and died (m=8, IQR 7-9, P<0,0001).

**Conclusions:** To explain our results, we could speculate that - in respect to older studies - diabetes is not more a risk factor for in-hospital mortality, since nowadays insulin analogues have largely replaced human insulins and sliding scales were abandoned, thus reducing the incidence of hypoglycemia.

### Hyponatremia with Herpes Simplex encephalitis

S. Caponigro<sup>1</sup>, S. Ziyada<sup>2</sup>, A. Lopardo<sup>1</sup>, M. Sando<sup>2</sup>, G. Coccia<sup>2</sup>, P. Loizos<sup>1</sup>, G. Vairo<sup>2</sup>, A. Fierro<sup>2</sup>

<sup>1</sup>Family Physician Asl Roma 2, Rome; <sup>2</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome, Italy

**Introduction:** Hyponatremia is defined as a serum sodium level of less than 135 mEq/L. It is the most common disorder of body fluid and electrolyte balance encountered, figuring in 15-20% of emergency hospital admissions. Patient with hyponatremia are frequently asymptomatic. Symptoms appear when the plasma sodium level drops below 120mEq/l. In severe hyponatremia, neurologic and gastrointestinal symptoms predominate and can lead to significant rates of morbidity and mortality.

**Case report:** A 66-years-old man presented to the emergency department with a few days of dyspnea, confusional state, and aphasia in absence of fever. Laboratory examinations showed neutrophilia, lymphocytopenia and significant hyponatremia (115mEq/L). cerebral CT was negative. During the correction of hyponatremia, the patient had a seizure and Due to Suspected Central pontine myelinolysis MRI was performed and Showed bilateral diffuse encephalopathy Involving Mainly the hippocampus mesial temporal regions. The diagnosis of Herpes Simplex virus encephalitis was confirmed by laboratory testing and cerebrospinal fluid PCR.

**Discussion:** Viral encephalitis are sometimes insidious and although typically presenting as acute encephalitis, can present more gradual behavioral and mental status changes, with frequent exacerbations. Hyponatremia can coexist and represents a confounding factor. In our patient, hyponatremia induced by inappropriate and excessive production of ADH due to destructive lesions in those regions of the brain comprising the limbic system.

### La revisione tra pari in area medica: primo passo verso l'adozione condivisa del percorso diagnostico-terapeutico assistenziale dello scompenso cardiocircolatorio

A. Cappelli<sup>1</sup>, P. Barletta<sup>2</sup>, A. Galassi<sup>3</sup>, G. Pavone<sup>4</sup>, M. Quatrana<sup>5</sup>

<sup>1</sup>UOC Medicina Acuti, Ospedale S. Eugenio, ASL Roma 2; <sup>2</sup>UOC Medicina d'Urgenza, Ospedale S. Eugenio, ASL Roma 2; <sup>3</sup>UOC Medicina Acuti, Ospedale S. Eugenio, ASL Roma 2; <sup>4</sup>UOC Medicina Acuti, Ospedale S.

Eugenio ASL Roma 2; <sup>5</sup>UOC Geriatria, Ospedale S. Eugenio, ASL Roma 2, Italy

**Introduzione:** Su input della direzione aziendale nel 2015 nel nostro Ospedale, è stato creato un gruppo di lavoro per redigere linee guida aziendali sul PTDA la gestione intraospedaliera dello scompenso cardiaco. Il gruppo di lavoro era costituito da un rappresentante delle 5 UUOCC di area medica.

**Metodi:** Rilettura collegiale delle linee guida nazionali ed internazionali. Sintesi tramite flow-chart. Revisione critica tra pari delle cartelle chiuse con i DRG428.0.0 ->428.9 nel periodo 1/1-30/04/2015 mediante quesiti stilati sulle linee guida al fine di evidenziare il gap tra la pratica clinica corrente e la best practice. I quesiti riguardavano questi items: anamnesi, E.O., diagnosi strumentale, appropriatezza prescrittiva, criteri di dimissibilità e lettera di dimissione.

**Risultati:** Sono state revisionate 23 cartelle. Gli items più deficitari sono stati: la stesura dell'anamnesi e dell'E.O., l'appropriatezza prescrittiva e la lettera di dimissione; la diagnosi strumentale ed i criteri di dimissibilità hanno maggiormente rispettato la best practice.

**Conclusioni:** Esperienza di gruppo di lavoro. Sperimentazione della metodologia revisione tra pari con il mero intento di fotografare la pratica clinica, di condividere le criticità e individuare eventuali interventi correttivi. In questo lavoro è emerso come nella pratica clinica si è impoverito il rigore metodologico nella stesura dell'anamnesi e dello E.O., è necessario migliorare nella prescrizione farmacologica e nella stesura della lettera di dimissione. Il percorso diagnostico ed il rispetto dei criteri di dimissibilità sono stati sufficientemente conformi alle linee guida.

### Not a simple pneumonia: think about leptospirosis!

M. Caprioli<sup>1</sup>, S. Grazioli<sup>1</sup>, M. Ghersetti<sup>1</sup>, E. Garlati Costa<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone, Italy

**Introduction:** Leptospirosis is a zoonosis with wide manifestations including subclinical infection, jaundice, acute renal failure and potentially lethal pulmonary disease.

**Case report:** A 65-years old man was admitted to Emergency Room with severe right upper abdominal pain and fever. Anamnestic data revealed that he had cut the grass few days ago. At physical examination he was jaundiced and the abdomen was tenderness in right hypocondrium. The laboratory test showed: WBC 7.43/mmc, Hb 11.7 g/dl, PLT 59000/mmc, creatinine 2.00 mg/dl, ALT 524 U/l, Bilirubin 4.5 g/dl (direct 3.5 mg/dl), PCT 2.79 mcg/l, INR 1.09, aPTT 24.0 sec Fibrinogen 1081 mg/dl. At urine examination we found hematuria. Chest X-ray revealed an opacity in right lower zone and chest CT showed diffuse airspace disease involving all lobes. He was intubated for acute distress syndrome. Treatment with parenteral nutrition and piperacillin-tazobactam (18 g/die ev i.c.) were started. IgM antibodies for leptospirosis were positive. A prompt clinical/biochemical response to antibiotic treatment/hydration was noticed. Then, the patient was extubated and he was discharged with complete recovery.

**Discussion:** In leptospirosis, 20-70% of cases can be characterized by predominant respiratory symptoms ranging from cough to acute respiratory distress syndrome. Pulmonary hemorrhagic leptospirosis is a very rare and severe form of infection and it is associated with a fatality rate >50%. In the management, there is a controversy about the best antibiotic therapy but penicillin, tetracycline and doxycycline are preferred.

### New direct oral anticoagulants: a need for a tailored therapy?

M. Carafa<sup>1</sup>, P. Morella<sup>1</sup>, G. Ferro<sup>2</sup>, M. Sacco<sup>1</sup>, G. Bosso<sup>2</sup>

<sup>1</sup>UO Medicina d'Urgenza, AORN Cardarelli, Napoli; <sup>2</sup>UO PS/OBI AORN Cardarelli, Napoli, Italy

**Case presentation:** S.C.L man, 60 years old, comes to the ER for onset of wheezing about a week after surgery for implantation of the prosthesis on his left knee. CT pulmonary angiography shows bilateral pulmonary embolism. The patient begins Rivaroxaban 20

mg OD. He is discharged with resolution of PE. In the course of therapy the patient has a new PE episode. For this reason, it is required a genetic screening for thrombophilia and we switch therapy to apixaban 5 mg BID. The patient has a further recurrence of TEP and moreover thrombophilia screening shows a heterozygous mutation for the prothrombin. At this point we try therapy with dabigatran 150 mg BID. The patient at 3 months is free from relapses.

**Discussion:** Recurrences under rivaroxaban and apixaban therapy may be explained by the genetic defect concerning the prothrombin probably only uncovered by surgery. The evidence that Xa factor inhibitors have failed and that the Dabigatran, direct thrombin inhibitor, has shown effectiveness could be a direct consequence of the specific genetic defect.

**Conclusions:** It can be assumed that the inhibition of factor Xa, an upstream of the coagulation cascade, have no effect for the possible existence of other unknown pathways of prothrombin to thrombin conversion, on the other side the direct inhibition of thrombin, downstream of the coagulation cascade, would explain the efficacy of dabigatran. In the future it will be increasingly important to choose the specific DOAC according to the specific characteristics of each patient and develop a so-called tailored therapy.

### Un caso insolito di meningite

A. Carbone<sup>1</sup>, M. Malerba<sup>1</sup>, M. Amato<sup>1</sup>, F. Agnelli<sup>1</sup>, F. Colombo<sup>1</sup>

<sup>1</sup>Dipartimento Medico Polispecialistico, A.O. Ospedale Niguarda Ca' Granda, Milano, Italy

Presentiamo il caso della signora V.G, 81 anni, condotta in PS per la comparsa di afasia improvvisa, stato confusionale ed affaccendamento. In APR pregressa mastectomia dx, pregresso ictus cerebri senza reliquati ed ipertensione arteriosa, in terapia con ACE-I e calcio-antagonista. In PS sottoposta a TAC cerebri che evidenziava la presenza di esiti ischemici in sede talamica anteriore bilaterale ed opacamento subtotale delle cellette mastoidee di destra, di significato infiammatorio. Agli esami ematochimici leucocitosi (GB 14600) ed aumento degli indici di flogosi (PCR 19); all'ECG ritmo sinusale. Valutazione neurologica: diagnosi di verosimile ictus ischemico. Praticata terapia con flectadol e ceftriaxone, indi ricoverata. All'ingresso paziente vigile, eseguiva ordini semplici, capo e sguardo deviati verso destra, sfumata emisindrome dx con plegia arto sup dx, al torace qualche ronco come da secrezioni delle alte vie aeree. Il giorno successivo peggioramento dello stato di coscienza e persistenza di emisindrome dx, agli esami di laboratorio aumento degli indici di flogosi (PCR 30, GB 18000) e riscontro di Ag urinario per pneumococco positivo. Veniva ripetuta la TAC cerebri che risultava invariata ed eseguita puntura lombare che confermava la diagnosi di meningite pneumococcica. Potenzata terapia antibiotica con l'aggiunta di ampicillina e terapia steroidea con rapida ripresa dello stato di coscienza. Eseguita biopsia di lesione al rinofaringe che risultava compatibile con localizzazione di linfoma B diffuso a grandi cellule.

### Pylephlebitis and cerebral abscesses due to *Streptococcus mitis* in a patient with diverticulitis

P. Carfagna<sup>1</sup>, R. Caccese<sup>2</sup>, E. Bruno<sup>3</sup>, D. Campagna<sup>4</sup>, P. Placania<sup>5</sup>, R. Hernandez<sup>6</sup>, M. Gaudio<sup>5</sup>

<sup>1</sup>Medicina Interna, AO San Giovanni, Roma; <sup>2</sup>Centro Rianimazione, AO San Giovanni, Roma; <sup>3</sup>Direzione Sanitaria, AO San Giovanni, Roma; <sup>4</sup>Anatomia Patologica, AO San Giovanni, Roma; <sup>5</sup>Patologia Clinica, AO San Giovanni, Roma; <sup>6</sup>Neurochirurgia, AO San Giovanni, Roma, Italy

**Introduction:** Diverticulosis is a common pathology and peridiverticular abscesses represent the most common intrabdominal infectious complication. Pylephlebitis and cerebral abscess are very rare complications.

**Case report:** On June '16, a 71-year-old man was admitted because of right emiparesis. Recent medical history was consistent with diverticulitis treated with rifaximin and subsequent onset of fever, abdominal pain and weight loss. On admission, a CT scan revealed two cerebral abscess lesions localized in the left frontal lobe and a thrombosis of the main and left portal vein. Patient underwent a surgical procedure with drainage of brain lesions. Purulent material cultured revealed growth of *Streptococcus mitis*.

Patient successfully completed an 8-weeks course of ceftriaxone 2g bid, and cerebral lesions were no longer visible on CT scan. To date, after a cycle of 2-month of rehabilitation, the patient shows an almost complete recovery of emiparesis.

**Discussion:** This is possibly the first report of concomitant pylephlebitis and brain abscesses as complication of diverticulitis. The former results from infectious spread into the portal circulation, the latter from retroperitoneal spread that allow for extra-abdominal spread. *S. mitis* is generally considered a member of the oral and gut commensal flora. Nevertheless, *S. mitis* can cause a range of invasive disease, such as bacteremia and endocarditis. Physicians should keep in mind that patients treated with non-absorbable antibiotics, might have a hematogenous spread of invasive microorganisms starting from diverticulitis.

### Risk factors for candidemia at a tertiary care hospital in Rome

P. Carfagna<sup>1</sup>, R. Caccese<sup>2</sup>, E. Bruno<sup>3</sup>, M. Diamanti<sup>3</sup>, P. Placanica<sup>4</sup>, M.E. Iannone<sup>5</sup>

<sup>1</sup>Medicina Interna, AO San Giovanni, Roma; <sup>2</sup>Centro Rianimazione, AO San Giovanni, Roma; <sup>3</sup>Direzione Sanitaria, AO San Giovanni, Roma; <sup>4</sup>Patologia Clinica, AO San Giovanni, Roma; <sup>5</sup>Farmacia, AO San Giovanni, Roma, Italy

**Introduction:** Candida bloodstream infection is an important cause of morbidity and mortality, especially in frail patients admitted in Internal Medicine wards (IMw). Increased survival in these patients has led to an increased use of central venous catheters (CVC) and peripherally inserted central catheters (PICC). Prompt and appropriate therapy as well as source control are pivotal management measures. We have evaluated the incidence and risk factors of candidemia in a tertiary care hospital in Rome.

**Methods:** All cases of candidemia occurred in 2016 were reviewed.

**Results:** In the study period 52 candidemia occurred in 49 patients (27 M and 27 F), with a median age of 69 years. Candidemia occurred in 25 patients admitted in IMw (48.1%), in 13 in surgical wards (25%), in 8 in ICU (15.4%) and in 4 in hematologic wards (7.7%). *Candida albicans* caused candidemia in 23 pts (44.4%), followed by *C. parapsilosis* 19 (36.5%), *C. glabrata* 7 (13.5%) and *C. tropicalis* 2 (3.8%). Recent or concomitant antibiotic therapy, the presence of a CVC or a PICC and total parenteral nutrition were the most frequent risk factor at the time of candidemia (82.6%, 76.9% and 65.4%, respectively), especially in patients admitted in IMw. Overall mortality was 34.6%, with higher mortality rate in patients in IMw (48%).

**Conclusions:** These results suggest that physicians who care frail patients in IMw, should be more aware of risk factors for candidemia and they have to try to reduce the amendable ones.

### Heart failure survey in an Internal Medicine Department

E. Carmenini<sup>1</sup>, D. Martolini<sup>1</sup>, L. Lenge<sup>1</sup>, C. Santini<sup>1</sup>

<sup>1</sup>Ospedale M.G. Vannini, Roma, Italy

**Aims:** Heart failure (HF) is a leading cause of hospitalization and encompasses a variety of forms: with preserved, reduced or border-line ejection fraction (EF), causes: ischemic, hypertensive, valvular, secondary to infections, anemia, and clinical presentations: acute, chronic, exacerbation of chronic... that can challenge the clinicians in following the published guidelines for diagnosis and treatment. The aim of this study was to analyze the clinical and echocardiographic profile, and treatment on discharge in patients admitted with HF.

**Methods:** We analyzed clinical and echocardiographic features of 38 patient admitted to our department for HF from September to January 2016-17 and the adherence to current guidelines in the discharge therapy.

**Results:** Mean age was 85 years. Patients were more likely to be women (78%) and have EF  $\geq 40$  (80%) although in only 55% echocardiography was performed. A mean of 3 comorbidities was present, hypertension, atrial fibrillation and chronic kidney disease being more represented. Drugs prescribed on discharge were:  $\beta$ blockers 78%; ACE-i/ARBs 70%; furosemide 85%; Mineralocorticoid antagonists 41%. A non cardiac cause of heart failure was

identified in 37% of patients. The median length of hospital stay was 11 days.

**Conclusions:** Patients admitted to Internal Medicine Department for heart failure are rarely similar to those of clinical trials. The primary cause of heart failure is often non-cardiac and many comorbidities are present. It is therefore not always possible to apply the guidelines and therapy should be individualized.

### Drugs addiction, vulnerability and forced migration: a multidisciplinary approach study on psychiatric and medical aspects of old and new dependencies

E. Caroppo<sup>1</sup>, E. Santacroce<sup>2</sup>, S. La Carrubba<sup>3</sup>, P. Albanese<sup>1</sup>

<sup>1</sup>UOC Centro di Salute Mentale, Distretto 4, ASL Roma 2; <sup>2</sup>Igeam Roma; <sup>3</sup>Medicina Interna, AOR Villa Sofia-Cervello, Palermo, Italy

Global migration and the increasing number of migrants to Europe diversify the psychosocial need in the ost psychosocial and health care system. Migrants are a constitute heterogeneous groups depending on as regard their country of emigration, and their legal status. In the European Union, the number of asylum seekers has increased by almost 50% in the third quarter of 2012. Overall, the number of people seeking protection in the EU-28 has reached 177 thousand and, according to the latest Eurostat statistics, these are people who they come from 146 countries all over the world. Syrians, Afghans and Eritreans are the top three nationalities among asylum seekers. Main destinations are Germany, Sweden, Italy, France and U.K., with the highest number of requests (about 70% of all Refugees and asylum seekers have to face a deterioration of their mental health and a high prevalence of risk factors for drugs addiction, including exposure to torture and trauma, loneliness and social deprivation. Complex social phenomena, drug use affects all areas of society, yet not regarding the effects of drug-addiction and addictive behaviors. The use of new psychoactive substances is becoming a habit more and more widespread in the countries of the European community. The rapid spread of such substances across the UE, makes it even more difficult the identification and implementation of appropriate models of prevention, understanding of social dimension, management, recovery and rehabilitation of the addicted subject, reducing social and medical impact of drug offenses.

### Phlegmasia cerulea dolens: a challenging management

A. Casali<sup>1</sup>, M.C. Leone<sup>1</sup>, D. Galimberti<sup>1</sup>, A.M. Pizzini<sup>1</sup>, D. Arioli<sup>1</sup>, A. Muoio<sup>1</sup>, M. Granito<sup>1</sup>, A. Ghirarduzzi<sup>1</sup>

<sup>1</sup>Medicina 2 Cardiovascolare, Centro Emostasi e Trombosi, ASMN Reggio Emilia, Italy

**Aim of the study:** Phlegmasia cerulea dolens (PCD) is the uncommon, fulminant complication of an acute massive venous thrombosis and may lead to venous gangrene unless aggressively treated in the very early stage.

**Materials and Methods:** We describe the case of a healthy 69 y.o. woman who presented with acute dyspnea and an impressive swelling of the whole left leg. On physical examination the leg was also violaceous, very painful and tender up to the inguinal region, leg movements hindered. The D-Dimer was 25027 ng/ml. Chest CT scan showed a bilateral pulmonary embolism, Duplex ultrasound (DUS) an occlusive thrombus extended from the left common iliac to the calf veins. Her only PCD risk factor was a history of malignancy (breast cancer, 2011), which is reported in Literature in one third of PCD cases.

**Results:** The patient was immediately treated with low weight molecular heparin (LWMH) at a dose of 100 U/kg twice a day together with warfarin until an INR range 3-4 was achieved (target 3.5) for two consecutive days, and occlusive bandage. The patient was then discharged; at follow-up seven days later she had a symptomatic improvement and partial recanalization on DUS.

**Conclusions:** PCD is still an uncommon condition with a high amputation and mortality risk. There is no validated algorithm for treatment because of its rarity. The main reported therapeutic options are anticoagulation, venous thrombectomy and catheter-directed thrombolysis. In our case an aggressive anticoagulant approach was successful, although no recently published evidence supports LWMH use.

### Un caso di ascite pluriconcamerata: la difficile diagnosi del tumore ovarico borderline

C. Casati<sup>1</sup>, S. Fruttuoso<sup>1</sup>, M. Fabbri<sup>1</sup>, F. Corradi<sup>1</sup>, A. Torrighiani<sup>1</sup>, L. Burberi<sup>1</sup>, A. Morettini<sup>1</sup>

<sup>1</sup>Medicina Interna OACA 2 Careggi, Firenze, Italy

Donna di 71 anni, giungeva per la comparsa da 2 mesi di incremento volumetrico dell'addome, associato a diarrea e dispepsia. APR: ipertensione e diabete. Pregressa asportazione di fibroma mammario 4 anni prima ed istero-annessiectomia destra 20 anni fa. All'ecodome marcato versamento ascitico addominale, riconoscibili numerose immagini cistiche pluriconcamerate a contenuto corpuscolato. Alla TC torace-addome con mdc: multiple formazioni cistiche del parenchima polmonare ed epatico, abbondante falda di versamento ascitico e lesione cistica pluriconcamerata di circa 30x20 cm occupante tutta la cavità addominale con dislocazione degli altri visceri. Esami ematici nella norma, negativa la ricerca di echinococco, Ameba, Brucella, virus epatici e markers neoplastici. È stato effettuato un prelievo ecoguidato del liquido della lesione cistica (essudato) con negatività sia per cellule tumorali che per echinococco. Eco-TV non dirimente. È stata quindi effettuata una laparoscopia esplorativa con asportazione di una massa ovarica gigante il cui esame istologico è risultato compatibile con "tumore borderline dell'ovaio a prevalente componente mucinosa". I tumori ovarici borderline sono rari (10-20% dei K ovarici). Sono caratterizzati istologicamente da architettura papillare complessa, poche atipie cellulari, lieve aumento dell'attività mitotica e nessuna capacità di invasione stromale. Solitamente unilaterali e con multiloculi all'interno, possono raggiungere le dimensioni >30 cm. La prognosi è solitamente benigna, anche se è possibile la recidiva.

### Single drug approach and switch therapy in patients treated with direct oral anticoagulants for intermediate high risk pulmonary embolism initially admitted to sub-intensive care unit

M. Casella<sup>1</sup>, D. Arioli<sup>2</sup>, M. Calzolari<sup>3</sup>, L. Morini<sup>1</sup>, C.M. Leone<sup>2</sup>, A. Casali<sup>2</sup>, A. Muoio<sup>2</sup>, M. Granito<sup>2</sup>, M. Azzarone<sup>3</sup>, M. Ferri<sup>3</sup>, A.M. Pizzini<sup>2</sup>, A. Ghirarduzzi<sup>2</sup>, G. Tortorella<sup>3</sup>, E.A. Negri<sup>1</sup>

<sup>1</sup>Medicina ad Elevata Intensità di Cura, Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>2</sup>Medicina Cardiovascolare, Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>3</sup>Cardiologia, Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

**Background:** DOACs have been developed to address limitations associated with traditional anticoagulant therapy. In pivotal clinical study two different treatment options were developed: SDA characterized by the start of DOAC with initial high dose within 72 hours from PE diagnosis; ST characterized by the start of DOAC after a course of parenteral therapy lasting at least 5 days.

**Methods:** The aim of our register is to obtain a reliable estimate of the percentage of patients initially admitted to SICU for PE for which DOAC could be started in the first days of hospitalization or after a course of parenteral therapy. Consecutive patients admitted for intermediate high risk PE to the two SICU of our hospital in the last 24 months were retrospectively evaluated. Data regarding severity of index event and Length of Hospital Stay (LOS) were collected.

**Results:** 7 of the 77 patients admitted to SICU died during hospital stay (9.1% mortality). To 55 of the remaining 70 patients (78.6%) DOAC was prescribed: SDA was practicable in 67% of 55 patients treated with DOAC while in the remaining 33% ST was preferred. The mean PESI (Pulmonary Embolism Severity Index) was higher in ST group (116 versus 95) while signs of ventricular dysfunction on an imaging test were present in 72% of both groups. The median LOS resulted shorter in SDA group (6 versus 13 days).

**Conclusions:** For patients admitted to SICU for intermediate high risk PE after an initially favorable evolution SDA and ST are both consistent option in clinical practice: in patients in which SDA was practicable LOS resulted shorter.

### Cryoglobulinemic vasculitis in a patient with calcinosis, Raynaud phenomenon, esophageal dysmotility, sclerodactyly, and telangiectasia syndrome

L. Castelnovo<sup>1</sup>, P. Novati<sup>1</sup>, F. Saccardo<sup>1</sup>, P. Ghiringhelli<sup>1</sup>

<sup>1</sup>UOC di Medicina, Ospedale di Saronno, ASST Valle Olona, Saronno (VA) Italy

**Introduction:** Cryoglobulinemic vasculitis (CV) is a rare entity. Although it has been reported in diffuse systemic sclerosis, it has rarely reported in calcinosis, Raynaud's phenomenon, esophageal dysmotility, sclerodactyly and telangiectasia (CREST) syndrome. We describe a patient with CREST syndrome and CV who did not have typical clinical features of vasculitis so that for a long time it has not been recognized.

**Case description:** We describe a 53-year-old female who developed a CREST syndrome presenting with Raynaud's syndrome, dysphagia and telangiectasias but also severe skin ulcers, long treated with analogue of prostacyclin (PGI), steroids, advanced wound care and skin graft with partial resolution of the lesions. She referred to us in 2016 with 2 severe skin lesions on the left leg. She was positive for serum cryoglobulins and showed signs of glomerulonephritis vasculitis, which led us to start colchicine and reduce steroids. She is still in treatment with PGI. Currently renal function is normal, proteinuria resolved and skin ulcers are almost completely healed.

**Conclusions:** CREST overlapping CV is reported as being characterized by serious vascular events, responsible for poor prognosis; these clinical manifestations suggest synergistic activity of typical microangiopathy scleroderma and vasculitis. Our patient displays the importance of checking for cryoglobulins for directing appropriate treatments that provides for synergistic use of PGI, competitive endothelin-antagonists and immunosuppressants eventually including the most effective drug, rituximab.

### A strange case of fever-induced Brugada syndrome

L. Castelnovo<sup>1</sup>, P. Novati<sup>1</sup>, F. Saccardo<sup>1</sup>, P. Ghiringhelli<sup>1</sup>

<sup>1</sup>UOC di Medicina, Ospedale di Saronno, ASST Valle Olona, Saronno (VA) Italy

**Introduction:** Brugada syndrome (BS) is a channelopathy and a major cause of sudden death in men without structural heart disease. ECG is characterized by persistent ST segment elevation in the right precordial leads unrelated to ischemia, right bundle branch block and rapid polymorphic ventricular tachycardia capable of degeneration into ventricular fibrillation. Several drugs, electrolyte imbalance and fever are recognized inducers.

**Case report:** A 72 year-old male with rheumatoid arthritis (RA) and extra-articular nodules (lung and skin), treated with abatacept and leflunomide, was admitted to Coronary Care Unit for chest pain and ECG revealing saddleback ST segment elevation in V1-V2. Laboratory data showed an increase CRP and procalcitonin levels, not correlated with RA, normal troponin I. He developed fever within 3 days and he referred to us. We used US and MRI to document the presence of an infected bursitis in the left shoulder that has been treated with prolonged antibiotic therapy (vancomycin, linedolid and ciprofloxacin). After about 15 days chest pain and fever disappeared, inflammatory markers normalized and ECG findings resolved.

**Conclusions:** It's known that fever can induce ECG appearance "Brugada-like", even though the mechanism remains unknown. The particularity of this case is that the patient, immunocompromised and with multiple risk factors for infection, has developed the ECG changes before the fever. This case of chest pain in absence of family history of sudden death or personal history of syncope let us to diagnose a "Brugada - like" syndrome.

### Thromboembolic and hemorrhagic risk during chemotherapy programs in a breast cancer and lung plasmacytoma patient

C. Cavalli<sup>1</sup>, M. Torchio<sup>1</sup>, B. Franceschetti<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna; U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

**Background:** Thromboembolic risk in cancer patients (pts) is determined by the balance of treatment (chemotherapy (CT), immunotherapy or hormonal), tumor (tumor site) and pt related risk factors (comorbidities, body weight): multiple scores are able to estimate tumor and therapy risk factors and to recommend

adequate primary prophylaxis. The issue becomes more critical in pts with concomitant bleeding and pro-thrombotic comorbidities.

**Patients and Methods:** We present the case of a 64 year old female, with obesity, dyslipidemia, osteoporotic vertebral collapse, pulmonary plasmacytoma (2006): in 2007 she began CT with thalidomide and dexamethasone, without thromboprophylaxis. After six months of CT, pulmonary thromboembolism occurred: exams documented antiphospholipid syndrome, CT was suspended and pt began warfarin. In 2008 she resumed CT (bortezomib and dexamethasone). After three months she was hospitalized for minor stroke, with negative CT-scan. She continued warfarin alone until 2011 when bilateral subacute subdural hematoma was diagnosed. At hospital discharge pt, receiving enoxaparin (4000 IU), came to our attention: we confirmed enoxaparin, until 2012, when she underwent surgery, adjuvant CT and hormonal therapy for hormonal positive breast cancer: we confirmed enoxaparin 4000 UI.

**Conclusions:** Optimal thromboprophylaxis in cancer pts must be the result of a multidisciplinary assessment able to evaluate thrombotic and hemorrhagic factors, treatment endpoints and quality of life.

### Differential diagnosis of lung lesions in patient with kidney cancer and non Hodgkin's lymphoma: the importance of a multidimensional workflow

C. Cavalli<sup>1</sup>, M. Torchio<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna; U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

Differential diagnosis of pulmonary nodules in patients (pts) with multiple tumors and comorbidities includes an attentive, multidisciplinary diagnostic approach. We present a 58 years-old man, with atrial fibrillation and dilatative cardiomyopathy, affected by humeral right osteolysis and left pleural effusion, with retroperitoneal mass and right kidney lesion. CT-scan and PET documented kidney right lesion, retroperitoneal and thoracic adenopathies. Lymph node biopsy revealed a high grade non-Hodgkin's lymphoma (stage 4), the renal biopsy was positive for kidney carcinoma. After a multidisciplinary discussion, in April 2009, the pt received chemotherapy (six R-CHOP cycles), obtaining a complete clinical response, followed by right nephrectomy for a renal clear cell carcinoma (grading G2, stage pT1N0M0) (January 2010). In May 2011 pt repeated R-CHOP for lymphoma recurrence, successively suspended for enterocutaneous fistula, on a previous appendectomy. In October 2013 pt received bendamustine for a new recurrence, achieving complete clinical remission. In August 2016 CT-scan evidenced new pulmonary nodules with negative PET: due to the concomitant recurrence of the pre-existing fistula we started follow up. In January 2017 CT-scan evidenced new pulmonary and left kidney lesions: PET was positive. We performed a lung biopsy, positive for renal clear cell carcinoma. A correct diagnostic approach requires a multidimensional monitoring in order to successfully identify different tumors especially in case of multiple morbidities that could limit the therapeutic results.

### Very severe hyponatremia: a gender specific iatrogenic disease?

F. Cei<sup>1</sup>, D. Cannistraro<sup>1</sup>, P. Fenu<sup>1</sup>, S. Gori<sup>1</sup>, M. Cei<sup>1</sup>

<sup>1</sup>P.O. Bassa Val di Cecina (LI), Italy

**Background:** Drugs active on the renin-angiotensin system are recommended for arterial hypertension and congestive heart failure. Although the effect of thiazides on sodium balance is well known, the potential for severe hyponatremia induced by all these drugs is frequently overlooked. Aim of the study was to assess the prevalence of treated patients admitted for very severe hyponatremia. Secondary objective was to explore the overall mortality (in-hospital and 90 days).

**Methods:** We enrolled all the patients admitted with serum sodium less than 120 mEq/L between June 2014 and December 2016. We recorded age, gender and the Modified Walter Score (MoWS) for comorbidity status.

**Results:** We enrolled 42 patient; 30 were women (71%), median

(m) age was 84 (interquartile range – IQR – 77-88). 30 were treated with almost one drug, 20 of them were in combination therapy (3 in triple therapy). 7 patients died (17%, 4 in-hospital, 3 in the first 90 days), 6 women and 1 man (odds ratio 2,75). Serum sodium was lower in deceased patients (m 111 vs 116, IQR 109-116 vs 109-119, p=0,01) as MoWS was significantly higher (m 7 vs 5, IQR 5-9 vs 0-8, p=0,01).

**Conclusions:** Very severe hyponatremia is an uncommon but serious disease, with an elevated early-mortality risk especially in fragile women. Impact of drugs active on renin-angiotensin system seems to be important; accurate choose of anti-hypertensive drug is mandatory in these patients.

### Identification of non-wild type microbiological strains in clinical practice: a call to action

F. Cei<sup>1</sup>, R. Castellani<sup>1</sup>, P. Fenu<sup>1</sup>, D. Cannistraro<sup>1</sup>, M. Cei<sup>1</sup>

<sup>1</sup>P.O. Bassa Val di Cecina (LI), Italy

**Background:** The antibiograms usually report MICs as found, accordingly to the EUCAST. Laboratories usually categorize organisms in three classes, i.e., susceptible (S), resistant (R) and intermediate (I). However, some strains of susceptible organism have MICs that sensibly differ from those of wild types (the so called “epidemiological cut-off” or ECOFF). Aim of this study is to quantify this phenomenon for enterobacteriaceae isolated from internal medicine inpatients.

**Methods:** Between January and mid February 2017, all isolates of E. coli (EC), K. pneumoniae (KP), P. mirabilis (PM) and P. aeruginosa (PA) were evaluated. We regarded as “wild type” (WT) those strains who showed the lowest MIC for any tested antibiotic. We categorized as “non-wild type” (NWT) any strain with a MIC higher than the lowest but less than that indicated as intermediate.

**Results:** 79 isolates (11 from blood, 63 from urine and 5 from other sources) were included. 52 were EC, 10 were KP, 8 were PM and 9 were PA. Of 1129 susceptibility tests, 331 were regarded as R, 55 were I and 743 were S; of these, 78 (10.4%) were NWT, especially PA (78%) and PM (16.7%). This phenomenon is more prevalent for beta-lactam antibiotics.

**Conclusions:** Physicians should be aware that a meaningful percentage of S strains are not wild type. This may results in selection of resistant strains when not treated with a full active antibiotic. We propose that laboratories should highlight NWT when reporting an antibiogram with MICs as found.

### A hardly infectious fever

A. Celotti<sup>1</sup>, A. Sattin<sup>1</sup>, G. Binotto<sup>2</sup>, B. Girolami<sup>3</sup>, E. Zola<sup>3</sup>, L. Fabris<sup>3</sup>, G. Baggio<sup>3</sup>, A. Cattelan<sup>1</sup>

<sup>1</sup>Infectious Disease Unit, University Padua Hospital, Padua; <sup>2</sup>Haematology and Immunology Unit, University Padua Hospital, Padua; <sup>3</sup>Internal Medicine Unit, University Padua Hospital, Padua, Italy

A 67 yo man with unremarkable medical history was referred to the ER for a 10 days fever up to 39°C preceded by chill, associated with nausea and vomiting, without other organ-specific symptoms; he reported hyporexia, weight loss and asthenia in the last 2 months. He was hospitalized with a septic presentation resembling a hemophagocytic lymphohistiocytosis; physical examination showed marked splenomegaly; routine blood tests revealed pancytopenia, hyperferritinemia, hypoalbuminemia, hypergammaglobulinemia, LDH increase. Quantiferon, virological, serological and culture tests were all negative but Leishmania IgG. CT scan was not conclusive. Bone marrow biopsy and aspirate were negative for both Leishmania and leukemic infiltration, and compatible with immune activation, in contrast with the inconclusive serological autoimmune panel. Based on the increased spleen and lymph node FDG-PET uptake, we performed a lymph node biopsy, showing reactive lymphadenitis likely triggered by an infectious disease. Surprisingly, a second bone marrow aspirate repeated 30 days later showed amastigotes and Leishmania PCR was positive on both bone marrow and blood. Following amphotericin B fever quickly fell down and abnormal blood tests improved. Ten days after antiparasitic start, Leishmania PCR on blood became negative. In conclusion, given the rarity of



Leishmania in Veneto and the negativity of the first bone marrow for Leishmania, the diagnostic pathway was laborious and time demanding. Notably, once diagnosis was reached, the patient recalled a trip to Spain occurring 18 months earlier.

### The medical fragility of elderly patients with spinal cord injuries during intensive rehabilitation seems to depend on the incompleteness of the spinal cord injury rather than the accumulated co-morbidities

H. Cerrel Bazo<sup>1</sup>, Q. Messina<sup>1</sup>, D. Valotto<sup>1</sup>, C. Cadorin<sup>1</sup>, A. Calabrese<sup>1</sup>, R. Rampello<sup>1</sup>, A. Tessari<sup>1</sup>, A. Bazzana<sup>1</sup>, R. Corradini<sup>1</sup>, S. Bargellesi<sup>2</sup>, P. Boldrini<sup>3</sup>

<sup>1</sup>(ORAS) Ospedale Riabilitativo di Alta Specializzazione di Motta di Livenza, Treviso, ULSS 2, Treviso; <sup>2</sup>Dipartimento di Riabilitazione, ULSS 2, Treviso; <sup>3</sup>(ORAS) Ospedale Riabilitativo di Alta Specializzazione di Motta di Livenza, Treviso, Dipartimento di Riabilitazione, ULSS 2, Treviso, Italy

Over the past decades, the occurrence of spinal-cord-injuries (SCI) among individuals aged 70 and older has increased almost five-fold. The SCI of late onset in the elderly requires ways of medical and rehabilitative care similar to young SCI. MD's need to check for co-morbidities that can interfere with the usual rehabilitation process. The study aims understand the fragilities that may hamper elderly SCI for better functional outcomes and less length of stay (LoS [days]) during the intensive rehabilitation program.

**Case-report:** Sample comparison. Setting: SCI-Unit (SCI-U). #5 male: C7-AIS-B, C3-AIS-D, L1-AIS-D, T12-AIS-D, C3-AIS-B. Age (years-old): 72-81, x: 76,80±3,70. CIRS (Cumulative-illness-rating-scale), BIMS (Barthel-index-modified-scale), the American-Spinal-Injuries-Association-Impairment-Scale (AIS).

**Results:** LoS x: 105,80±83,66. CIRS x: 21,00±2,34. BIMS x: 27,40±16,47. LoS vs AIS cor: 0,89, AIS-B >LoS x: 187,5±75,66, AIS-D <LoS x: 51,33±3,51. Motor-index-discharge (MtxF) vs AIS cor: 0,80, AIS-B <MtxF x: 33,5±9,19, AIS-D >MtxF x: 75,66±23,58. BIMS vs AIS: cor: 0,79, AIS-B <BIMS x: 13,0±1,41, AIS-D >BIMS x: 37,0±14,0. CIRS vs AIS: cor: 0,19, AIS-B-CIRS x: 20,5±3,53 and AIS-D vs CIRS x: 21,33±2,08. # infections/patient 1-6, x: 2,80±2,16. LoS and motor-functional-outcomes depend from the type of SCI. AIS-D correlates significantly with better motor-functional-outcomes, <LoS, <#s of medical complications. The opposite is true for AIS-B. Further studies will need to be follow to corroborate the aforementioned results.

### Piomiosite del muscolo psoas secondaria a disseminazione ematogena di E. Coli R a chinolonici a partenza da prostatite

G. Chesì<sup>1</sup>, S. Ognibene<sup>2</sup>

<sup>1</sup>Direttore Dipartimento di Unità Internistica Multidisciplinare, Scandiano AUSL RE, Reggio Emilia; <sup>2</sup>Dirigente Medico in Medicina Interna, AUSL RE, Reggio Emilia (RE), Italy

M di 79 anni affetto da ipertrofia prostatica. Giungeva in PS lamentando dolore lombare su irradiato in sede inguinale omolaterale da alcuni giorni e trattato con FANS senza beneficio. La mattina del ricovero rialzo febbrile preceduto da brividi scuotenti. Emodinamicamente stabile; EGA ed esami escludevano uno stato di sepsi grave. Obiettività e radiografia del torace nei limiti di norma. Si tratteneva in ricovero nel sospetto di colica renale e associata IVU. All'ingresso in reparto si avviavano esami colturali (emo e urinoculture). In seconda giornata si assisteva al rialzo dei markers d'infezione (PCT: 4.17 ng/ml; PRC 20,8 mg/dl) e precoce positività dei colturali per E.coli R a chinolonici su cui si impostava terapia con Ceftriaxone ev. La TC addome escludeva nefrolitiasi o calcolosi renale evidenziando la presenza di formazione nodulare prostatica ipointensa sinistra di 3,5 cm, sospetta per localizzazione infiammatoria. Nonostante la terapia antibiotica mirata persistevano puntate febbrili cui si associavano dolori circoscritti al rachide lombare. Nel sospetto di secondaria localizzazione discitica abbiamo eseguito RMN-rachide che non risultava dirimente ed infine PET/TC con 18F-FDG che documentava ipercaptazione del tracciante a livello del muscolo psoas sn, dei tessuti perivertebrali e del pilastro diaframmatico dx compatibile con piomiosite secondaria. Il paziente ha svolto tp ab mirata per 3 mesi fino a normalizzazione della PCR e risoluzione della febricola e del dolore lombare.

### Effectiveness outcomes at 30 days in 30 patients with venous thromboembolism. "EFIXAMB" Study: comparative analysis using Cochran's parametric Q test for continuous variables

M.M. Ciammaichella<sup>1</sup>, R. Maida<sup>1</sup>, A. Ulissi<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza, A.O. S. Giovanni-Addolorata, Roma, Italy

**Background and Purpose of the study:** The "EFIXAMB" study - an acoustic arising from "Efficacy outcomes in 30 patients in treatment with rivaroxaban for acute venous thromboembolism", enrolled 30 patients with venous thromboembolism in the 2015-2016 period. The "EFIXAMB" study has the following objectives: to verify any relationship between the values of recurrent VTE and VTE-related death; and to verify the statistical significance detected by applying the Cochran Q parametric test.

**Materials and Methods:** For the calculation of the  $\chi^2$  apply the following formula:  $\chi^2 = (K-1) [(kx) - y^2] / (Ky) z = 20.95$ . Where "k" refers to the three variables considered, and "x" refers to the total of the squares of the 3 variables considered. "y" indicates the total number of clinical conditions. "y<sup>2</sup>" refers to the square of the total clinical conditions. "z" indicates the total of the squares of the clinical condition. The relative value (RV) of  $\chi^2$  obtained is 60 with Degrees of Freedom (DF)=2. The critical value (CV) of  $\chi^2$  for p=0.001 is 13.816.

**Results:** The Cochran Q test shows how the clinical situation "N" (No recurrent VTE) detected for all patients is not due to chance, but takes a high statistical significance, as the relative value (RV) of  $\chi^2$  obtained is 60 with Degrees of Freedom (DF)=2 and the critical value (CV) of  $\chi^2$  for p=0.001 is 13.816. The differences of choice are, therefore, highly significant with p < 0.001.

**Conclusions:** The data from the "EFIXAMB" study show in the follow-up at 30 days highly significant outcomes of effectiveness.

### Safety outcomes at 30 days in 30 patients with venous thromboembolism. "Safoxemb" study: comparative analysis with Cochran's parametric Q test for continuous variables

M.M. Ciammaichella<sup>1</sup>, R. Maida<sup>1</sup>, A. Ulissi<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza, A.O. S. Giovanni-Addolorata, Roma, Italy

**Background and Purpose of the study:** The "SAFOXEMB" study, an acoustic for "SAFETY outcomes in 30 patients in treatment with rivaroxaban for acute venous thromboembolism", has 30 patients enrolled for the two-year period January 2015-December 2016. All the patients underwent initial treatment with LMWH for 24-48 hours switched with Rivaroxaban. The safety outcomes were evaluated at 30 days: fatal bleeding and major/non major bleeding. The "SAFOXEMB" study has the following objectives: to verify any relationship between fatal bleeding and major/non-major bleeding values; to verify any statistical significance observed by applying Cochran's parametric Q test as a comparative analysis test.

**Materials and Methods:** The following formula is applied to calculate  $\chi^2$ :  $\chi^2 = (k-1) [(kx) - y^2] / (ky) z = 20.95$ , where "k" indicates the three variables considered, "x" indicates the total sum of the squares of the 3 variables considered, "y" indicates the total number of clinical conditions, "y<sup>2</sup>" indicates the square of the total number of clinical conditions and "z" indicates the total sum of the squares of the clinical conditions.

**Results:** The Cochran Q test shows that the clinical situation "N" (no fatal or major/non major bleeding) found in all patients is not due to chance, but is of high statistical significance as the relative value (RV) of  $\chi^2$  obtained is 60 with Degrees of Freedom (DF)=2 and a critical value (CV) of  $\chi^2$  for p=0.001 of 13.816.

**Conclusions:** The "SAFOXEMB" study showed that there are highly significant safety outcomes in the group of 30 patients.

### Seasonal variations of hyponatremia

T. Ciarambino<sup>1</sup>, C. Politi<sup>2</sup>, L.E. Adinolfi<sup>3</sup>, M. Giordano<sup>3</sup>

<sup>1</sup>Hospital of Marcanise, Caserta; <sup>2</sup>Hospital F.Veneziale, Isernia; <sup>3</sup>University of Campania, Italy

**Study objective:** We investigated seasonal prevalence of hyponatremia in the Internal Medicine Department.

**Design:** A cross-sectional study using clinical chart review, at the

University Hospital Internal Medicine Department, with approximately 31 000 patient visits a year.

**Type of participants:** We reviewed 12.100 patients, subdivided in 2 groups: the adult group consisting of 8005 patients aged between 18 and 64 years old and the elderly group consisting of 4095 patients aged over 65 years presenting between January 1st, 2015 and December 31st, 2015.

**Intervention:** All patients were evaluated for the presence of hyponatremia by clinical chart review.

**Main results:** Hyponatremia was defined as a serum sodium level  $<135$  mmol/l. Mean monthly prevalence of hyponatremia was of  $3.56\pm 0.4\%$  in the adult group and it was significantly increased to  $9.7\pm 0.6\%$  in the elderly group ( $p<0.05$  vs adults). During the summer, hyponatremia prevalence was of  $3.94\pm 0.3\%$  in adult and markedly increased to  $11.7\pm 0.5\%$  in elderly patients ( $p<0.01$  vs adult group;  $p<0.05$  vs other seasons in elderly group). In the elderly group, we reported a significant correlation between weather temperature and hyponatremia prevalence ( $r: 0.543$ ;  $p<0.05$ ).

**Conclusions:** We observed a major influence of temperature on the prevalence of hyponatremia in the elderly. In elderly, decline in renal function, salt loss, reduced salt intake and increased water ingestion could contribute to developing hyponatremia during the hot season. These data could be useful for physicians to reduce the risk of seasonal-induced hyponatremia in the elderly.

### Articular manifestation of Behçet disease

R. Cimino<sup>1</sup>, C. Pintaudi<sup>2</sup>, S. Giancotti<sup>2</sup>, V. Emanuele<sup>3</sup>, A. Rotundo<sup>4</sup>, I. Felicetta<sup>5</sup>, M. Calabria<sup>2</sup>, S. Mazzuca<sup>6</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>2</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>3</sup>Cardiologia, UMG, Catanzaro; <sup>4</sup>I.P. S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>5</sup>I.P. S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>6</sup>Responsabile Medicina Interna, Casa di Cura Villa del Sole, Catanzaro, Italy

**Aim:** To analyze joint involvement in patients with Behçet's disease (BD), and to assess association between joint involvement and clinical symptoms.

**Methods:** We collected 16 patients diagnosed with BD following International Criteria for Behçet Disease between 2015 and 2016 and followed at regional hospital Arnaldo Pugliese, Catanzaro. All the patients had the certificate of Rare Disease (RC0210).

**Results:** Of 16 patients with BD, 14(87,5%) were female and 2 (12,5%) were male (sex ratio 7:1). The mean age was 44 years (range, 24-62years). Familial history of BD was recorded in 6,3%. Ocular involvement was found in 41.3%, oral aphthosis was detected in 87,5% of patients at presentation, genital ulcers in 75%, pseudo-folliculitis in 68,5% and erythema nodosum in 25%. Neurological and vascular involvement was found in 12, 5% and 31, 5% of patients, respectively. Arthritis, arthralgia or inflammatory spondylitis was recorded in 10 (62,5%) patients: oligo-arthritis (40%) was the most frequently reported among patients, followed by mono- arthritis (30%) and polyarthritis (20%). Knees was most frequently involved (30%), wrist and ankle followed with 20%, hand, foot and lumbar involvement accounted for 10% of case each. Patients with joint involvement had the highest levels of serum ESR ( $36.1\pm 2.08$  vs.  $16, 5\pm 1.12$ ) and CRP levels ( $29.9\pm 3.03$  vs.  $6.91\pm 7.21$ ) than patients without joint involvement. Patients belonging to joint involvement developed more major organ involvement.

**Conclusions:** Articular manifestation is frequently seen in BD, in more than a half of patients

### Diagnostic contribution of salivary gland scintigraphy in patients with suspected Sjögren's disease

R. Cimino<sup>1</sup>, P. Puntieri<sup>2</sup>, C. Pintaudi<sup>3</sup>, S. Giancotti<sup>3</sup>, A. Rotundo<sup>4</sup>, I. Felicetta<sup>4</sup>, V. Emanuele<sup>5</sup>, M. Calabria<sup>3</sup>, S. Mazzuca<sup>6</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>2</sup>S.O.C. Medicina Nucleare, AOPC, Catanzaro; <sup>3</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>4</sup>I.P. S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>5</sup>Cardiologia, UMG, Catanzaro; <sup>6</sup>Responsabile Medicina Interna, Casa di Cura Villa del Sole, Catanzaro, Italy

**Aim:** Of the study was to evaluate the diagnostic value of technetium 99m pertechnetate salivary gland scintigraphy.

**Materials and Methods:** We evaluated 37 female patients (range 24-79 years.)with clinical suspicion of Sjogren's disease .All the patients underwent thirty minute dynamic studies after injection of technetium 99m pertechnetate with secretory stimulus at 15 minutes. Three quantitative parameters were determined: the ejection fraction, uptake ratio at 15 minutes, and the percentage uptake both in parotid and submandibular glands.

**Results:** Significant differences were found between the 37 female patients and 10 healthy subjects (control group). In 30 patients (Sjogren's Disease) the technetium 99m pertechnetate salivary gland scintigraphy showed a decrease in all the three quantitative parameters by the 4 glands (ejection fraction, uptake ratio and percentage uptake). In all the 30 patients we carried out a global evaluation of these patients and we confirmed Sjogren's disease. In 3 patients (chronic obstructive paotitis) the technetium 99m pertechnetate salivary gland scintigraphy showed only reduced ejection fraction. In 4 patients (sialolithiasis) the technetium 99m pertechnetate salivary gland scintigraphy showed reduced ejection fraction and decreased percentage uptake in 3 patients.

**Conclusions:** The technetium 99m pertechnetate salivary gland scintigraphy has proved to be a useful method to differentiate patients with Sjogren'S disease from healthy subjects and played a role in the diagnosis and differential diagnosis of salivary gland disease.

### Nailfold videocapillaroscopy in healthy individuals: description of normal patterns

R. Cimino<sup>1</sup>, S. Mazzuca<sup>2</sup>, C. Pintaudi<sup>3</sup>, S. Giancotti<sup>3</sup>, M. Calabria<sup>3</sup>, V. Emanuele<sup>4</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>2</sup>Responsabile Medicina Interna, Casa di Cura Villa del Sole, Catanzaro; <sup>3</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>4</sup>Cardiologia, UMG, Catanzaro, Italy

Nail fold capillary microscopy is a useful non invasive tool to evaluate micro vascular involvement.

**Aim:** To describe our single center experience in the use of nail fold capillaroscopy.

**Methods:** Review of the all nail fold capillaroscopies done in our center between January 2012 and December 2014. The mean age of these patients was 48, 2 (range 18-79) years. Nail fold capillaroscopy (NFC) was performed using a Videocap 3.0 (DS Medica) with magnification 200x. NFC examinations were performed by the same experienced investigator, four consecutive fields were examined bilaterally in the middle of the nail fold for any single finger (2°, 3°, 4°, 5°).

**Results:** 3978 nail fold capillaroscopies were made in patients who had RP (89% females, 11% males). 3075 exams (77,4%) were considered normal capillaroscopies and corresponded to patients that did not have any diagnosed disease (primary RP). Number of capillaries/mm:  $9,3\pm 1, 1$ . The capillary dimension were: capillary loop length  $258,6\pm 62, 9$   $\mu$ m, intercapillary distance  $120,1\pm 32, 9$   $\mu$ m, capillary width  $14,5\pm 2, 97$   $\mu$ m. Enlarged capillary and avascular areas were present in 12% and 10% of capillaries. Microhaemorrhages were found in 4%, 8% had capillaries with one crossing; none had capillaries with a width larger than 50 microns. There is a wide variability in the capillary morphology, and a good concordance between age and number of capillaries, capillary length and capillary width.

**Conclusions:** NFC has been shown to be a reproducible method

### Acro-osteolysis in systemic sclerosis is associated with severity of digital ulcers and severe calcinosis

R. Cimino<sup>1</sup>, S. Mazzuca<sup>2</sup>, C. Pintaudi<sup>3</sup>, S. Giancotti<sup>3</sup>, M. Calabria<sup>3</sup>, A. Rotundo<sup>4</sup>, V. Emanuele<sup>5</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>2</sup>Responsabile Medicina Interna, Casa di Cura Villa del Sole, Catanzaro; <sup>3</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>4</sup>I.P. S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>5</sup>Cardiologia, UMG, Catanzaro, Italy

The bone resorption of terminal digital tufts (acro-osteolysis) is a under-researched manifestation of SSc.

**Aim:** To investigate the association between acro-osteolysis, the presence of calcinosis and the severity of digital ulcers.

**Methods:** Data were collected retrospectively from 38 patients (29 F and 7 M) with SSc and digital ulcers followed from 2004 until December 2014. All the patients underwent a hand radiograph and for the purpose of the study a grading scale for acro-osteolysis was developed: 0= normal bone structure, 1=resorption of most of the distal tip of the terminal tuft, 2=resorption of most of terminal tuft, 3= severe penciling of the terminal phalanges. Calcinosis was subdivided into mild, moderate and severe depending on the density of calcinosis and the number of separate sites of calcinosis.

**Results:** Of 38 patients, 28 (73,6%) had an acro-osteolysis rating of 0-1 (normal/minimal), 2 (5,1%) patients had a rating of 2 (moderate) and 8 (21,3%) patients had a rating of 3 (severe). 16 patients (40,2%) had radiographic calcinosis; in 28 patients with acro-osteolysis the median number of DU was 3.0. More Digital Ulcers were present at the end of the cold season from February to May; 3 patients (7,8%) had soft tissue infection followed by gangrene and finally by surgical amputation. 2 patients were died for PAH.

**Conclusions:** Our study suggests that acro-osteolysis is another ischaemic manifestation of SSc and may also be associated with calcinosis and with severity of digital ulcers.

### Capillary morphology abnormalities in mild blood pressure elevation

R. Cimino<sup>1</sup>, S. Mazzuca<sup>2</sup>, S. Giancotti<sup>3</sup>, C. Pintaudi<sup>3</sup>

<sup>1</sup>Direttore S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>2</sup>Responsabile Medicina Interna, Casa di Cura Villa del Sole, Catanzaro; <sup>3</sup>S.O.C. Medicina Interna, AOPC, Catanzaro, Italy

**Aim:** Of the study was to determine if altered capillary morphology is associated with systolic and/or diastolic blood pressure (SBP/DBP) in subjects without and with mild blood pressure elevation (SBP=130-160 mm Hg).

**Methods:** Eighty hospitalized non-diabetic patients 23-55 years of age. With mild blood pressure, (52 M and 28 F) were studied. Forty-four were affected with ISH and thirty-six with SDH with a time period of disease between 4 and 20 years (mean 11,70±6,06 years). Mean values of blood pressure were 162,08±12,02 and 92,88±6,06 mmHg in patients with SDH and 166,12±82,04±8,22 mmHg in patients with ISH. All the patients were under hypertensive treatment. All the subjects enrolled in the study underwent a nail fold capillaroscopy at 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> finger or both hands.

**Results:** Nail fold capillaroscopic analysis revealed that the decrease in number of capillary loops was more marked in the patients with SDH. The most frequent capillaroscopic abnormalities were lengthened capillaries (80%), Thinner capillaries 38%), ectasias (62%), dystrophic capillary loops (72%), edema (80%) and microhemorrhages (42%). Dilated and tortuous capillaries, arteriovenous sludge, and fleabite iuxta-capillary microhemorrhages, were found especially in the patients with ISH.

**Conclusions:** Our study revealed a decrease of the number of capillary loops, the loops appear thinner and lengthened in the hypertensive people without no significant difference between ISH group and SDH group. Such changes are due to a decrease in blood flow to micro vessels because of arteriolar diameter constriction.

### Posterior reversible encephalopathy syndrome in a patient with refractory celiac disease

E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, N. Palagano<sup>1</sup>, C. Marchiani<sup>1</sup>, G. Bandini<sup>1</sup>, M. Gagliano<sup>1</sup>, C. Piazzai<sup>1</sup>, P. Bernardi<sup>1</sup>, A. Mele<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, A. Moggi Pignone<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>

<sup>1</sup>Università degli Studi di Firenze, Italy

**Introduction:** Posterior Reversible Encephalopathy Syndrome (PRES) is a newly recognized neurological disorder first described in 1996 and reported in almost all age groups, characterized by a range of neurological signs and symptoms and distinctive neuroimaging findings associated to vasogenic edema, probably related to cerebral hyperperfusion or endothelial dysfunction caused by circulating toxins. Neurological manifestations are generally reversible but a poor outcome can be observed.

**Case presentation:** 74-year-old man with refractory celiac disease, malnutrition, vitiligo and AF developed sudden coma (GSC 4/15) and a subsequent "torsade de pointe" with concurrent hypokalemia and hypomagnesemia. Treated in ICU with immediate recovery, he was admitted to our department with a GCS 15/15, no neurological deficits and normal ECG. We introduced TEN and steroids for celiac disease, and vital signs remained within normal limits. After a week, he developed a new sudden loss of consciousness with GSC 6/15, right ocular deviation and normal vital signs except for new-onset moderate hypertension. Analysis revealed mild hypermagnesemia and increased WBC count, right hemispheric slowdown on EEG, no acute lesions on TC scan but a posterior cerebral involvement on MRI typical of PRES. Despite of medical treatment, clinical conditions rapidly worsened and the patient died soon after.

**Conclusions:** PRES syndrome is associated with many conditions and autoimmune diseases in particular; despite of disease definition itself, neurological recovery is unpredictable and a poor outcome is possible.

### The impact of a single apheresis procedure on endothelial function assessed by peripheral arterial tonometry and endothelial progenitor cells

G. Cioni<sup>1</sup>, F. Cesari<sup>2</sup>, R. Marcucci<sup>2</sup>, A.M. Gori<sup>2</sup>, L. Mannini<sup>2</sup>, R. Abbate<sup>2</sup>, G. D'alessandri<sup>3</sup>

<sup>1</sup>Internal Medicine, University of Florence; <sup>2</sup>Experimental and Clinical Medicine, University of Florence; <sup>3</sup>SIMT, USL3, Pistoia, Italy

**Introduction:** Aim of this study was to investigate the relationship between bone marrow-derived progenitor cells and both endothelial response to hyperaemia, evaluated through digital pulse amplitude tonometry (PAT), in high vascular risk patients before, immediately after, 24-hours and 72 hours after a single lipid apheresis procedure.

**Materials and Methods:** We evaluated lipid profile, endothelial function and endothelial progenitor cells before (T0), immediately after (T1) and 24h after (T2) a LDL-apheresis procedure, in 8 consecutive patients [M=5;F=3;64(55-68)years] with history of acute coronary syndrome, symptomatic peripheral arterial disease and elevated plasma levels of Lp(a).

**Results:** We found a reduction in Ln-RHI after procedure; difference between T2 and T0 was statistically significant. Reduction in Ln-RHI values was documented in all patients, two subjects showing a Ln-RHI<0.4 at T1, and four at T2. At T3, PAT values were increased significantly in comparison to T1 and T2, showing a median value higher than at T0. Cd34+/Kdr+ and Cd133+/Kdr+ showed a minimum increase in median values at T1, and a higher increase at T2, in comparison to baseline. Differences in Cd34+/133+/Kdr+ values at different times were not statistically significant. A significant reduction in CEC count at T2 in comparison to T0 was found.

**Discussion:** At 24h and 72h after procedures, we found an improvement in endothelial function expressed by an increase in PAT values and EPC levels, and by a reduction in CEC, obtaining higher values in comparison to baseline.

### Spontaneous cerebral haemorrhage in a young weight lifter

G. Cioni<sup>1</sup>, M. Boddì<sup>2</sup>

<sup>1</sup>Internal Medicine, University of Florence; <sup>2</sup>Experimental and Clinical Medicine, University of Florence, Italy

**Introduction:** Intracranial haemorrhage is the leading cause of death related to a head trauma in sports, and spontaneous cerebral bleedings are a very rare condition in young athletes.

**Aim:** We propose the case of a young weight lifter, androgenic anabolic steroids abuser, who developed a spontaneous massive intracranial haemorrhage during exertion.

**Discussion:** The patient was a weight lifter at a competitive level, who had exercised on a regular basis for the past 5 years, assuming anabolic steroids and proteins for some years. Moreover, he referred a negative family history for spontaneous bleeding in the brain. At the visit time he presented very high blood pressure values.

**Conclusions:** In this case report, the side of the cerebral lesion

was typical for a hypertensive brain damage. High blood pressure values, and the alteration of sodium and potassium were compatible with hyperaldosteronism; moreover, cardiac ultrasound assessment showed a hypertrophic ventricle condition, secondary to a chronic untreated hypertension. However, in current literature, the effect of weight lifting and anabolic steroids abuse on myocardial fibres is actually object of discussion.

### The effects of bolus versus continuous intravenous furosemide infusion on clinical and biohumoral response in patients with congestive heart failure

G. Cioni<sup>1</sup>, G. Genovesi<sup>1</sup>, A. Crociani<sup>1</sup>, G. De Marzi<sup>1</sup>, S. Baroncelli<sup>1</sup>, C. Florenzi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, E. Antonielli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

**Introduction and Objectives:** There are no clear indications on the best way of administration of loop diuretics in acute congestive heart failure (HF). Our aim was to assess the impact of different modality of administration, boluses vs continuous infusion, on renal function, clinical response and prognosis.

**Materials and Methods:** The study was conducted retrospectively on 454 patients hospitalized for HF between January 2014 and December 2015 in a unit of Internal Medicine. They were divided into mild-HF and moderate to severe-HF, on the basis of severity of HF, according to NYHA class admission, values of NT-proBNP and radiographic findings, and into bolus or infusion, on the basis of the way of diuretic administration.

**Results:** 88 patients underwent infusion and 366 boluses. In the group with mild-HF, continuous infusion showed a trend toward improved renal function, calculated as the MDRD. In moderate-to-severe-HF patients, continuous infusion was significantly associated with improved renal function. There was no significant association with prognosis and the total dose and way of diuretic administration over 72 hours.

**Conclusions:** The infusion was more effective to improve the renal function, especially in patients with poor kidney function and moderate to severe-HF. The data presented confirm the efficacy and safety of continuous infusion of diuretic therapy.

### The different impact of chronic aerobic exercise on vascular and liver function in 50 male athletes. A 2-year follow-up

G. Cioni<sup>1</sup>, R. Marcucci<sup>2</sup>, R. Abbate<sup>2</sup>, M. Boddi<sup>2</sup>

<sup>1</sup>Medicina Interna Alta Complessità Assistenziale 1, AOU Careggi, Firenze; <sup>2</sup>Dipartimento di Medicina Sperimentale e Clinica, AOU Careggi, Firenze, Italy

**Background:** We followed for two years elite male athletes aged 20 to 30 years and age- and sex-matched healthy controls, assuming that the progression of vascular damage, evidenced at the baseline, could be directly associated to the physical activity. Moreover, we assessed the presence of liver steatosis in athletes and controls at each time, to study in deep the cardiovascular risk profile.

**Materials and Methods:** Ninety male subjects (50 athletes and 40 controls) underwent a comprehensive vascular function evaluation, assessing ankle brachial index (ABI), augmentation index (AIX), intima-media thickness and pulse wave velocity assay at common carotid (c-IMT, c-PWv) and femoral arteries (f-IMT, f-PWv), and non-alcoholic fatty liver disease (NAFLD). These evaluations were performed at baseline (T0), after one year (T1) and after 2 years (T2).

**Results:** We found that athlete's f-PWv and femoral AIX at T2 were significantly increased in comparison to T0. PWv, IMT and AIX values at T2 did not significantly differ in control subjects. At T0, and especially at T2, athletes showed higher values of femoral AIX and f-PWv; at the opposite, c-IMT and f-IMT values were significantly higher in controls than in athletes at the baseline and after 2 years. Athletes did not show any degree of NAFLD at T0 and T2; controls did not show an increase of NAFLD values between T0 and T2, but presented significantly higher values in comparison to athletes.

**Conclusions:** This study showed the progression of sport-related and district-specific vascular damage, assessed as morphological and functional parameters.

### Assessment of vascular function at common carotid and femoral arteries, and inflammatory markers in primary prevention HIV patients

G. Cioni<sup>1</sup>, R. Marcucci<sup>1</sup>, A.M. Gori<sup>1</sup>, C. Martinelli<sup>2</sup>, A. Carocci<sup>2</sup>, P. Corsi<sup>2</sup>, F. Leoncini<sup>2</sup>, R. Abbate<sup>2</sup>

<sup>1</sup>Dipartimento di Medicina Sperimentale e Clinica, Careggi, Firenze;

<sup>2</sup>Dipartimento di Malattie Infettive, Careggi, Firenze, Italy

**Aim:** We evaluated markers of endothelial dysfunction, such as reactive hyperemia, von Willebrand factor (vWF), plasminogen activator inhibitor type 1 (PAI-1), tissue-type plasminogen activator (t-PA) and sub-clinical atherosclerosis by ultrasonographic carotid intima-media thickness (c-IMT) assessment, in HIV positive patients.

**Methods:** 16 HIV positive patients [M 15, F 1, median age of 44 (24-65) years; naïve for antiretroviral drugs] and 16 age- and sex-matched controls subjects were enrolled in the study. All patients and controls underwent c-IMT ultrasound assessment and peripheral arterial tonometry (PAT).

**Results:** c-IMT showed intimal thickening in 56.3% (9/16) of HIV positive patients compared to 12.5% of controls (2/16) ( $p=0.023$ ). HIV positive patients showed a lower reactive hyperemia index (RHI) with respect to the control population [1.99 (1.27-2.85); 2.20 (1.48-3.22);  $p=0.032$ ]. RHI values were significantly lower in subjects with carotid intimal thickening with respect to those without carotid intimal thickening [1.98 (1.39-2.51); 2.20 (1.27-3.22);  $p=0.007$ ]. In HIV positive patients RHI values were significantly correlated with t-PA ( $r=-0.65$ ,  $p=0.007$ ), and a trend towards a significant correlation between RHI and PAI-1 was observed ( $r=-0.39$ ,  $p=0.13$ ). No relationship between t-PA, PAI-1, vWF and c-IMT was found.

**Conclusions:** Our data demonstrate the presence of an increased carotid intima-media thickness in HIV positive patients. Altered endothelial function detected by PAT is associated with soluble markers and sub-clinical atherosclerosis.

### The effects of niacin/laropirant therapy on endothelial function in high risk patients

G. Cioni<sup>1</sup>, R. Marcucci<sup>1</sup>, A.M. Gori<sup>1</sup>, L. Mannini<sup>1</sup>, R. Abbate<sup>1</sup>

<sup>1</sup>Dipartimento di medicina sperimentale e clinica, Careggi, Firenze, Italy

**Background:** Lipoprotein (a) is an atherothrombotic marker, damaging vessels indirectly by its capability to alter fibrinolysis, and directly, by its similarity with an LDL protein.

**Aims:** To assess the behaviour of lipid profile, haemoreological profile and endothelial function in secondary prevention patients treated with niacin/laropirant.

**Methods:** 45 patients, all presenting Lp(a)>300mg/dl, with previous adverse cardiovascular event and multiple comorbidities, were treated daily with 2000 mg of nicotinic acid/40 mg laropirant and optimal statin therapy, for 12 months. Lipid profile, Lp(a), high-sensitive-PCR levels and haemoreological profile were analysed. Endothelial function was assessed by peripheral arterial tonometry (PAT).

**Results:** After 12-month treatment the levels of triglycerides, LDL-c and Lp(a) were significantly reduced ( $p=0.002$ ,  $p=0.002$ ,  $p<0.0001$ ), instead HDL-c levels increased ( $p=0.029$ ). No differences in hsPCR levels were found. Unexpectedly, regarding blood viscosity, red cell deformability ( $0.3351\pm 0.3422$  vs  $0.3128\pm 0.0392$ ) and aggregation ( $63.80\pm 8.90\%$  vs  $60.78\pm 5.70\%$ ) were impaired ( $p=0.023$  and  $p=0.077$ , respectively) after 12 months. Accordingly, PAT values were lower after treatment ( $2.12\pm 0.77$  vs  $1.77\pm 0.38$ ,  $p=0.044$ ).

**Conclusions:** Niacin is significantly able to improve lipid profile, particularly by reduction of Lp(a). Despite these behavioural effects, nicotinic acid/laropirant seems to negatively affect blood viscosity and endothelial function, suggesting a possible explanation of the negative results of HPS2-THRIVE study.

### Assessment of vascular peripheral atherosclerosis and endothelial function in systemic lupus erythematosus patients, in comparison to high cardiovascular risk subjects and controls

G. Cioni<sup>1</sup>, R. Marcucci<sup>1</sup>, E. Silvestri<sup>1</sup>, G. Emmi<sup>1</sup>, M.M. D'elios<sup>1</sup>, R. Abbate<sup>1</sup>, D. Prisco<sup>1</sup>, M. Boddi<sup>1</sup>

<sup>1</sup>Department of Experimental and Clinical Medicine, Careggi, Florence, Italy

**Aim:** We investigated vascular function in Systemic Lupus Erythematosus (SLE) patients, in comparison to patients with acute coronary syndromes (ACS) (less 1-year previous event) and healthy controls.

**Materials and Methods:** In 170 patients (controls: 76, ACS: 74, SLE: 20), we assessed peripheral arterial tonometry (PAT) and augmentation index (Aix) by EndoPAT, intima media thickness and pulse wave velocity at common carotid (c-IMT, c-PWv) and femoral arteries (f-IMT, f-PWv) by ultrasound.

**Results:** ACS patients showed a marked atherosclerotic damage (ACS: c-IMT=1.9±0.6mm, f-IMT=1.7±0.8mm; SLE: c-IMT=1.6±0.8mm, f-IMT=1.5±0.7; controls: c-IMT=1.3±0.9mm, f-IMT=1.2±0.4); SLE and ACS patients data did not significantly differ. Vascular compliance was significantly impaired in SLE, in comparison to ACS (p<0.05) and controls (p=0.001). Aix was higher in SLE, in comparison to ACS (p=0.2) and controls (p=0.002). SLE showed a significantly lower endothelial function, compared to controls (p=0.03) and these values minimally differed between SLEs and ACS (p=0.3). At univariate and multivariate analyses, presence of SLE and a previous vascular event were significantly associated to endothelial dysfunction (p=0.02 and 0.03, respectively) and compliance impairment (p=0.02 and 0.03, respectively).

**Conclusions:** SLE patients showed a marked atherosclerosis, similar to patients at very high CV as ACS. Despite the low cardiovascular risk profile, SLE group showed a pattern of anatomical and functional damage of peripheral vessel as that found in patients at very high CV risk profile.

### You're stressed

R. Cipriani<sup>1</sup>, G. Mancini<sup>1</sup>, C. Ocellì<sup>1</sup>

<sup>1</sup>UO Medicina, Ospedale Coniugi Bernardini, Palestrina (RM), Italy

We report a case of a 26-year-old female student with nausea, vomiting and fatigue for several months. After physical examination, gastroscopy with biopsy, abdominal ultrasonography and after excluding malabsorptions syndrome her doctor concluded that she was stressed out for the next graduation. For rapid worsening of the symptoms the young student was conducted in the emergency room and after physical examination and blood tests she was hospitalized for hypotension and hyponatremia. The hypothesis of adrenal gland dysfunction was likely for clinical history and because her blood pressure, glycemia and serum sodium were low. A blood sample for the assay of plasma cortisol and ACTH was immediately performed and the therapy with cortisone and fluid therapy quickly started. The symptoms rapidly regressed and laboratory test showed adrenal gland dysfunction. Further evaluations allowed us to diagnose a rare form of Polyglandular Autoimmune Syndrome (PAS). PAS are rare diseases based on autoimmune mechanisms in which endocrine and non-endocrine disorders coexist. In type 1 PAS the characteristic manifestations are chronic mucocutaneous candidiasis, hypoparathyroidism and adrenal insufficiency. Our patient had Hashimoto and anti gonads antibodies too and now is waiting for collection and freezing her oocytes. These syndromes must be diagnosed early, given their high morbidity and mortality but often but often wrongly young women with unclear symptoms are confounded with depressed or stressed patients.

### Centre territorial multipurpose for the management of chronicity

V.G. Colacicco<sup>1</sup>, S. Scorzafave<sup>2</sup>, S. Lenti<sup>3</sup>, M. Carlucci<sup>4</sup>

<sup>1</sup>Director District Social Health 2, ASL Taranto; <sup>2</sup>Organization of Health Services, District Social Health 2, ASL Taranto; <sup>3</sup>Internal Medicine Grottaglie, ASL Taranto; <sup>4</sup>Health Director, ASL Taranto, Italy

The Centre Territorial Multipurpose social health of the District 2 ASL Taranto (Massafra, Mottola Palagiano) is a complex associative form of general medicine (13 doctors), active 12 hours a day for 5 days/week, which is paid to basic health care, specialized services for chronic diseases and diagnostic tests 1st level. It em-

ploys 12 administrative for the front and back office and 5 nurses to care and planning. There are connections with specialists and centers withdrawals, point of first intervention of 118, of the department of prevention services and mental health and those of the SERT. With nurses are augmented paths care of chronic patients with acute exacerbation of the disease, those with limited mobility and those with a high level of care. A novelty is the activation of a unit of Integrated Home Care Protected, in which you can "transfer" momentarily the domicile of a patient with clinical and social management issues, thanks to the health care team (GP, doctors specialists, nurses and medical social workers). This will make it possible to activate the care pathway of intermediate care that are necessary to bridge the health care gap between home care and those in-patient facilities. With the activation of this structure it is possible to develop a more appropriate health demand government, since you avoid improper access to the emergency room and hospitalizations inappropriate. Also this allows to implement the initiative of medicine for chronic diseases and their appropriate follow-up without resorting to hospitalization given by the exacerbation of diseases.

### Un'anemia di interesse internistico: la sindrome di Heyde

L. Colangeli<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Policlinico Tor Vergata, Roma, Italy

**Introduzione:** Nella diagnosi differenziale dell'anemia sideropenica nel Paziente anziano valvulopatico dovrebbe essere sempre inclusa la sindrome di Heyde. Essa è definita dall'associazione di stenosi valvolare aortica e sanguinamento da angiodisplasie intestinali ed è dovuta ad una sindrome acquisita di von Willebrand tipo IIA: l'elevata forza di scorrimento generata dal flusso turbolento a livello della stenosi determina l'attivazione ed il consumo dei multimeri di fattore di Von Willbrand, con aumentato rischio di sanguinamento da malformazioni vascolari.

**Caso clinico:** La signora BC, 82 anni, si rivolgeva al proprio curante per astenia intensa. L'esame emocromocitometrico evidenziava anemia grave (Hb 6.3 g/dl, MCV 81.9 fl, MCH 24.3 pg). In anamnesi: ex-fumatrice, ipertensione arteriosa, portatrice di bioprotesi valvolare aortica e protesi tubulare dell'aorta ascendente per aneurisma aorta ascendente; per analogo riscontro di anemia nel 2015 ricovero in Gastroenterologia in cui gastroscopia e colonoscopia risultavano negative. Ricoverata in Medicina Interna, venivano eseguite emotrasfusioni e studio con videocapsula, che ha mostrato angiodisplasie intestinali sanguinanti. La Paziente veniva perciò sottoposta a cauterizzazione endoscopica con argon, con miglioramento del quadro.

**Discussione:** In questo interessante caso clinico, la Sindrome di Heyde si è sviluppata in una Paziente portatrice di bioprotesi valvolare aortica, a livello della quale l'ecocardiogramma ha evidenziato la presenza di sclerosi delle semilunari e un gradiente trans valvolare massimo di 50 mmHg.

### Prevalenza della sindrome delle apnee ostruttive notturne in pazienti affetti da ipertensione arteriosa

A. Concistrè<sup>1</sup>, V. Finocchi<sup>1</sup>, L. Petramala<sup>1</sup>, F. Olmati<sup>1</sup>, M. Celi<sup>1</sup>, C. Marinelli<sup>1</sup>, G. Iannucci<sup>1</sup>, C. Letizia<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Specialità Mediche, Università di Roma "Sapienza", Roma, Italy

**Premesse e Scopo dello studio:** La sindrome delle apnee ostruttive notturne (OSAS) è una frequente patologia caratterizzata da russamento, scarsa qualità del sonno e sonnolenza diurna, caratterizzata anche da un elevato rischio di complicanze cerebro-cardiovascolari. Differenti sono i fattori di rischio (obesità, età, sesso, fumo ed alcol). Lo scopo dello studio è stato quello di valutare in una serie di pazienti affetti da ipertensione arteriosa la prevalenza dell'OSAS e dei suoi gradi di severità, identificando il fenotipo di paziente iperteso a cui sospettare la presenza dell'OSAS.

**Materiali e Metodi:** Nel periodo gennaio 2010-settembre 2016 sono stati arruolati consecutivamente 6823 ipertesi pazienti presso il Ns Centro di Riferimento, di cui 194 sono risultati essere affetti da OSAS [(177 M (61%), 77 F (39%); età media 56±13.86 anni], suddivisi in tre gruppi a seconda della severità della pato-

logia valutata tramite l'indice AHI riportato nella PSG (Gruppo A: 136 pz con OSAS lieve; Gruppo B: 37 pz con OSAS moderata; Gruppo C: 21 pz con OSAS severa).

**Risultati:** Tra i parametri antropometrici più predittivi abbiamo riscontrato BMI e la circonferenza del collo, abitudine tabagica, consumo di alcool, attività motoria, grado di scolarità media-inferiore, occupazione di tipo impiegatizio.

**Conclusioni:** Fattori predisponenti lo sviluppo dell'OSAS risultano l'età, l'obesità, l'elevata circonferenza del collo, il genere maschile, l'abitudine tabagica ed il consumo di sostanze alcoliche, oltre ad una poca attitudine alla vita attiva e occupazioni di tipo prevalentemente impiegatizio.

### People with type 2 diabetes treated with insulin have barriers to intensifying their treatment: an international perspective

A. Consoli<sup>1</sup>, M. Feher<sup>2</sup>, A. Nickolagsen<sup>3</sup>, G. Vega Hernandez<sup>3</sup>, G. Lastoria<sup>4</sup>, M. Bogelund<sup>5</sup>

<sup>1</sup>Endocrinologia e Metabolismo Università di Chieti, Italy; <sup>2</sup>Chelsea and Westminster Hospital, London, UK; <sup>3</sup>Novo Nordisk, Søborg, Denmark; <sup>4</sup>Novo Nordisk Medical Affairs Roma, Italy; <sup>5</sup>Incentive, Holte, Denmark

Efficacy and safety of therapies for people with diabetes have improved in recent years. Barriers to intensifying treatment may be a critical factor. The aims of the study were to assess preferences on insulin injections and to identify behaviours associated with insulin intensification in insulin-treated patients with T2DM. Data were collected in a web-based survey of 1617 adults with insulin-treated T2DM in the US, Canada, UK, France and Netherlands. Respondents had a mean age of 54 years, 12 years dd, and 6 years of insulin treatment. Average BMI was 32 and HbA1c was 7.9%. From the 1286 respondents experiencing non-severe hypoglycaemia, 33% had at least one event per week and 27% one per month. 34% of patients had experienced severe hypoglycaemia with an average annual rate of 3.4 events. Half the group on BOT would prefer daily variation of timing of insulin dosing. For those using premix, 67% would prefer to make their own choice for two of the three meals when dosing insulin. Of those currently treated with BOT, 25% had tried either a premix or a BB regimen previously. From those, 39% and 28% respectively reported having switched back to BOT because of difficulty in complying with multiple injections, treatment-associated weight gain was the reason in 38% and 33% respectively, and treatment-associated risk of hypoglycaemia in 14% and 24% respectively. Also, 19% of those previously using BB insulin switched back to BOT due to difficulty in calculating the bolus doses. The results show that people with insulin-treated T2DM have barriers about intensification. Importantly, 25% on BOT have previously tried premix or BB regimen.

### A case of leukocytoclastic vasculitis: an uncommon but potentially serious side effect of rivaroxaban

M.G. Coppola<sup>1</sup>, L. Di Napoli<sup>1</sup>, M. Spina<sup>1</sup>, L. De Riso<sup>1</sup>, G. Cascone<sup>1</sup>, M.F. Coppola<sup>1</sup>, P. Di Napoli<sup>2</sup>, C. Coppola<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Generale, Ospedali Riuniti "Area Stabiese" Plesso Gragnano, Azienda Sanitaria Locale Napoli 3 Sud; <sup>2</sup>Dipartimento di Medicina Interna, Università degli Studi di Napoli Federico II, Napoli, Italy

A 67 year-old woman was admitted to the hospital for onset of lower extremity purpura and non specific abdominal pain. Her history was positive for chronic atrial fibrillation, hypertension, hypercholesterolemia. The patient had discontinued warfarin and started rivaroxaban 20 mg once daily by 7 days. Her medications included beta blocker, statin, ACE-inhibitor. A physical examination demonstrated bilateral purpuric rashes in the legs and a soft abdomen without rebounding pain. Laboratory analysis disclosed a slight leukocytosis, PCR and VES elevation. Renal function, rheumatologic panel, serology for hepatitis B and C, Epstein-Barr, Cytomegalovirus, HIV, as well as urine analysis, cryoglobulin test, IgA, coagulation studies were negative. There was no indication of eosinophilia. Chest X-ray, upper and lower endoscopy revealed no abnormalities. Abdominal ultrasonography and CT scan revealed thickening of the intestinal wall and edema with the lumen filled with fluid and prominent engorgement of mesenteric vessels.

Rivaroxaban was discontinued and enoxaparine was started. She was given a course of prednisone 0.5 mg/kg daily with gradual resolution of symptoms and skin lesions at 2 weeks after admission. Additionally, resolution of the mural thickening was observed within 1 week by abdominal ultrasound examinations. Biopsy of the skin lesions showed areas of LCV with neutrophil infiltrations within small vessels, fibronoid necrosis and red blood cell extravasation. At follow-up consultations 1 and 3 months after discharge she remained clinically stable. She continued warfarin therapy.

### New oral anticoagulants in real life: four-year experience in clinic

L. Corbi<sup>1</sup>, F. Cardoni<sup>2</sup>, R. Cesareo<sup>2</sup>, C. Cianfrocca<sup>2</sup>, V. D'alfonso<sup>2</sup>, P. Del Duca<sup>2</sup>, F. Marrocco<sup>2</sup>, A. Maietta<sup>2</sup>, B. Rosario<sup>1</sup>, R. Quintalliani<sup>2</sup>, G. Tommasi<sup>2</sup>, G. Zeppieri<sup>2</sup>, G. Campagna<sup>2</sup>

<sup>1</sup>ASL Latina; <sup>2</sup>Ospedale Santa Maria Goretti, Latina, Italy

**Introduction:** The aim of the present observational and perspective study was to test the effectiveness and safety of NAO in *real life* evaluating the effects of the treatment on 320 p. divided in 2 groups: 300 with AF and at least another risk factor treated with dabigatran, rivaroxaban and apixaban and 20 with DVT treated with rivaroxaban and dabigatran followed-up for 48 months.

**Materials and Methods:** D: 150 mg BID was administered to 140 p. with FA and to 2 patients with TVP; 110 mg doses 2 a day were administered to a p. sub-group (n° 17 of the 100 under treatment with D) aged at least 86 or weighting not more than 60 kg; A: at a 5 mg dose 2 a day was administered to 70 p. R: at a 20 mg dose per day was administered to 110 p. belonging to the group with FA and to the 14 patients affected by acute symptomatic pulmonary embolism (PE) in order to prevent a thromboembolic relapse.

**Results:** The study proves the NAO effectiveness as regards the primary outcome. Furthermore, given the preliminary data, it documents a death rate due to cardiovascular causes lower than 0.60%, while percentage data relating adverse events are quite null. The estimated *drop-out* percentage, from a preliminary analysis of data, was 36%; after a new evaluation of patients through telephone interview, it appeared that as a matter of fact none of the patients stopped the treatment, but just applied to another specialist or to the general GP.

**Conclusions:** The study proves the effectiveness and safety of NAO as to the prevention of TE events in AF, with results similar to the ones of large *trials*.

### Esophageal Abrikossoff tumor: a case report

L. Corbo<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. De Marzi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, C. Florenzi<sup>1</sup>, A. Crociani<sup>1</sup>, F. Rocchi<sup>1</sup>, E. Antonelli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 47-year old male patient presented with diabetic chetoacidotic coma. His past history included type I diabetes mellitus with low therapeutic compliance. He was treated with invasive ventilation, amine support, insuline therapy. After stabilization of clinical state, laboratory tests showed normocytic anemia (7,7 g/dL) with high count of reticulocytes. Aptoglobin, LDH and bilirubin values were in range of normality. Rectal examination was negative for blood or melena. For persistence of anemia we performed an esophagogastroduodenoscopy which showed a 6 mm sessile lesion with a superficial erosion in proximal esophagus. Histopathological examination of the specimen revealed Abrikossoff tumor (AT). ATs, or granular cell tumors, are rare and usually benign (malign in 2% of cases) tumors of neuroectodermal histogenesis. The tumor usually present as a small nodule in subcutaneous tissue. Most patient are between 40 and 60 at diagnosis and this tumor, generally asintomatic, is discovered incidentally. Most ATs are found in the tongue, but some have also been described in the skin, esophagus, larynx, stomach, bile duct, and reproductive tract. Esophagus is a rare location so this tumor can be mistaken with squamous cell carcinoma, especially when it presents with pseudoepitheliomatous hyperplasia of the overlying squamous epithelium. Therapy is either conservative or endoscopic removal if big, sintomatic or presenting surface ulceration (risk factor for malignancy). In our

case after endoscopic resection histology showed complete resection of a benign granular cell tumor.

### Autoimmune hepatitis triggered by diclofenac or drug-induced liver injury with features of autoimmunity?

L. Corbo<sup>1</sup>, G. De Marzi<sup>1</sup>, C. Florenzi<sup>1</sup>, E. Blasi<sup>1</sup>, G. Cioni<sup>1</sup>, A. Crociani<sup>1</sup>, G. Zaccagnini<sup>1</sup>, V. Turchi<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 49-year old female patient was admitted to our hospital with icterus, dark urine and decolored stools. The patient's history included Sjogren's syndrome; she was admitted to another hospital in the past year for toxic hepatitis from diclofenac. Clinical examination showed icterus and hepatomegalia. At laboratory testing we found elevated GOT, ALP, GGT and bilirubin, elevated IgG, negative serology for viral hepatitis, high titers of antinuclear antibodies and smooth muscle antibodies. At liver biopsy we found histological features of Autoimmune Hepatitis (AH). We started steroid therapy with prednisone, resulting in improvement of laboratory findings. Two hypotesis were taken into account: AH type 1 and drug induced liver injury (DILI) with features of autoimmunity. AH is supposed to be caused by environmental triggers acting on a genetic substrate. Several drugs have been implicated in triggering AH, including diclofenac. The diagnosis is made on antibodies titers, elevated IgG and liver biopsy. DILI with features of autoimmunity is an important category of hepatotoxicity due to medication exposure. Clinical presentation, histology and antibodies titers are similar to AH. Several cases of DILI with features of autoimmunity from diclofenac are described in medical literature. Sometimes it can be challenging to discriminate between the two diseases; nevertheless therapy is the same (steroid). Lack of recurrence of hepatic symptoms after corticosteroid discontinuation can be helpful to identify DILI.

### Delirium syndrome: what is the rationale for recognition and treatment?

N. Corcione<sup>1</sup>, D. Maresca<sup>2</sup>, A. Maffettone<sup>3</sup>

<sup>1</sup>Dipartimento di Medicina Specialistica, Diagnostica e Sperimentale, Università Alma Mater Studiorum, Bologna; <sup>2</sup>Unità Operativa Complessa di Pneumologia, Ospedale Orlandi, Bussolengo, (VR); <sup>3</sup>Unità Operativa Complessa di Medicina Interna, Azienda Ospedaliera dei Colli "V. Monaldi", Napoli, Italy

Delirium is a disturbance of consciousness with reduced ability to focus, sustain or shift attention, that's not better accounted for by preexisting or evolving dementia and that develops over a short period of time (hours to days) with fluctuation during the day. Multiple neurological mechanisms are involved, like inflammation, vascular dysfunction and neurotransmitter dearrangement. The available data for incidence and prevalence of delirium are fragmented. It appears that 15% to 30% of elderly patients will have delirium on hospital admission and up to 56% will develop it during their stay, with risk factors including dementia, older age, sleep disturbance, severity of medical illness, 'high-risk' medication use, diminished activities of daily living, immobility, sensory impairment, urinary catheterisation, urea and electrolyte imbalance and malnutrition. Delirium is an independent predictor of negative clinical outcomes, increasing mortality, hospital length of stay and cost of care; it seems to be strongly underrecognised, especially hypoactive forms, also for lack of use of assessment scales in routine clinical practice. Common drugs used to treat both hypo- and hyperactive forms are typical and atypical antipsychotics. A non pharmacological, multidisciplinary protocol should be standardized in internal medicine setting to prevent/treat delirium syndrome: early mobilization, feeding and adequate protein intake, preserving circadian rhythm, family presence past visiting hours could be a valid option to build an "integrated behavioural model" for approaching it.

### Fusobacterium nucleatum mediastinitis in a patient with chronic obstructive pulmonary disease

N. Cosentino<sup>1</sup>, S. Ziyada<sup>2</sup>, F. Soderino<sup>1</sup>, M. Fiorani<sup>2</sup>, M. Sando<sup>2</sup>, G. Vairo<sup>2</sup>, F. Marzano<sup>2</sup>, A. Santoro<sup>2</sup>, A. Fierro<sup>2</sup>

<sup>1</sup>Family Physician Asl Roma 2, Rome; <sup>2</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome, Italy

**Introduction:** *Fusobacterium Nucleatum* is a strictly anaerobic Gram-negative rod, usually found in the gastrointestinal, oropharyngeal and respiratory tract. Colonization sites can become infection sources in patients with impaired cough reflex like patients with COPD. Chest manifestations of *Fusobacterium* include mediastinitis, pneumonia, pleural effusion. It is responsible for abscesses in many organs.

**Case report:** A 75-year-old male patient was admitted with a two months history of persistent cough, dyspnea and fever. His medical history COPD. Chest CT showed a pulmonary abscess in the lingular lobe, a necrotic lesion of left parietal pleura infiltrating pectoral muscle, left pleural and pericardial effusion. Our patient underwent a mediastinal and pleural drainage. Microbiological examination identified the presence of *F. Nucleatum*.

**Discussion:** Acute infection of the mediastinum is a rare condition. Frequently it is a consequence of esophageal or tracheobronchial perforation, cardiovascular surgery, descending infection following surgery of the head and neck, progressive odontogenic and lung infection, paravertebral abscess or osteomyelitis of the sternum. No cardiovascular surgery was performed in our patient, chest CT excluded the presence of Lemierre's syndrome or esophageal perforation. We hypothesize the infection spread from the airways to the mediastinum, pleura, pericardium and pectoral muscle. The duration of antimicrobial therapy varies, sometimes more than six weeks depending on the type of pulmonary involvement, especially for pulmonary abscess.

### Sepsi grave da capnocytophaga: un caso clinico

F. Costanzo<sup>1</sup>, M. Carbone<sup>1</sup>, P. Trupioti<sup>2</sup>, L.I. Bellazzi<sup>2</sup>, C. Terulla<sup>2</sup>, L. Diachyshyna<sup>3</sup>, M. Mercuri<sup>3</sup>, L. Porretti<sup>4</sup>, L. Magnani<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Voghera, ASST Pavia; <sup>2</sup>Laboratorio Analisi, Ospedale di Voghera, ASST Pavia; <sup>3</sup>Scuola di Specializzazione in Microbiologia e Virologia, Università degli Studi di Milano; <sup>4</sup>S.C. Medicina Generale, Dipartimento di Area Medica, Fondazione IRCCS Policlinico S. Matteo di Pavia, Italy

Donna 83 anni. APR: FA cronica, portatrice di PM, IRC, artrite reumatoide, ip. arteriosa, AOCP severa. APP: gennaio 2017 PTA multiple arto inf. dx in AOCP IV stadio. Successivo trasferimento c/o reparto di riabilitazione (tp. alla dimissione associata a riscontro di pancitopenia con gravissima neutropenia (WBC 70/mcl N 0%; plt 13000/mcl; Hb 7,8 gdl) ed IRA su IRC con disionie. Rx torace negativo; non sintomi indicativi per IVU o inf. delle vie biliari; grave mucosite oro-faringea. Ricoverata c/o la Nostra UO per verosimile sepsi severa in grave neutropenia. Eseguite emocolture ed iniziata immediatamente tp. antibiotica con imipenem-vancomicina ed antimicotica con fluconazolo e.v. Praticato inoltre supporto trasfusione e nutrizionale e.v. Nonostante la terapia praticata progressivo peggioramento clinico con exitus in III giornata di degenza. Successivo isolamento dalle emocolture di *Capnocytophaga* spp, sensibile alla tp. in atto. Abbiamo scelto la presentazione di questo caso clinico vista la tipologia molto rara di germe isolato in corso di sepsi grave (*Capnocytophaga* a verosimile partenza dal cavo orale della paziente) e rappresentativo di come l'esecuzione di procedure invasive e l'eccessiva polifarmacoterapia in pazienti molto fragili ed anziani possa essere cause di complicanze molto gravi, talvolta fatali.

### Expression of p53 and FAS in patients with long-standing ulcerative colitis active

P. Crispino<sup>1</sup>, M. Zippi<sup>2</sup>, C. Cassieri<sup>3</sup>, R. Pica<sup>2</sup>, D. Colarusso<sup>1</sup>

<sup>1</sup>Internal and Emergency Medicine, San Giovanni Hospital, Lagonegro (PZ); <sup>2</sup>Gastroenterology Unit, Sandro Pertini Hospital, Rome; <sup>3</sup>Gastroenterology Unit Columbus Hospital, Rome, Italy

**Background:** Ulcerative colitis (UC) is a chronic, relapsing inflammatory bowel disease with an high risk for developing colorectal

cancer especially in patients with long-standing course. Endoscopy surveillance is helpful to stratify the individual risk but the role of some biomarker alteration has not clear determined. Aim of the study is describe the pattern of Fatty acid synthase (FAS), p53 in colonic epithelia of long-standing UC.

**Methods:** Data were obtained from histological specimen obtained by 60 long-standing UC patients analyzed at ten and twenty years of follow-up.

**Results:** The p53 was strong positive in 30 patients at 10 years and in 20 patients at 20 years, while 30 patients had positivity for FAS at 10 years and 36 patients at 20 years. The grade of glandular distortion and the course of disease, are significantly correlated with p53 and FAS overexpression in epithelial cells.

**Conclusions:** Our findings indicated that long-standing there is an high expression of p53 and FAS with a correlation with architectural distortion and disease's severity. FAS remained overexpressed suggesting a persistent activation of alternative anaerobic metabolism.

### An unusual recurrence of gastrointestinal bleeding in a young healthy man

P. Crispino<sup>1</sup>, M. Zippi<sup>2</sup>, C. Cassieri<sup>3</sup>, R. Pica<sup>2</sup>, D. Colarusso<sup>1</sup>, G. Minervini<sup>1</sup>, A. Schiava<sup>1</sup>, B. Tripodi<sup>1</sup>, G. Cimino<sup>1</sup>

<sup>1</sup>Internal and Emergency Medicine, San Giovanni Hospital, Lagonegro (PZ); <sup>2</sup>Gastroenterology Unit, Sandro Pertini Hospital, Rome;

<sup>3</sup>Gastroenterology Unit Columbus Hospital, Rome, Italy

**Clinical cases:** We report the case of a healthy young man of 45 years, FANS habitual consumers, with had multiple hospitalizations for severe digestive bleeding requiring transfusions for symptomatic iron deficiency anemia, and in which conventional endoscopic studies showed the absence of suspected bleeding lesion excepts persistent erosive gastritis. Despite PPI therapy, he was readmitted with bleeding referring in this occasion sporadic nocturnal abdominal pain. We performed a enteroclysis computerized tomography that reveal a sub-stenosing segmental lesion of the jejunum. A diagnosis of gastrointestinal stromal tumor (GIST) was performed. We performed a treatment of intestinal segmental resection. After 4-years of follow up patients not referred other bleeding episode.

**Conclusions:** GIST are the most common soft tissue sarcomas of the digestive tract. They are usually found in the stomach (60-70%) and small intestine (25-30%) The symptoms present at diagnosis are, gastrointestinal bleeding, abdominal pain, intestinal obstruction. The type of symptomatology will depend on the location and size of the tumor. In our experience the use of computed tomography has shown to be an important tool in the diagnosis with patients with small intestine GISTs.

### Non-invasive ventilation for treatment of respiratory failure in blunt thoracic trauma. Analysis of a retrospective cohort study and review of current literature

A. Crociani<sup>1</sup>, E. Ferretti<sup>1</sup>, C. Florenzi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, G. Cioni<sup>1</sup>, E. Blasi<sup>1</sup>, G. De Marzi<sup>1</sup>, F. Luise<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

**Background:** Non invasive ventilation (NIV) is widely used to treat acute episode of respiratory failure due to many etiologies and to avoid endotracheal intubation and invasive ventilation which are related to higher morbidity and mortality. The role of NIV in blunt thoracic trauma is not yet well defined, mostly because of lacking evidence from large, randomized and controlled trials.

**Objectives:** Evaluate the safety and efficacy of NIV in selected blunt thoracic trauma patients in a medical Intermediate Care Unit.

**Methods:** Retrospective study of 30 blunt thoracic trauma patients initially treated with NIV.

**Results:** Patients were mostly elderly, NIV lead to an increase of PaO<sub>2</sub> and PaO<sub>2</sub>/FIO<sub>2</sub> ratio and a reduction of PaCO<sub>2</sub>, applied FIO<sub>2</sub> and breathing rate. No significant complications, particularly pneumothorax, were observed. The only death was mostly due to patient's comorbidity rather than real NIV defeat. We found early physiotherapy program well related with significative reduction of length in Sub Intensive Care Unit stay.

**Conclusions:** In our experience, when applied in selected patients

and adequate environment, NIV demonstrated its safety and efficacy in improving the respiratory function in blunt thoracic trauma patients.

### Mr Addison, Mrs Lazarus and the power of steroids!

A. Crociani<sup>1</sup>, E. Blasi<sup>1</sup>, G. De Marzi<sup>1</sup>, L. Corbo<sup>1</sup>, G. Cioni<sup>1</sup>, S. Baroncelli<sup>1</sup>, C. Florenzi<sup>1</sup>, F. Bacci<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>, A. Peris<sup>2</sup>, L. Bonizzoli<sup>2</sup>, G. Cianchi<sup>2</sup>

<sup>1</sup>ACA 1, Firenze; <sup>2</sup>TIDET, Firenze, Italy

A 34 years old woman came to the emergency department for a confusional state following the recent onset in the past few days of nausea and diarrhea. Her PMH contained celiac disease and thyroiditis on treatment. At the arrival her vital signs showed hypotension and bradycardia soon followed by loss of consciousness accompanied by asystole at the EKG-monitor. Blood samples showed severe hyperkalemia. Advanced life support was started and ROSC was obtained after 20 minutes of CPR. The finding of hyperkalemia rise the suspicion of adrenal crisis so that empirical steroidal treatment was started while blood samples for serum ACTH and cortisol levels were taken. ACTH serum levels were high and serum cortisol was low, so the diagnosis of acute addison crisis was confirmed. Appropriate therapy was started and the patient was discharged after 10 days of in-hospital stay. Among the steroids produced in the adrenal cortex, aldosterone and cortisol are the most important. Addison disease may present as chronic disease or as acute adrenal crisis. Suspicion should be rised by the presence of other autoimmune disease in the PMH, by laboratory findings and in case of unexplicable shock poorly responsive to fluid and pressor resuscitation. The diagnosis is often elusive and delay in treatment can cause poor outcome.

### An elderly patient with toxic epidermal necrolysis after allopurinol treatment

D. D'Ambrosio<sup>1</sup>, L. Tibullo<sup>1</sup>, S. Cioffo<sup>1</sup>, S. Auletta<sup>1</sup>, P. Orefice<sup>1</sup>, V. Vatiro<sup>1</sup>, F. Ievoli<sup>1</sup>

<sup>1</sup>UOC Medicina Generale, Presidio Ospedaliero, Aversa (CE), Italy

**Introduction:** Toxic epidermal necrolysis (TEN) is defined by epidermolysis covering  $\geq 30\%$  of the body surface area, most likely caused by drugs. It leads to infection, large fluids shifts, less of thermoregulation and electrolyte imbalance with a mortality rate of  $>30\%$ .

**Case report:** A 85-year-old woman with congestive heart failure, cerebrovascular and chronic kidney diseases, and hyperuricemia in allopurinol treatment from two weeks, was hospitalized for resistant fever. The exams revealed increased CRP, leukocytosis and growth of ESBL-producing E. Coli in urine culture. After two days from admission she developed widespread skin eruptions, buccal and conjunctive mucositis. Clinical picture was suggestive for TEN, with diagnosis confirmed by skin biopsy. Despite the withdraw of allopurinol and the start of supportive care, carbapenems and immunomodulatory therapy (systemic corticosteroids and immunoglobuline), the patient developed a multiorgan failure and died one week later.

**Discussion:** Allopurinol is a high-risk drug for TEN and the pathophysiology is incompletely understood. Principal management is early diagnosis and cessation of the culprit drug, as well as supportive care. The severe comorbidity and frailty of our patient contributed to the worst outcome as well as the inability to promote other experimental therapies for the concurrent low urinary tract infection.

**Conclusions:** The gaps in the knowledge of the mechanism of TEN and the lack of randomised control trials of pharmacological interventions makes difficult to face up this life-threatening manifestation.

### A controversial management of pulmonary embolism in a young thrombophilic woman

D. D'Ambrosio<sup>1</sup>, L. Tibullo<sup>1</sup>, A. Benincasa<sup>1</sup>, G. Fabozzi<sup>1</sup>, R. Fabozzi<sup>1</sup>, V. Vatiro<sup>1</sup>, F. Ievoli<sup>1</sup>

<sup>1</sup>UOC Medicina Generale, Presidio Ospedaliero, Aversa (CE), Italy



**Introduction:** CHEST guidelines suggest novel oral anticoagulations over warfarin in patients with pulmonary embolism (PE) and no cancer. Hereditary thrombophilia is not referred as a critical condition for a different therapy.

**Case report:** A 38-year-old woman with FII G20210A and FV Leiden mutations and one month ago diagnosis of PE in dabigatran treatment was admitted for dyspnea. The laboratory tests revealed increased D-dimer levels and hypossiemia, echocardiography was normal, pulmonary CT angiography highlighted the persistence of bilateral PE. We switched dabigatran with rivaroxaban, assuming a major anticoagulant effect of this therapy through an inhibition at a higher target in the coagulation cascade in this particular thrombophilic condition. We obtained an improvement of the symptoms and a normalization of D-dimer levels, the CT angiography after a month showed a disappearance of PE.

**Discussion:** No data is currently available for the primary prevention of PE in hereditary coagulation disorders. There is a limited experience for the treatment or secondary prevention of PE in these patients from the EINSTEIN PE and RECOVER/RECOVER II trials as they were not excluded. Our strategy started from a lack of clinical and radiological improvement with dabigatran and from a pathophysiological speculation in absence of current standardized laboratory monitoring and experimental data.

**Conclusions:** It will be needed randomized clinical trials, an assessment of selected qualitative and quantitative tests, and development of monitoring strategies for these special populations.

### A 35-year-old woman with ulcerative colitis and pulmonary nodules

D. D'Ambrosio<sup>1</sup>, L. Tibullo<sup>1</sup>, A. Benincasa<sup>1</sup>, S. Damiano<sup>1</sup>, M.D. Concilio<sup>1</sup>, V. Vatiro<sup>1</sup>, F. Ievoli<sup>1</sup>

<sup>1</sup>UOC Medicina Generale, Presidio Ospedaliero, Aversa (CE), Italy

**Introduction:** Ulcerative colitis (UC) underlies an impaired inflammation control by immune system. The subsequent inflammatory process may extend outside the bowel to many organs and also to the respiratory tract.

**Case report:** A 35-year-old woman was admitted to our hospital because of fever, dyspnea, cough and episodes of rectal bleeding. The laboratory exams revealed low hemoglobin count, hypoalbuminemia, increase C-reactive protein and leukocytosis, Mantoux test was negative, other tests were normal. Chest x-ray showed lung nodules suspected for metastases. Total body computed tomography showed severe thickening and narrowing of the wall of the descending colon, sigma and rectum, a finding consistent with UC, and multiple lung nodules, measuring up to 23 mm, with contrast enhancement. The colonoscopy confirmed the UC diagnosis and we speculated a respiratory involvement in UC. She started steroid drugs with improvement of rectocolitis and radiological evolution of nodules in necrobiosis until to their disappearance.

**Discussion:** The respiratory involvement in UC may be completely asymptomatic and detected only at lung function assessment, or it may present as bronchial disease or lung parenchymal alterations. Sterile necrobiotic nodules are a rare manifestation related to UC activity and both respond to steroid therapy.

**Conclusions:** It is thus important to maintain a watchful interest in all aspects of lung illnesses in association with any form of bowel disease. Early detection is important as both the alveolar and airway disease often respond well to steroid treatment.

### Un insolito caso di embolia polmonare

M.M. D'Errico<sup>1</sup>, D. Graziano<sup>1</sup>, V. Massa<sup>1</sup>, S. Curci<sup>2</sup>, M. Grilli<sup>2</sup>, A. Mirijello<sup>2</sup>, V. D'alejandro<sup>2</sup>, M. La Viola<sup>2</sup>, M. Cassese<sup>3</sup>, A. Greco<sup>4</sup>, G. Serviddio<sup>1</sup>, G. Vendemiale<sup>1</sup>, S. De Cosmo<sup>2</sup>

<sup>1</sup>Scuola di Specializzazione in Medicina Interna e Geriatria, Università di Foggia; <sup>2</sup>U.O. di Medicina Interna, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>3</sup>U.O. di Cardiocirurgia, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>4</sup>U.O. di Geriatria, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG), Italy

**Background:** Il riscontro ecocardiografico di trombi fluttuanti in atrio destro rappresentano una emergenza clinica per l'elevato rischio di embolia polmonare e, in caso di forame ovale pervio

(PFO), di embolia paradossa e ictus. Il 25% della popolazione presenta una pervietà del forame ovale. Può essere misconosciuto per tutta la vita e, in caso di eventi tromboembolici, può causare l'ictus.

**Materiali e Metodi:** Riportiamo qui il caso di una embolia polmonare e di una embolia paradossa incidentali, mettendo in evidenza come il corredo sintomatologico può non associarsi alla reale gravità del quadro clinico. Un signore di 58 anni giunge alla nostra osservazione per febbre e sospetta polmonite.

**Risultati:** Le indagini hanno portato alla diagnosi di embolia polmonare e di embolia paradossa. L'ecocardiografia rivela un grosso trombo in atrio destro e pone il sospetto di PFO. Il paziente viene sottoposto ad un intervento cardiocirurgico in urgenza con trombectomia in atrio destro, trombectomia nell'arteria polmonare e chiusura del PFO. L'anamnesi personale era priva di fattori di rischio per eventi trombotici mentre la sua anamnesi familiare suggeriva la possibilità di una trombofilia familiare misconosciuta.

**Conclusioni:** L'evidenza di emboli in atrio destro che attraversano il PFO è un evento raro. Il tasso di mortalità intraospedaliera è del 44,7%. La prognosi migliora nettamente con l'intervento cardiocirurgico di asportazione del trombo, chiusura del PFO e nel trattamento della trombofilia.

### Artrosi erosiva (malattia di Crain): descrizione di un caso clinico con pregressa diagnosi di artrite reumatoide

T. D'Errico<sup>1</sup>, G. Italiano<sup>2</sup>, A. Maffettone<sup>3</sup>, C. Ambrosca<sup>1</sup>, M. Varriale<sup>1</sup>, S. Carbone<sup>1</sup>, M. Visconti<sup>4</sup>, S. Tassinario<sup>1</sup>

<sup>1</sup>UOC Medicina Interna DH Reumatologia, P.O. "S.M.d.P. degli Incurabili", ASL Napoli 1 Centro; <sup>2</sup>UOC Medicina Interna, Azienda Ospedaliera "S. Anna e San Sebastiano", Caserta; <sup>3</sup>UOC Medicina Interna, Ospedale "Vincenzo Monaldi", Azienda dei Colli, Napoli; <sup>4</sup>Primario Emerito, ASL Napoli 1 Centro, Italy

La M. di Crain è una variante artrosica con caratteri erosivi ad evoluzione tumultuosa che impegna le articolazioni interfalangee distali (IFD), prossimali (IFP) e più raramente le trapezio-metacarpali delle mani, con anchilosi; prevale nel sesso femminile nella V e VI decade. Il dolore, le tumefazioni, la funzione lesa all'esordio, rendono difficile la diagnosi differenziale con forme reumatoidi o psoriasiche; i caratteri delle erosioni, la normalità degli indici di flogosi ed autoimmuni, consentono di distinguere tali forme da quelle erosive sistemiche.

**Caso clinico:** Nel 2004 si è presentata alla nostra osservazione donna di 54 anni in discrete condizioni generali, con diagnosi di AR dal 2003 trattata con MTX 15 mg/sett, folina e steroide, che da 3 settimane aveva realizzato un episodio sinovite alle IFP del II, III e IV raggio a dx e delle IFD del IV e V raggio a sin. Alla nostra osservazione normali gli indici di flogosi, incremento di GOT e GPT (4X), RA test, anti CCP e ANA assenti. L'Rx mani ha mostrato erosioni alle IFD e alterati rapporti articolari, erosioni a "volta" alle IFP. È stata posta diagnosi di M. di Crain e prescritta terapia con anti-COX 2, condroprotettori e FKT. A 6 mesi moderato miglioramento del quadro clinico.

**Conclusioni:** Il caso suggerisce che di fronte ad una condizione articolare che mostri aspetti erosivi, la diagnosi differenziale all'esordio è spesso difficile e confondente. La M. di Crain prevede un trattamento con FANS, analgesici, condroprotettori e FKT, che sembrano migliorare il decorso della malattia; il trattamento con DMARDs può essere riservato a casi particolari con sinovite severa e ricorrente.

### Robotics and domotics for the assistance of Alzheimer's disease patients

G. D'onofrio<sup>1</sup>, D. Sancarlo<sup>1</sup>, F. Cavallo<sup>2</sup>, F. Ricciardi<sup>3</sup>, F. Giuliani<sup>3</sup>, A. Greco<sup>1</sup>

<sup>1</sup>Complex Structure of Geriatrics, Department of Medical Sciences, IRCCS "Casa Sollievo della Sofferenza", San Giovanni Rotondo, Foggia; <sup>2</sup>BioRobotics Institute, Scuola Superiore Sant'Anna, Pontedera; <sup>3</sup>ICT, Innovation and Research Unit, IRCCS "Casa Sollievo della Sofferenza", San Giovanni Rotondo, Foggia, Italy

**Background and Aim:** Dementia is a term that describes disorders causing cognitive impairment capable to significantly affect func-

tional status. Alzheimer's disease (AD) is the most common form of dementia and represents one of the major causes of disability, dependency, burden and stress of caregivers increasing institutionalization among older people worldwide. There has been significant progress in using Information and Communication Technologies (ICT) in the field of healthcare and in particular of AD; in particular, a great effort has been addressed by researchers in order to develop enabling domestic and robotic solutions that are cost-effective. The main contribution of this presentation is to evaluate the effectiveness and impact of ICT that can address the needs of the patients with AD in hospital and directly at home.

**Material and Methods:** The input will be focused on domestic and service robotics in assisted living environments which can help patients with AD to remain active and independent for longer.

**Results:** The contribution intends to set up a platform for future researches on issues like loneliness, isolation and AD through multifaceted interventions delivered by domestic and service robots. The possibility of replacing a significant amount of human care for the elderly and people with AD by robots underlines concerns about the role of technology in human life.

**Conclusions:** The contribution underlines discussion on more law oriented questions regarding the social status of the people with AD in society and society's allocation of resources to their needs.

### Papilledema associated to subclinical hypothyroidism: a new finding

F. Dazzani<sup>1</sup>, M. Piscaglia<sup>1</sup>, R. Romagnoli<sup>1</sup>, P. Giacomoni<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale di Lugo (RA), Italy

**Introduction:** Papilledema is the hallmark of pseudotumor cerebri (PTC), a syndrome characterized by elevated intracranial pressure with normal MRI scan and cerebrospinal fluid. Here we describe a case associated with subclinical hypothyroidism.

**Case report:** A 60 year old woman was admitted to our unit for persisting headache associated to visual disturbance in the last 3 days. Blood pressure, standard laboratory tests and PCR were in range. A TC brain scan showed no abnormalities, while on neurological examination she presented bilateral papilledema with enlargement of blind spot at visual fields: brain MRI resulted normal. A lumbar puncture revealed elevation of cerebral fluid pressure, normal levels in glucose, cells and proteins. Therapy with steroid was then started, obtaining mild headache's relief. Blood analysis showed mild increased TSH level (6,26 mIU, nn 0,2-5), normal FT4, presence of Anti TPO antibodies, configuring a subclinical hypothyroidism in chronic autoimmune thyroiditis. Other infectious and immunological diseases were excluded by blood and cerebral fluid analysis. Treatment with L-thyroxine was then associated: patient's visual and neurological examination progressively improved, followed by reduction and suspension of steroid therapy.

**Conclusions:** Endocrine pathologies have been reported in association with PTC, but the role of subclinical hypothyroidism was never emphasized: since our patient significantly ameliorated after the beginning of L-thyroxine supplementation, we think that a role of subclinical hypothyroidism in PTC should be considered

### A multi-etiological cerebellar stroke: diagnosis and management

F. Dazzani<sup>1</sup>, R. Romagnoli<sup>1</sup>, M. Ronchi<sup>1</sup>, P. Giacomoni<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale di Lugo (RA), Italy

**Introduction:** Cerebellar infarcts represent 2% of all ischemic strokes. Potential pathogeneses include cardiac emboli, large-vessel atherosclerosis, vertebral artery dissection, local arterial disease, hypercoagulable conditions, vasculitis, venous sinus thrombosis, and drug use. Here we describe a case which recognized multiple etiologies.

**Case report:** A 70 year old man was admitted to our unit for nausea, vertigo and ataxia. Blood pressure was normal, while laboratory tests showed high platelets count. A TC brain scan revealed a right cerebellar ischemic area, so that aspirin was started. A vascular and brain MRI was then performed showing bilateral areas of cerebellar infarction associated to minimal initial hemorrhagic evolution and a sellar neo-formation not involving chiasmatic re-

gion. Cardiac 24 hrs monitoring was negative for atrial fibrillation, transthoracic echocardiography was normal, while transcranial Doppler ultrasonography detected mild right-left shunt. Finally, haematological tests confirmed the suspected diagnosis of chronic myeloproliferative syndrome and hydroxyurea therapy was started. As the sellar neo-formation proved to be non-hormonal secreting, given the high thrombotic risk of therapy suspension for surgical biopsy, we decided for a MRI follow up. During the following months patient's neurological symptoms resolved.

**Conclusions:** Cerebellar infarcts recognize multiple potential causes, which should be investigated in order to reduce the diagnosis of "cryptogenic" stroke and to give the patient the most adequate management.

### Maggior associazione tra coronaropatia ed ateromasi dei vasi intracranici rispetto alla ateromasi dei vasi epiaortici

P. De Campora<sup>1</sup>, A. Fontanella<sup>2</sup>, G. Malferrari<sup>3</sup>, R. Sangiuolo<sup>1</sup>

<sup>1</sup>UOC Cardiologia-UTIC, Ospedale Fatebenefratelli, Napoli; <sup>2</sup>UOC Medicina Interna, Ospedale Fatebenefratelli, Napoli; <sup>3</sup>UOC Neurologia, Arcispedale S. Maria Nuova, Reggio Emilia, Italy

**Premessa:** In molti pazienti la malattia aterosclerotica interessa contemporaneamente più distretti vascolari.

**Obiettivo della ricerca:** Investigare con metodiche ecografiche in soggetti coronaropatici - la presenza di lesioni aterosclerotiche a carico dei distretti cervicale ed intracranico.

**Metodi:** Nel nostro studio sono stati arruolati 2 gruppi di soggetti: il I composto da 30 pazienti di sesso maschile (gruppo A di età 60+/- 10 anni) che hanno sperimentato una sindrome coronarica acuta nei 30 giorni precedenti l'indagine. Il II gruppo (gruppo B) controllo composto da 30 soggetti sani. Entrambi i gruppi sono stati sottoposti ad ecografia dei tronchi sovra-aortici e transcranica. Criteri di esclusione, precedenti eventi cerebrovascolari. Altro criterio di esclusione, finestre ecografiche inadatte.

**Risultati:** Il 30% dei pazienti coronaropatici ha mostrato la presenza di ateromasi intracranica. Nel 20% di essi coesistevano placche carotidiche. Assenza di alterazioni significative nel gruppo controllo.

**Conclusioni:** La coronaropatia frequentemente si associa ad ateromasi cerebrale asintomatica. Nel nostro lavoro abbiamo riscontrato - nei pazienti infartuati - un maggior interessamento aterosclerotico dei vasi cerebrali superiore rispetto a quanto osservato nel distretto cervicale. Ciò dovrebbe comportare, nei soggetti che hanno sperimentato eventi coronarici, uno screening diagnostico ecografico vascolare esteso al distretto intracranico.

### Association between *Streptococcus gallolyticus* infection and colon cancer: a case report

M.T. De Donato<sup>1</sup>, M. Marracino<sup>1</sup>, R.M. De Vecchi<sup>1</sup>, G. La Mura<sup>2</sup>, L. La Mura<sup>3</sup>, M. Renis<sup>4</sup>

<sup>1</sup>U.O.C. Medicina, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>2</sup>Cardiologo, P.O. Scafati, A.S.L. Salerno; <sup>3</sup>Università Napoli "Federico II"; <sup>4</sup>U.O.C. Medicina, P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno, Italy

**Introduction:** *Streptococcus gallolyticus* (S.G) is responsible for sepsis/endocarditis in a particular category of patients, which may have colonic cancer, still misunderstood. In view of this finding, individuals with positive blood culture for this pathogen, are currently recommended to undergo colonoscopy.

**Clinical case:** F, 60. Undifferentiated diffuse colonic cancer (signet-ring cells, with positivity of estrogen receptors), diagnosed a year before, never undergone surgery, but undergone chemotherapy. Hospitalization in Internal Medicine department for fever and severe anemia at inflammatory genesis (elevated inflammatory markers), then subjected to blood transfusion. Positive blood culture for S.G. Echocardiography: aortic valve endocarditis. Antibiotic therapy according to antibiogram: disappearance of fever and improvement in blood counts.

**Discussion:** Literature has documented association between endocarditis caused by S.G. and colon cancer, so that, in case of positive blood culture for this pathogen, it is recommended the execution of colonoscopy for the search of the colon cancer.

**Conclusions:** The interest of the case arises, in our opinion, by the fact that, on the basis of this experience, you might highlight the two-way nature of the recommendation; ie, in patients with colonic cancer who present sepsis, it should be recommend to also perform an echocardiogram, as a first level investigation, and, while waiting for the results of blood culture, it should be recommend to practice empirical therapy against S. G.

### Un caso di malattia della ferroportina

A. De Palma<sup>1</sup>, F. Casalino<sup>2</sup>, M. Alessandri<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Massa Marittima (GR); <sup>2</sup>Centro Trasfusionale, Massa Marittima (GR), Italy

P.C., uomo 50 anni, giunge alla nostra osservazione per il riscontro casuale di ferritina 1638 ng/ml. Per la diagnosi differenziale delle iperferritinemie eseguiva Transferrina (221 mg/dl), TS (31%), AST (114 U/l), ALT (156 U/l),  $\gamma$ -GT (121 U/l), HbA1c (75 mmol/mol); una RMN addome documentava steatosi spiccata ed accumulo di Fe intraepatico ai limiti superiori; un'agobiopsia epatica concludeva per un quadro di steatoepatite 2° e siderosi kupfferiana (compatibile con emosiderosi HH tipo 4). Il sovraccarico primario di Fe è rappresentato dall'Emocromatosi ereditaria di cui esistono 4 tipi; l'HH tipo 4, quadro noto come malattia della ferroportina, è determinato da una mutazione di questa proteina con perdita di funzione; differisce da altre forme per avere una trasmissione AD. Clinicamente, nella forma classica, si osserva una spiccata iperferritinemia, una bassa TS, un accumulo di ferro nei macrofagi del fegato, un risparmio degli epatociti. Non c'è consenso nel trattare le forme di sovraccarico di Fe; nei quadri sintomatici la salassoterapia è il trattamento di scelta; previene lo sviluppo del danno d'organo, cirrosi epatica in primis, migliorando significativamente la sintomatologia. Nelle forme di grave sovraccarico può essere praticata la eritrocitoferesi; nelle anemie ci si può avvalere della somministrazione di chelanti del Fe quali deferoxamina. Il paziente attualmente segue una dieta ipoglicidica di 1600 Kcal e salassi periodici con riduzione Ferritina a 568 ng/ml.

### Influenza A H1N1 virus-related pneumonia progressed to ARDS treated with extracorporeal membrane oxygenation clinical success

D. Degl'Innocenti<sup>1</sup>, K. Luzzi<sup>2</sup>, L. Zamidei<sup>3</sup>, A. Marcantonio<sup>1</sup>, D. Bruni<sup>1</sup>, G. Consales<sup>3</sup>, G. Bini<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale S. Stefano, Prato; <sup>2</sup>U.O. Malattie Infettive, Ospedale S. Stefano, Prato; <sup>3</sup>U.O. Rianimazione, Ospedale S. Stefano, Prato, Italy

Influenza A H1N1 virus-related pneumonia is one of the most common viral causes of community-acquired pneumonia in adults. The clinical progression in acute respiratory distress syndrome (ARDS) is probably attributable to an interrelation between the degree of virulence of the pathogen, risk factors and host comorbidities. Fiftyfive year-old male, caucasian, smoker, overweight (BMI 29.4) is referred to the emergency department for persistent fever, non-productive cough, worsening dyspnea, polyuria, polydipsia of recent onset. On examination: crackling right lung base; rhythmic heart action. A chest radiograph: mean field right lung consolidation. Blood tests: CRP 11 mg/dL, GB 4.2  $10^3/\mu$ l, Procalcitonin <0.05 ng/ml, blood glucose 410 mg/dL, Na<sup>+</sup> 128 mEq/L, K<sup>+</sup> 3.4 mEq/L, LDH 379 IU/L, fibrinogen 628 mg/dL, NT-proBNP <15 pg/mL; negative streptococcus pn. and legionella pn. urinary antigens; blood gases: 7.46 pH, PaO<sub>2</sub> 53.4 mmHg, PaCO<sub>2</sub> 29.5 mmHg, HCO<sub>3</sub><sup>-</sup> 22.8 mEq, lactic acid 3.4 mmol/L; virus type influenza A H1 N1 detected on nasal-pharyngeal swab (RT-PCR). The patient for hypoxemic respiratory failure worsened and multiple bilateral pulmonary consolidations chest CT appearance is transferred to intensive care. He is treated with antiviral therapy, non-invasive mechanical ventilation, high flow oxygen. In ICU he presents further clinical worsening (refractory hypoxemia and hemodynamic compromise. Once invasively ventilated the patient is transferred to intensive care of Careggi-Firenze where he will be treated with extracorporeal membrane oxygenation (ECMO) clinical success.

### Bowel obstruction and watery diarrhea in a new mother

G.C. Del Buono<sup>1</sup>, C. Mancini<sup>1</sup>, C. Giordano<sup>2</sup>, C. Politi<sup>3</sup>

<sup>1</sup>U.O.C. Medicina Interna, Isernia; <sup>2</sup>UOC Ematologia, Ospedali Riuniti, Foggia; <sup>3</sup>U.O.C. Medina Interna, Isernia, Italy

**Background and Purpose of the study:** The diagnosis of eosinophilic gastroenteritis (GE) requires a complex diagnostic work-up but necessary to the timely treatment.

**Materials and Methods:** A 27yr young woman with a recent Caesarean section (35 days), was observed for fever, watery diarrhea and vomiting, followed by anorexia, increasing abdominal volume and bowel obstruction. The gynecological consultation showed no gynecological diseases. Ultrasound revealed splenomegaly and ascites; the TC revealed wall thickening of the gastric organ and some loops of small intestine suggestive for malignancy of the lymphatic series. JAK2, BCR-ABI CD34+ were absent. We observed rising Ca125 and beta-2 microglobulin; WC 16260 with 38.6% eosinophils; EGDS revealed an hyperaemic and edematous gastric mucosa with presence at histological examination of eosinophils in swarms at lamina propria level. Ascites examination revealed: granulocytes carpet as purulent exudate.

**Results:** The inpatient steroid therapy (methylprednisolone iv, then orally in escalating doses) achieved significant improvement: clinical symptoms resolved, ascites disappeared; the patient returned to normal diet.

**Conclusions:** GE is a disease difficult to diagnose in the absence of a well defined clinical and instrumental picture; diagnostic confirmation is provided only with cyto-histological analysis of samples taken during the investigation.

### An atypical presentation of Cytomegalovirus infection

M. Di Lillo<sup>1</sup>, M. Moretti<sup>2</sup>, B. Pieretti<sup>2</sup>

<sup>1</sup>Pronto Soccorso; Medicina d'Urgenza, Azienda Ospedali Riuniti Marche Nord, Fano (PU); <sup>2</sup>Patologia Clinica, Azienda Ospedali Riuniti Marche Nord, Fano (PU), Italy

**Introduction:** We describe an atypical presentation of Cytomegalovirus (CMV) infection in a immune-competent male admitted to the ER.

**Case presentation:** A 43 yo male arrives to ER complaining of a deteriorating history of shortness of breath and fatigue started 20 days before the admission. At the physical no relevant findings detected. Laboratory tests: D-dimer >1400 ng/ml persistently high for a three months follow-up, high lymphocyte count (67%) mostly LGL (large granular lymphocytes) by microscopy morphology, ALT twice the reference range. EKG: no alteration of Q, ST waves; Echocardiogram: normal pulmonary pressure, normal kinetics of both sides cameras; Venous Doppler lower limbs: normal; CT pulmonary angiogram: no thrombi, no PE findings; Abdominal echography: no abnormal findings. Furthermore an extensive laboratory battery test for thromboembolism risk was also negative. Because of LGC findings we started to searching for infectious etiologies. Besides the patient recalled of a flu episode two weeks before respiratory symptoms appeared. The virology tests showed the presence of IgG and IgM against CMV. The avidity of IgG was low, meaning a recent infection episode but CMV was not find in the urine specimen. After two months the lymphocyte count was normal and the avidity test switched to high level showing the infection has been close to the time of first admission.

**Conclusions:** Even if in this patient we couldn't detect a thromboembolic event the high persistent d-dimer level suggested that the CMV infection can induce a pro-thrombotic state even in immune-competent pts.

### Un nuovo ruolo della ecografia bedside nel dolore addominale

F. Di Mare<sup>1</sup>, C. Fiorelli<sup>1</sup>, A.A. Fabbroni<sup>1</sup>, E. Leolini<sup>1</sup>, F. Burberi<sup>1</sup>, G. Tavernese<sup>1</sup>, F. Vietti<sup>1</sup>, L. Colasanti<sup>1</sup>, I. Petri<sup>1</sup>, L. Marchi<sup>1</sup>, S. Sbaragli<sup>1</sup>, V.M. Chisciotti<sup>1</sup>, G. Lorenzini<sup>1</sup>, A. Bribani<sup>1</sup>

<sup>1</sup>Medicina Interna; Pronto Soccorso, Ospedale Serristori, USL Centro Toscana, Figline Valdarno (FI), Italy

**Premesse e Scopo dello studio:** In letteratura sono apparsi studi sull'utilità della TC nel sospetto di addome acuto da diverticolite ed appendicite. D'altra parte, il ruolo cardine dell'esame ecografico clinico è a tutt'oggi riportato in numerosi studi retrospettivi di confronto. In questo studio riportiamo l'esperienza della pratica quotidiana nella diagnosi in regime di urgenza di appendicite e diverticolite nel paziente con algia addominale acuta.

**Materiali e Metodi:** Da novembre 2016 abbiamo selezionato 27 pazienti con diagnosi di diverticolite (15) ed appendicite (12) confrontando i reperti di imaging di una ecografia clinica, ecografia radiologica, rx diretta dell'addome e TC diretta senza o con mdc ev.

**Risultati:** Tra i 12 pazienti con appendicite acuta complicata, 10 sono stati condotti al tavolo operatorio sulla scorta di reperti ecografici clinici positivi, confermati all'istologia; nei rimanenti 2 è stata eseguita TC addome diretta o con mdc ev con riscontro di appendicite retrocecale. Tra i 15 pazienti con diverticolite, 6 avevano una forma non complicata diagnosticata con una ecografia clinica, nonostante un rx addome ed una ecografia radiologica negativa. Nei restanti 9 che mostravano segni clinici ed ecografici di complicanza è stata eseguita TC diretta o con mdc ev che ha confermato i sospetti.

**Conclusioni:** Nella nostra esperienza l'ecografia clinica è stata efficace nella diagnosi di diverticolite (40%) ed appendicite (80%), mentre l'esame TC è stato riservato ai casi di diverticolite acuta complicata e nei pazienti con appendicite retrocecale.

### Una nuova sonda ecografica per la ricerca dei versamenti pericardici nelle pericarditi acute in Medicina Interna e pronto soccorso

F. Di Mare<sup>1</sup>, C. Fiorelli<sup>1</sup>, F. Furber<sup>1</sup>, L. Colasanti<sup>1</sup>, L. Marchi<sup>1</sup>, I. Petri<sup>1</sup>, E. Leolini<sup>1</sup>, F. Vietti<sup>1</sup>, A.A. Fabbioni<sup>1</sup>, G. Tanerese<sup>1</sup>, S. Sbaragli<sup>1</sup>, V.M. Chisciotti<sup>1</sup>, A. Bribani<sup>1</sup>

<sup>1</sup>Medicina Interna; Pronto Soccorso, Ospedale Serristori, USL Centro Toscana, Figline Valdarno (FI), Italy

**Premesse e Scopo dello studio:** La pericardite acuta è una patologia comune che pone diversi interrogativi e problemi gestionali. Uno dei quattro criteri diagnostici è il riscontro di un versamento pericardico. Quest'ultimo elemento è di fondamentale importanza nella diagnosi differenziale del dolore toracico e spesso è di grado lieve (<10 mm). In letteratura gli esami diagnostici utilizzati per visualizzare tale reperto sono: l'ecocardiogramma con sonda convex, rx torace e in pochi casi la TC torace o RM cardiaca. L'obiettivo del nostro studio è quello di confrontare la sensibilità diagnostica di imaging di un versamento pericardico di grado lieve tra l'ecocardiografia convenzionale con sonda settoriale con la valutazione ecografica del pericardio anteriore con sonda lineare ad alta frequenza.

**Materiali e Metodi:** Da ottobre 2016 abbiamo selezionato circa 27 pazienti con diagnosi di pericardite acuta con riscontro di versamento pericardico di grado lieve con studio del pericardio con ecocardiogramma convenzionale con sonda settoriale e con sonda lineare.

**Risultati:** Tra i 27 pazienti 17 di questi presentavano il riscontro di un lieve versamento pericardico sia all'ecocardiogramma che con sonda lineare. Gli altri 10 pazienti presentavano un versamento pericardico di pochi millimetri (<5 mm) visualizzabile solo con la sonda lineare e non con la sonda settoriale ecocardiografica.

**Conclusioni:** Nella nostra esperienza lo studio dei versamenti pericardici di grado lieve (<5 mm) mostra un'alta sensibilità diagnostica con lo studio ecografico con sonda lineare ad alta frequenza.

### Hospital-primary care integration to improve early diagnosis of chronic obstructive pulmonary disease: our experience

L. Di Napoli<sup>1</sup>, M.G. Coppola<sup>1</sup>, M. Spina<sup>1</sup>, P. Di Napoli<sup>2</sup>, M.F. Coppola<sup>1</sup>, G. Cascone<sup>1</sup>, L. De Riso<sup>1</sup>, C. Coppola<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Generale, Ospedali Riuniti, "Area Stabiese", Plesso Gragnano, Azienda Sanitaria Locale Napoli 3 Sud; <sup>2</sup>Dipartimento di Medicina Interna, Università degli Studi di Napoli Federico II, Napoli, Italy

Chronic obstructive pulmonary disease (COPD) remains substantially underdiagnosed in primary care and a major reason for this

is underuse of spirometry. Spirometry is the gold standard test for screening and evaluation of patients with suspected COPD.

**Methods:** 234 patients aged over 40 years (mean age 61±12., women 44,86%) with a history of smoking, or occupational exposure to toxic substances or at least one chronic respiratory symptom were recruited through the use of a questionnaire (age, smoking, presence of cough, respiratory sounds, dyspnea at rest and/or following exercise, previous diagnosis of asthma or COPD) at our pulmonology outpatient department and at 7 family medicine centers during 2 years. Of them only 37,64% had already performed the spirometry. 145 remaining patients underwent spirometry (our sample).

**Results:** In our sample 62.3% of patients had a smoking history, 34.7% had a history of exposure to toxic substances. The most common comorbid conditions were hypertension (44,33%), coronary artery disease (12,35%), diabetes and metabolic syndrome (12,76%), dyslipidemia (19,75%). Dyspnea from exercise was reported by 69.19% of patients. The spirometry was positive for COPD in 53.13% of patients (severity of airway obstruction: mild 33,09%, moderate 38,63%, severe 28,28% of COPD patients).

**Conclusions:** Case-finding in primary care increased the number of COPD identified patients by spirometry. Early diagnosis is considered important because it enables one to act immediately on the causes of disease (first of all, cigarette smoking) so as to impede or delay complications, relapses and progression of disease.

### Quando il passato ritorna: da un fallimento della ventilazione non invasiva a una diagnosi inaspettata di patologia onco-ematologica

M. Di Palo<sup>1</sup>, R. Gente<sup>1</sup>, E.M.R. Itto<sup>1</sup>, I.M. Gelsomino<sup>1</sup>, O. Nannola<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** L'insufficienza respiratoria ipercapnica è un'indicazione alla ventilazione non invasiva (Niv), ma l'uso della metodica si deve accompagnare alla ricerca della causa sottostante.

**Caso clinico:** Giunge in reparto uomo di 32 anni, per la comparsa, circa 15 giorni prima, di dispnea ingravescente, senso di costrizione al torace, edemi malleolari; anamnesi patologica remota muta, se non per precedente ricovero circa 10 anni prima per versamento pleurico di causa rimasta indeterminata e poi regredito. In p.s. il paziente, sulla base di elevati valori pressori e del riscontro radiologico di impegno interstizio-alveolare, aveva ricevuto terapia con morfina, diuretici, nitrati. In reparto, la persistenza di elevati valori di pCO<sub>2</sub> (102 mmHg) con paziente tendente ad addormentarsi consiglia la somministrazione di Naloxone e.v., Salbutamol e.v. e l'applicazione di Niv in modalità PSV, ma dopo 90', contrariamente alle aspettative, la pCO<sub>2</sub> è ancora di 101. Il paziente viene intubato e sottoposto a angioTc torace-addome-pelvi, che evidenzia estesa "colata" linfoghiandolare neoplastica interessante tutte le catene linfonodali mediastiniche e segni di linfangite neoplastica polmonare (verosimile linfoma).

**Discussione:** Gli elementi di interesse sono due: il precedente ricovero 10 anni prima quando già si era ipotizzato un linfoma, sono al riguardo descritte in letteratura remissioni spontanee di linfomi, in particolare dell'Hodgkin; poi la mancata risposta alla Niv, che in generale deve indurre a una revisione critica delle cause che sostengono l'insufficienza respiratoria.

### Una presentazione "acuta" di infezione da HIV: un caso di meningoccefalite da criptococchi cerebrale

M. Di Palo<sup>1</sup>, F. Cataldi<sup>1</sup>, D. D'auria<sup>1</sup>, M. Giordano<sup>1</sup>, F. Lionello<sup>1</sup>, O. Nannola<sup>1</sup>, M. Sacco<sup>1</sup>, L. Zirpoli<sup>1</sup>, P. Morella

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** L'epidemiologia attuale dell'infezione da Hiv è caratterizzata da un aumento rilevante dei casi nell'Europa dell'Est, per cui l'aumento dei flussi migratori richiede una sensibilizzazione sulle molteplici problematiche correlate all'infezione "sommersa".

**Caso clinico:** Paziente di 49 anni, sesso maschile, nazionalità ucraina, lamentando intensa cefalea, febbre, stato confusionale. Il soggetto peraltro aveva goduto sino ad alcuni giorni prima apparente buona salute, svolgendo un pesante lavoro manuale.

Esame obiettivo: irrequietezza motoria, modesta resistenza nucale, febbre (t 38.5°). Nella norma Rx torace e tc cerebrale, agli esami ematochimici solo lieve leucocitosi neutrofila. Eseguiti emocoltura e liquor, quest'ultimo risultava limpido e con solo modesta pleiocitosi all'esame chimico-fisico. Il test per HIV risultava positivo. Nei giorni successivi pervenivano i risultati degli esami culturali: quello del liquor risultava negativo, mentre l'emocoltura dimostrava sviluppo di *Cryptococcus Neoformans*.

**Discussione:** Significativo è risultato il contributo dell'emocoltura nella identificazione microbiologica in una situazione clinica in cui il liquor ha in genere un potere diagnostico superiore. Altro aspetto significativo è che il paziente si sia mantenuto apparentemente asintomatico sino all'esordio della meningoencefalite.

**Conclusioni:** L'andamento epidemiologico delle infezioni da HIV (in particolare in nazioni come l'Ucraina) deve essere tenuto presente nella valutazione di patologie acute o subacute che possono essere espressione di grave immunodeficit.

### Sepsi meningococcica ad esordio subdolo

M. Di Palo<sup>1</sup>, M. Carafa<sup>1</sup>, I.M. Gelsomino<sup>1</sup>, R. Gente<sup>1</sup>, M. Giordano<sup>1</sup>, O. Nannola<sup>1</sup>, D. Petito<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** Le sepsi meningococciche rientrano a pieno titolo nel gruppo delle emergenze infettivologiche, ma sono descritti in letteratura casi di infezione da *Neisseria Meningitidis* ad andamento subacuto o paucisintomatico.

**Caso clinico:** Si ricovera con diagnosi di "sepsi" paziente di 19 anni, sesso maschile, per astenia marcata, febricola, dolenzia addominale e manifestazioni purpuriche. Un mese prima comparsa di artralgie e rash cutaneo fugace ai gomiti, descritto come eritematoso e papulare, con interpretazione, data dal medico curante, di "reumatismi". Il paziente si presentava ipoteso, con lieve rialzo termico (t 37.5°), manifestazioni purpuriche diffuse, esame neurologico negativo. Agli esami di laboratorio modica leucocitosi neutrofila, lieve allungamento del tempo di protrombina (INR 1.5), lieve iperlattacidemia all'Eab arterioso (1.5 mmol/l). Negativi per focolai settici gli iniziali esami di imaging, come anche la tc torace-addome. A circa 8 ore dall'arrivo veniva confermato il sospetto, posto dal consulente infettivologo, di sepsi meningococcica.

**Discussione:** Sebbene la clinica fosse suggestiva di infezione meningococcica, questa diagnosi non era stata presa in considerazione inizialmente per l'esordio della sintomatologia risalente a un mese prima, che orientava più verso una vasculite complicata da stato settico e CID. L'infezione cronica da meningococco ("chronic meningococcemia" degli autori anglosassoni), ben descritta in testi e pubblicazioni degli anni scorsi, è diventata oggi sempre più rara per motivi ancora in corso di approfondimento.

### Sindrome maligna da neurolettici: l'esordio può essere confuso con varie altre condizioni morbose

M. Di Palo<sup>1</sup>, C. De Martino<sup>1</sup>, R. Fiandra<sup>1</sup>, R. Gente<sup>1</sup>, M. Giordano<sup>1</sup>, F. Lionello<sup>1</sup>, O. Nannola<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** Varie condizioni morbose possono essere confuse con la sindrome maligna da neurolettici (SMN), che è meno rara di quanto ritenuto.

**Caso clinico:** Uomo di 53 anni giunge in p.s. da casa di cura per "sospetto acv". In anamnesi: fumatore, iperteso, diabetico, psicosi cronica, epatopatia. Anamnesi farmacologica: metformina, levetiracetam, risperidone, clotiapina, lorazepam, antiipertensivi. Riferita recente variazione nella terapia psicotropica. Il paziente si presenta confuso, agitato, sudato, elevata Pa (180/100), ipertono muscolare diffuso. Non febbre all'ingresso, sviluppo poi iperpiressia (t >39.0°). Agli esami ematochimici iposodiemia grave (108 mmol/l), marcato aumento del CPK (9585 u/l). All'EAB iperlattacidemia (5.2 mmol/l). Sulla base dei dati clinico-anamnestico-strumentali viene posta diagnosi di SMN e si inizia terapia specifica con Dantrolene e Bromocriptina, nonché terapia di supporto, ma il quadro clinico peggiora per comparsa di insufficienza multiorgano e coma sino all'exitus avvenuto a 5 giorni dall'ingresso.

**Discussione:** L'iposodiemia, non peculiare della SMN, potrebbe es-

sere legata a farmaci che stimolano l'ADH, come, in questo caso, il Levetiracetam. Interessante è il motivo dell'invio in PS. (sospetto a.c.v.): l'esordio nella SMN può non essere riconosciuto, perché mal interpretato come aggravamento della patologia psichiatrica.

**Conclusioni:** L'imponente pluriterapia, che si riscontra non di rado nei pazienti psichiatrici, evidenzia la necessità di rafforzare i warning e il monitoraggio degli eventi avversi in corso di terapia psicotropica.

### Un caso di stroke da dissezione carotidea traumatica: l'origine fetale dell'arteria cerebrale posteriore spiega la topografia dell'ictus

M. Di Palo<sup>1</sup>, V. Andreone<sup>2</sup>, D. D'auria<sup>1</sup>, M. Giordano<sup>1</sup>, E.M.R. Itto<sup>1</sup>, O. Nannola<sup>1</sup>, A. Schiazzano<sup>1</sup>, M. Sacco<sup>1</sup>, L. Zirpoli<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli; <sup>2</sup>U.O. Neurologia, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** I rapporti tra traumi o manipolazioni del collo e stroke, ben descritti sotto forma di casi singoli, richiedono un approfondimento epidemiologico e fisiopatologico.

**Caso clinico:** Un uomo di 59 anni, fumatore, mentre percorre una strada di Napoli con il suo ciclomotore, viene colpito all'emicollo sinistro dall'improvvisa apertura dello sportello di un'automobile. Al più vicino ospedale, gli viene riscontrata una ferita lacero-contusa al collo che viene suturata; tornato a casa, dopo circa 4 ore lamenta deficit motorio all'emilato destro, disartria e disturbi visivi, per cui viene ricoverato in ospedale. La prima tc cerebrale è negativa, mentre la successiva, eseguita a distanza di dieci ore dall'evento, evidenzia lesione ischemica in fase acuta a sede occipitale sinistra e iperdensità trombotica di P2 omolaterale. Il paziente rimane bradicardico per circa 72 ore (fc circa 45/min). Il decorso successivo è caratterizzato da parziale recupero neuro-motorio. Un'angio-Rmn cerebrale eseguita in 6° giornata conferma l'origine fetale dell'arteria cerebrale posteriore, già sospettata in base ai dati clinico-neuroradiologici.

**Discussione:** I motivi di interesse di questo caso sono tre: l'evento scatenante alla base della dissezione carotidea; la persistente bradicardia, forse causata dalla stimolazione del seno carotideo; l'origine fetale dell'arteria cerebrale posteriore (anomalia che si riscontra nel 15-20% dei soggetti, in cui l'arteria origina dalla carotide interna tramite la comunicante posteriore), che spiega l'interessamento temporo-occipitale e i relativi sintomi.

### Direct oral anticoagulants: new challenges, new opportunities now!

M. Di Palo<sup>1</sup>, D. D'auria<sup>1</sup>, L. Guadagno<sup>2</sup>, E.M.R. Itto<sup>1</sup>, A. Magliocca<sup>2</sup>, O. Nannola<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza, AORN Antonio Cardarelli, Napoli; <sup>2</sup>AOU Federico II, Napoli, Italy

**Background:** Venous thromboembolism (VTE) is associated with predisposing environmental and genetic risk factors. (i.e. protein C/S, ATIII deficiency, VLeiden factor/F1G20210A mutations, cancer, Antiphospholipid Ab syndrome - APS, contraception, pregnancy, trauma, surgery). ESC 2014 Guide Lines recommend long-term anticoagulation in APS-related-VTE, with EBPM followed by vitamin k inhibitors (VKA, target INR 2-3) (conventional therapy). Currently, there is lack of evidence on the efficacy of novel oral anticoagulants (NOACs), except for few patients of Registry studies.

**Case report:** Female, 36-years-old, entered the Emergency Department affected by DVT (iliac-femoral-popliteal left veins)/extended "unprovoked" PE. sPESI score 3 (poor 30 days outcome). Furthermore, LAC, ACL and antiBeta2-Gp1 antibodies positivity abled APS diagnosis. Conventional therapy was started. As well as poor compliance, patient was shifted to Apixaban (5mg/bid), without major/minor bleeding events or PE recurrence during 24-months.

**Conclusions:** Poor compliance is a major factor in unstable outpatient control of conventional therapy leading to impaired efficacy (TR<40%). Despite recommendations, we suggest NOACs as alternative in patients with APS. However, their safety and efficacy should be based on the results of phase III clinical trials, such as ASTRO-APS study, a prospective, randomized open-label blinded endpoint pilot study among patients with diagnosis of APS. This

study is currently recruiting participants that will be randomized to receive warfarin (target INR 2-3) or apixaban (5mg bid).

### In medio stat virtus. L'equilibrio tra eccesso e difetto

M. Di Palo<sup>1</sup>, M. Carafa<sup>1</sup>, F. Cataldi<sup>1</sup>, I.M. Gelsomino<sup>1</sup>, M.G. Giordano<sup>1</sup>, L. Guadagno<sup>2</sup>, A. Magliocca<sup>2</sup>, O. Nannola<sup>1</sup>, M. Sacco<sup>1</sup>, D. Verrillo<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza, AORN Antonio Cardarelli, Napoli; <sup>2</sup>AOU Federico II, Napoli, Italy

**Caso clinico:** Un ragazzo di 16 anni giunge presso il PS della nostra AORN per dolore addominale e febbricola. Il paziente per un lieve deficit congenito del Fattore X della coagulazione (40%-v.n. 50-150%), ha praticato profilassi antiemorragica con Complesso Protrombinico Attivato (PCCs) (1ml/Kg pc, 25UI FIX/kg p.c.) per intervento chirurgico di appendicectomia 5 giorni prima. La TCadome documenta estesa trombosi spleno-porto-mesenterica, ectasia della v. splenica (circa 25mm), cavernomatosi portale ed epato-splenomegalia di grado moderato. In funzione della normale CrCl, si avvia terapia anticoagulante con enoxaparina (100UI/Kg p.c. bid), monitorando quotidianamente i parametri di laboratorio, ottenendo già a tre mesi completa risoluzione della trombosi splancica, del cavernoma portale e dei circoli collaterali.

**Conclusioni:** Il deficit del Fattore X è una patologia rara e per questo misconosciuta. Valori di FX pari al 10-40% garantiscono già un'adeguata emostasi, tuttavia la profilassi antiemorragica si avvale dell'infusione di plasma fresco congelato o per lo più del PCCs, quest'ultimo associato a complicanze tromboemboliche; peraltro non sono ancora realmente disponibili concentrati di fattoreX "selettivi" dal punto di vista di target d'azione (rispetto al PFC/PCCs) e pertanto più sicuri ed efficaci. In assenza di linee guida ufficiali, nella nostra esperienza la sola accurata valutazione dei concomitanti rischi emorragico e tromboembolico ha orientato in modo circostanziato la scelta della migliore terapia possibile per il giovane paziente.

### Una reazione avversa da manuale

S. Digregorio<sup>1</sup>, A. Torrighiani<sup>1</sup>, M. Bernardini<sup>1</sup>, L. Burberi<sup>1</sup>, V. Ponticelli<sup>1</sup>, M. Fabbri<sup>1</sup>, R. Innocenti<sup>1</sup>, A. Morettini<sup>1</sup>, F. Corradi<sup>1</sup>

<sup>1</sup>AOU Careggi, Firenze, Italy

R.S.A., 22 anni, riferisce dolore ed edema all'arto inferiore destro da tre giorni, pochi giorni dopo un viaggio aereo di 15 h. Anamnesi patologica e farmacologica mute; assume da tre mesi la pillola estroprogestinica. In DEA riscontro di trombosi dell'asse iliaco comune e superficiale, femoro-popliteo e della vena tibiale posteriore; D-dimero 10739; la paziente nega dispnea e dolore toracico. All'angio-TC si diagnostica un'embolia polmonare segmentaria e subsegmentaria con difetti endoluminali non occludenti a carico di rami della piramide basale dell'arteria polmonare inferiore destra e sinistra; all'ecocardiogramma reperti nei limiti. Agli esami ematici negatività degli Ig anti fosfolipidi, e assenza di mutazioni del fattore V Leiden, del fattore II e della proteina S. Trattata con fondaparinux, la paziente viene dimessa con Edoxaban 60 mg da assumere per sei mesi. Nella donne il rischio di TEV varia da 5-10/100.000 casi per chi non assume estroprogestinici a 20 casi per chi assume EP di seconda generazione, fino a 30-40 casi per chi assume farmaci di terza generazione (il rischio di TEV è maggiore in gravidanza, pari a 60/100.000 casi). Tra le raccomandazioni della letteratura si ricorda che in assenza di familiarità per TVP la pillola può essere prescritta senza lo studio preliminare della coagulazione, che è necessario in caso di familiarità. Si raccomanda di evitare nelle donne >35 anni, fumatrici, la combinazione di estro-progestinici e di iniziare comunque con i soli progestinici la terapia nelle donne sane.

### La profilassi antitrombotica in Medicina Interna: dati dalla "real" real-life

G. Erba<sup>1</sup>, C. Cimminiello<sup>1</sup>, G.G. Arpaia<sup>1</sup>

<sup>1</sup>SC di Medicina Interna, Ospedale di Carate Brianza, ASST di Vimercate (MB), Italy

**Scopo dello studio:** In un reparto di Medicina la maggioranza dei

pazienti presenta polipatie, ipomobilità, fragilità che necessitano profilassi antitrombotica valutata in base al rischio-beneficio.

**Materiali e Metodi:** Dall'agosto 2016 è in uso una scheda basata su PADUA ed IMPROVE score a guida della prescrizione della profilassi tra meccanica, farmacologica e mobilitazione precoce.

**Risultati:** Le prime 291 schede evidenziano un'età media di 77.62±15,01 anni (81,58±12,92; 72,92±15,98). Causa del ricovero malattie infettive, respiratorie, cardiovascolari, neurologiche. 49 pazienti erano già scoagulati, in 11 casi è stata avviata terapia anticoagulante (TEV, FA, cardioembolia). In 25 Pazienti la profilassi farmacologica era controindicata (7 emorragie cerebrali, 6 insufficienza renale, 3 emorragici, 1 piastrinopenia, 7 terminali). PADUA score a basso rischio in 84 Pazienti, alto in 166, IMPROVE score a basso rischio per 219, alto per 31. 76 Pazienti hanno ricevuto profilassi farmacologica a dose piena, 50 ridotta, in 13 casi è stata prescritta una calza ATE, in 53 casi indicata mobilitazione precoce. In 13 la valutazione è risultata incompleta.

**Conclusioni:** La profilassi antitrombotica deve essere considerata per ogni Paziente ricoverato in ambiente medico. La presenza di comorbilità rende necessario adattarla al singolo caso. Nella nostra esperienza solo 1/3 dei pazienti può essere trattato farmacologicamente a dose piena. La profilassi meccanica è ancora sottoutilizzata. La disponibilità di strumenti atti a guidarla può consentire una più corretta e diffusa prescrizione

### Un singolare caso di ascite iatrogena

V. Evandri<sup>1</sup>, P. Ballesini<sup>1</sup>, I. Venturini<sup>1</sup>, A. Borghi<sup>1</sup>

<sup>1</sup>Degenza Post Acuzie, AOU Policlinico di Modena, Italy

**Introduzione:** Paziente sottoposta ad intervento di epatectomia destra allargata al IV segmento per metastasi epatiche da adenocarcinoma del sigma. Dopo un mese evidenza radiologica di ispessimento peritoneale con versamento ascitico.

**Evoluzione clinica:** Dopo 4 mesi viene ricoverata per trauma cranico secondario a sincope. Sviluppa abbondante versamento ascitico, interpretato inizialmente come segno di carcinosi peritoneale, e successivamente anasarca. Il decorso si complica con un delirium ipercinetico, con grave deterioramento delle condizioni generali. La TC toraco-addominale non mostra né nuovi secondarismi né nodulazioni del peritoneo, che appare diffusamente ispessito e ipercaptante il mezzo di contrasto. Le caratteristiche chimico-fisiche del versamento sono compatibili con trasudato, gli oncomarkers sono negativi, agli esami ematici non emergono indici di insufficienza epatica né renale. Non vi è evidenza di ipertensione portale all'Ecodoppler, all'Ecocardiografia le camere cardiache sono di normale morfologia e contrattilità, l'asse iliaco-cavale appare pervio. La misurazione del gradiente pressorio delle vene epatiche non viene eseguita per difficoltà tecniche. Dopo altri 5 mesi alla TC toraco-addominale non segni di ripresa di malattia, riassorbimento del versamento pleurico e persistenza di versamento ascitico, pur senza nodulazioni peritoneali.

**Conclusioni:** Il versamento ascitico può essere dovuto a condizioni di iperafflusso a livello delle vene sovra epatiche residue in caso di epatectomia allargata al quarto segmento.

### Nutrizione artificiale parenterale in pazienti ospedalizzati: confronto fra utilizzo di sacche standard e preparazioni galeniche personalizzate

F. Fabbri<sup>1</sup>, A. Casini<sup>2</sup>, A. Morettini<sup>1</sup>, F. Corradi<sup>1</sup>, F. Sofi<sup>2</sup>, L. Burberi<sup>1</sup>, S. Fruttuoso<sup>1</sup>, A. Torrighiani<sup>1</sup>, M. Bernardini<sup>1</sup>, S. Digregorio<sup>1</sup>, M. Fabbri<sup>1</sup>, E. Cosentino<sup>1</sup>, C. Casati<sup>1</sup>

<sup>1</sup>Medicina Interna, AOU Careggi, Firenze; <sup>2</sup>Nutrizione Clinica, AOU Careggi, Firenze, Italy

**Premesse e Scopo dello studio:** La nutrizione parenterale (NP) rappresenta un trattamento complesso per i possibili errori di prescrizione e l'elevato rischio di complicanze. Negli ultimi due decenni sono stati confrontati costi, efficacia e sicurezza dell'utilizzo di sacche per NP di tipo standard e personalizzate, ma la letteratura risulta povera di studi che si concentrino primariamente sulla comparazione dell'efficacia clinica delle due formulazioni. Questo studio si prefigge di confrontare l'outcome clinico di pazienti trattati con NP standard e NP personalizzata.

**Materiali e Metodi:** Studio osservazionale dal 1/3/15 fino al 15/9/15 su un campione di 15 pazienti ricoverati in una Terapia Subintensiva a prevalente indirizzo chirurgico e in una Medicina Interna dell'Azienda Ospedaliera Universitaria di Careggi. 10 pazienti hanno ricevuto un trattamento con NP di tipo standard, mentre 5 sono stati trattati con NP personalizzata. I pazienti sono stati valutati prima della NP e dopo 5 giorni dall'inizio della stessa con esami di laboratorio indice dello stato nutrizionale.

**Risultati:** L'aumento dei livelli di prealbuminemia (pAlb) e di albuminemia (Alb) risulta significativamente maggiore ( $p < 0,05$ ) nel gruppo dei pazienti trattati con NP personalizzata rispetto a quelli trattati con NP standard.

**Conclusioni:** Questo studio dimostra come pazienti trattati con terapia nutrizionale personalizzata presentino uno stato nutrizionale a breve termine migliore rispetto a quelli trattati con NP di tipo standard, testimoniato da un sensibile aumento dei livelli di pAlb e Alb.

### Optimization of carbapenem prescriptions at the internal medicine ward of the San Giovanni di Dio hospital, Florence: preliminary results of a restrictive antimicrobial stewardship program

A. Faraone<sup>1</sup>, S. Bartolini<sup>2</sup>, C. Boccadori<sup>1</sup>, C. Cappugi<sup>1</sup>, A. Fortini<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Ospedale San Giovanni di Dio, Firenze; <sup>2</sup>Farmacia Ospedaliera, Ospedale San Giovanni di Dio, Firenze, Italy

**Introduction:** Overuse of carbapenems is responsible for the spread of carbapenem-resistant Enterobacteriaceae. With the aim to reduce inappropriate use of carbapenems we implemented a restrictive antimicrobial stewardship program.

**Materials and Methods:** A prior authorization strategy addressing prescription of carbapenems was implemented at our institution. Carbapenem orders had to be approved within 72 hours by an expert clinician, administration was freely allowed only until approval obtained. For each treated patient, clinical data and appropriateness assessment were recorded. Carbapenem consumptions in the pre and post implementation periods were compared.

**Results:** From May 2016 to February 2017, 30 patients were prescribed carbapenems. 40% of prescriptions were inappropriate; in particular, prescriptions were judged inappropriate and discontinued in 52,6% of patients on empirical treatment (10/19) and in 18,1% of patients on culture-based treatment (2/11). Rate of inappropriateness declined from 57,1% in the first bimester to 28,5% in the fifth. Carbapenem consumption decreased from 55,2 defined daily doses (DDDs) per 1000 occupied bed-days in the pre implementation period to 22,8 DDDs in the post implementation period (58,7% decrease).

**Conclusions:** A high rate of inappropriate carbapenem prescriptions was registered. Implementation of a restrictive stewardship program allowed early discontinuation of inappropriate treatments, favoured a progressive decrease of inappropriate prescriptions and determined a remarkable reduction in carbapenem consumption.

### Point quantification elastography in the evaluation of liver stiffness in healthy volunteers: is an ultrasound background fundamental?

C. Feliciani<sup>1</sup>, G. Veronica<sup>1</sup>, V. Grasso<sup>1</sup>, E. Mazzotta<sup>1</sup>, F. Conti<sup>2</sup>, P. Andreone<sup>2</sup>, C. De Molo<sup>3</sup>, C. Serra<sup>1</sup>

<sup>1</sup>PD. Ecografia Interventistica Diagnostica e Terapeutica, Dott.ssa Serra, Policlinico S. Orsola-Malpighi, Bologna; <sup>2</sup>PD. Implementazione e Coordinamento dell'Innovazione Terapeutica nelle Epatopatie Croniche Virali, Prof. Andreone, Policlinico S. Orsola-Malpighi -Bologna; <sup>3</sup>U.O. di Medicina d'Urgenza e P.S., Dr. Cavazza, Policlinico S. Orsola-Malpighi, Bologna, Italy

**Purpose:** The assessment of liver fibrosis is essential in the management of patients with chronic liver diseases. Liver biopsy is the gold standard procedure for this purpose, though the recent development of new elastosonographic techniques to measure liver stiffness (LS) noninvasively is promising. Point quantification elastography (PQE) showed good results but less is known about the level of skillness needed to obtain reliable results. The aim of the study was to evaluate the reproducibility of PQE in assessing LS in healthy subjects comparing three operators with different expertise.

**Methods:** 50 consecutive healthy volunteers (18 males, 32 females), median age 30 years (range 25-66) and BMI 22.4 (range 16.7-33.6) were submitted to PQE (iU22 Philips, Bothell, WA, USA) by three operators: two US and elastography providers (one expert and one with intermediate skillness) and a skilled transient elastography (Fibroscan) operator with no expertise in US. Intra-observer and inter-observer agreement were assessed by interclass correlation coefficient (ICC).

**Results:** No significant differences of mean liver stiffness was found among operators ( $P=0.980$ ). Intra-observer agreement was excellent 0.918 (0.941 for expert, 0.917 for intermediate and 0.888 for novice). The ICC of the inter-observer agreement among the three raters was excellent (0.882) and was higher in normal than overweight patients (0.923 vs. 0.603;  $P=0.011$ ).

**Conclusions:** PQE is a reliable and reproducible non invasive method for the assessment of LE, and can be performed also by a non experienced operator.

### Comorbidities as predictors of mortality in pulmonary embolism: an overlooked problem

P. Fenu<sup>1</sup>, S. Gori<sup>1</sup>, F. Cei<sup>1</sup>, M. Cei<sup>1</sup>

<sup>1</sup>PO. Bassa Val di Cecina (LI), Italy

**Background:** Pulmonary embolism (PE) is regarded as high-mortality disease, to be managed on the basis of ESC risk stratification, that strongly focuses on the hemodynamic impairment: high (HR), intermediate-high (IHR), intermediate-low (ILR) and low risk (LR). Aim of the study was to compare this risk stratification with the impact of comorbidities on mortality rate in patients admitted for PE in the internal medicine ward (IMW).

**Methods:** We included all patients admitted for PE during 2016 in IMW excluding those in HR class. We calculate the simplified Pulmonary Embolism Severity Index (sPESI) and a comorbidity index (the Modified Walter Score, MoWS); primary outcomes were in-hospital and 90 days mortality.

**Results:** 32 patients were enrolled and 4 of them (12,5%) died during the observation period, 3 in-hospital and one at 36<sup>th</sup> day since discharge. The deceased patients had higher values of sPESI (median=3 vs 1, interquartile range 1-4 vs 0-2,  $p=0,04$ ) and MoWS (median=8 vs 4, interquartile range 5-16 vs 0-10,  $p=0,02$ ) in respect to those who survived. On the contrary, no patients of the IHR class died; all those who deceased belonged to the ILR class.

**Conclusions:** Comorbidity-based scores as sPESI and MoWS discriminate significantly the high-risk patients from the low-risk ones. On the contrary, the subdivision of the intermediate class into IHR and ILR based on signs of cardiac impairment (cardiac biomarkers, right ventricular overload) seems ineffective for discrimination in IMW.

### A dashboard of indicators for assessing a Internal Medicine ward activity

D. Ferrante<sup>1</sup>, C. Bertona<sup>1</sup>, L. Contu<sup>1</sup>, A. Pozzati<sup>1</sup>, S. Rebuzzini<sup>1</sup>

<sup>1</sup>Humanitas Mater Domini, Castellanza (VA), Italy

**Introduction:** We examined a panel of clinical and outcome indicators evaluating the activity of hospitalization of General Medicine Unit of Humanitas Mater Domini Castellanza (Varese). The aim of the work was to analyze the available data in order to ensure a continuous quality improvement of the services provided.

**Methods:** The indicators, extracted from hospital discharge records (SDO), included: the percentage of hospitalized patients from the Emergency Department (ED), the percentage of comorbidities, the APR-DRG weight, the percentage of surgical DRGs produced, the average days of hospitalization, the average days of hospitalization in ICU, the percentage of fall in OR, the percentage of readmissions for the same diagnosis, the mortality rate. The 2015 data were compared with the same in 2014.

**Results:** We considered the 15 more representative diagnostic group: 308 records of 635 total in 2015 and 257 records of 617 total in 2014. All the indicators have been reliable and allowed a proper assessment of the clinical activities.

**Conclusions:** The research allowed to identify critical issues (eg increased complexity of the patients treated, increased mortality rate of patients with pulmonary infections or respiratory failure), to vali-

date some clinical paths (eg reduction in readmission of patients with heart failure treated in dedicated outpatient facilities) and assume any corrective action (eg implementation of scores for early identification of patients with sepsis deserving intensive treatment).

### A case of pulmonary amyloidosis

C. Ferrari<sup>1</sup>, A. Tamburello<sup>1</sup>, M.T. Lavazza<sup>1</sup>, L. Brivio<sup>1</sup>, C. Marchesi<sup>1</sup>, E. Ricchiuti<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Legnano (MI), Italy

**Case report:** A 73-year-old male smoker presented with nodular opacity (23 mm, right lung base) at the chest x-ray. Patient had a history of tuberculosis, multiple sclerosis undergoing therapy in the last 20 years (azathioprine, methotrexate, interferon and dexamethasone) and previous prostatectomy for cancer. Laboratory tests showed normal blood count, renal and liver functions, total protein, electrophoresis and C-reactive protein; neoplastic markers were negative except slight elevation of Ca 19.9. Chest computed tomography scan showed a nodule of approximately 2 cm at the middle lobe lateral segment (irregular margins, calcified inner component). We proceeded with a diagnostic bronchoscopy: there were no endobronchial lesions, malignant tumor cells and microbiological test were negative. Patient underwent PET: nodule had moderate metabolic activity, SUV max 3.3. Percutaneous lung FNAC was done using 21G needle but it was not diagnostic because of insufficient material. Surgical help was sought from the thoracic team and patient underwent mini thoracoscopy and lung biopsy was taken from right lower lobe. Histopathological evaluation revealed localized amyloidosis. Patient underwent further examinations: serum and urine immunofixation, proteinuria, x ray skeleton, ecocardiography, thyroid ecography, bone marrow biopsy were normal. We concluded for pulmonary amyloidosis and we referred patient to specialistic center for follow up.

### A granulomatosis strange case

C. Ferrari<sup>1</sup>, L. Brivio<sup>1</sup>, E. Ricchiuti<sup>1</sup>, A. Tamburello<sup>1</sup>, M.T. Lavazza<sup>1</sup>, C. Marchesi<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Legnano (MI), Italy

**Case report:** A 43-year-old male nonsmoking with exertional dyspnea, low-grade fever and cough with sputum, persistent for three months and not improved after antibiotic therapy. Chest x-ray revealed right pleural effusion. Laboratory tests showed leukocytosis with neutrophilia, renal failure (third stage according to NKF) and C-reactive protein elevation; serology for atypical pneumonia, blood cultures, interferon gamma release assay, autoimmune profile and HIV Ab were negative; ACE not increased. Urine test positive for microhaematuria. CT study of chest revealed pleural empyema. Pleural fluid analysis revealed an exudate; malignant tumor cells were negative as pleural fluid culture and direct microscopic examination to BK. Given the lack of response to empirical antibiotic therapy, the patient underwent a thoracoscopic pleural biopsy with histological evidence of necrotizing granulomas giant cell. At this point at least two diagnostic criteria of GPA (microhaematuria and granulomatous inflammation on biopsy) seemed satisfied and they appeared to exclude infections, neoplasms and granulomatous disease (eg sarcoidosis), so we set steroid therapy. Diagnosis of GPA was supported by clinical response to treatment. Diagnosis of TB seemed unlikely (negative interferon gamma release assay, pleural fluid culture and direct microscopic examination to BK). The patient was discharged. A month after discharge, culture test conducted on a fragment of pleura was positive for M. tuberculosis. Patient was contacted to start tapering steroid and initiating anti-tuberculosis therapy.

### Neglected causes of acute respiratory failure for the elderly

R. Ferrari<sup>1</sup>, D. Agostinelli<sup>2</sup>, D.P. Pomata<sup>1</sup>, M. Anziati<sup>1</sup>, E. Martino<sup>2</sup>, M. Cavazza<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza e Pronto Soccorso, Policlinico Sant'Orsola-Malpighi, Dipartimento dell'Emergenza-Urgenza, Azienda Ospedaliero Universitaria, Bologna; <sup>2</sup>Medicina Interna, Policlinico Sant'Orsola-Malpighi, Dipartimento Medico della Continuità Assistenziale e delle Disabilità, Università degli Studi, Bologna, Italy

**Background:** Diagnostic assessment of Acute Respiratory Failure (ARF) in the elderly is challenging: frailty, disability and comorbidities involve main consequences on proper treatment, management and outcome.

**Aims and Methods:** We analyzed observational data we collected in last years in our Emergency Department, to identify conditions at maximum risk for inappropriateness in ARF patients aged >65 or >80 years.

**Results:** We studied 208 consecutive adults in 6 months for acute asthma (AA) (media 1.15/day) aged (media, median, minimum and maximum) 41, 39, 14 and 100 years, respectively; 27 cases were >65 years old (13%), 8 >80 (3.8%). We evaluated 124 unselected subjects non-invasively ventilated in 3 months (media 1.38/day) in the ED for ARF due to acute exacerbation of chronic obstructive pulmonary disease (COPD), aged 81, 83, 56, 97 years (success group), and 81, 82, 63, 94 years (death or intubation), respectively.

**Conclusions:** In the differential diagnostic assessment of ARF in the elderly, asthma seems to be underestimated and COPD over-represented. AA is still at risk to be considered as a hyperacute anaphylactic episode, exclusive for young people. Neither every wheezing in older people, nor any hypercapnic ARF, should automatically be labelled as COPD. Both COPD and asthma have various phenotypes, different in treatment and management: older age seems to represent a peculiar phenotype per se. In COPD the elderly subgroup is at main risk for developing ARF and its complications because of under-diagnosis, inadequate therapy, and the consequent progressive deterioration.

### The multifaceted impact of dying in the emergency department

R. Ferrari<sup>1</sup>, D. Agostinelli<sup>2</sup>, A. Longanesi<sup>3</sup>, C. Lanzarini<sup>1</sup>, G. Rossignoli<sup>1</sup>, M. Cavazza<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza e Pronto Soccorso, Policlinico Sant'Orsola-Malpighi, Dipartimento dell'Emergenza-Urgenza Azienda Ospedaliero Universitaria, Bologna; <sup>2</sup>Medicina Interna, Policlinico Sant'Orsola-Malpighi, Dipartimento Medico della Continuità Assistenziale e delle Disabilità, Università degli Studi, Bologna; <sup>3</sup>Logistica Sanitaria, Direzione Sanitaria, Azienda Ospedaliero Universitaria, Bologna, Italy

**Background and Aims:** Within the project "Soft Emergency - not only to cure but also to care" we aimed to set an educational program about communicating bad news in the emergency setting. We first evaluated the impact of dying on our Emergency Department (ED).

**Methods:** We retrospectively reviewed every case of death occurred during 2015 within the ED of our University teaching Hospital. We then analyzed each single case about its peculiar characteristics.

**Results:** 140 deaths were recorded in 66312 cases in the Emergency Room (media 182 / day); in the Ward we documented 61/10291 cases; 65/1257 in the High-Dependency Medical Unit. Every case was unique: already dead, sudden death, long lasting cardio-pulmonary resuscitation efforts, careful palliative measures, unexplained causes, others clearly predictable, cases with time to share decisions with both the patient and the family, others in which family members were neither attending nor aware of the occurring events.

**Conclusions:** In the year 2015 266 people died inside our ED. Each case had a peculiar medical management and emotional involvement; it is not possible to share any standard recommendation about times and ways of resuscitation and of communication. Death and its communication are primarily important in frequency and significance on the every-day life of the ED: the burden of these dramatic issues weigh on physicians and nurses in the worst moments and conditions, after useless long-lasting resuscitation efforts, often with no specific education, nor logistics support, nor the chance of an immediate debriefing.

### The impact of neutrophils to lymphocytes ratio in patients with acute coronary syndromes: a meta-analysis of major clinical outcomes

V. Ferrari<sup>1</sup>, F. Zuretti<sup>1</sup>, G. Conte<sup>1</sup>, O. Nigro<sup>2</sup>, A.M. Grandi<sup>1</sup>, L. Guasti<sup>1</sup>, F. Dentali<sup>1</sup>



<sup>1</sup>Università degli Studi dell'Insubria, Varese; <sup>2</sup>Università degli Studi di Pavia, Italy

**Background:** Inflammatory markers are significantly associated with cardiovascular disease. The ratio between neutrophils and lymphocytes (NLR) is a potential new biomarker, which can single out individuals at risk for future CV events. Among the total white blood cell count (WBC) and its subtypes, NLR has the greatest predictive value for Death and Major Adverse Cardiovascular Events (MACE) in patients with Acute Coronary Syndrome (ACS). To assess the relation between NLR and future CV outcomes, we performed a meta-analysis of the literature.

**Materials and Methods:** MEDLINE and EMBASE databases were searched up to January 2017. Two reviewers selected studies and extracted data. Pooled results are reported as odds ratio and are presented with the corresponding 95% confidence intervals (CI). Heterogeneity among the studies was assessed.

**Results:** Twenty-three studies for a total of more than 16,000 patients were included. High NLR on-admission was correlated with a high risk of mortality (OR: 5,08; 95% CI: 3,63-7,12), considered as both in-hospital (OR: 5,02; 95% CI: 3,40-7,42) and long-term mortality (OR: 4,13; 95% CI: 2,91-5,87) compared to those with low NLR. An increased risk of MACE was also found in patients with high NLR (OR: 3,01; 95% CI: 1,90-4,78; P<0,00001). By evaluating post-PCI mortality risk, we found a significant association with high NLR (OR: 3,44; 95% CI: 2,68-4,42).

**Conclusions:** High NLR on-admission in patients with ACS appears to affect important clinical outcomes including both in-hospital and long-term mortality and MACE.

### The effect of recanalization on long-term neurological outcome after cerebral vein thrombosis

V. Ferrari<sup>1</sup>, G. Pagano<sup>1</sup>, F. Zuretti<sup>1</sup>, L. Tavecchia<sup>1</sup>, L. Guasti<sup>1</sup>, A.M. Grandi<sup>1</sup>, F. Dentali<sup>1</sup>

<sup>1</sup>Medicina Interna, Università degli Studi dell'Insubria, Varese, Italy

**Background:** Few studies with small sample sizes evaluated long-term recanalization rates after cerebral venous thrombosis (CVT) and their association with neurological outcome.

**Materials and Methods:** In a multicenter international study, patients (pts) with an acute first episode of CVT with at least 1 imaging test during follow-up were included. Vessels' patency status was categorized as completely, partially or not recanalized. Neurological outcome was defined using the modified Rankin Scale (mRS) as excellent (score 0-1) or poor (score 2-6). Predictors of recanalization and disability were assessed with a maximum follow-up of 3 years.

**Results:** 508 pts (median age, 39 (28.5-49) years; 26% male) were included. Recanalization was detected in 82% of pts at scans performed at 28 days-3 months, in 74.3% at 3-6 months, in 80% at 6-12 months and finally in 74.5% at 1-3 years (p=0.452). At multivariate analysis, single site involvement (OR 1.81, 95% CI 1.29-2.55) and pregnancy or puerperium (OR 2.24, 95% CI 1.28-3.92) were associated with recanalization, while age>39 years with no recanalization (OR 0.55, 95% CI 0.39-0.78). mRS at time of follow-up imaging was available in 483 pts; 448 (92.8%) had a 0-1 mRS. CVT recanalization (OR 2.56, 95% CI 1.59-4.13), cancer (OR 0.29, 95% CI 0.09-0.88), and history of venous thromboembolism (OR 0.36, 95% CI 0.14-0.92) were independently associated with favourable outcome at follow-up.

**Conclusions:** Most pts with CVT had at follow-up complete or partial recanalization that was independently associated with good neurological outcome.

### Pulmonary and meningeal Cryptococcal disease in an immunocompromised patient for prolonged steroid therapy: management of laboratory results leads to target therapy

F. Ficara<sup>1</sup>, C. Massaro<sup>1</sup>, G. Cariti<sup>2</sup>, S. Corcione<sup>2</sup>, C. Marinone<sup>1</sup>

<sup>1</sup>Medicina 5, Città della Salute e della Scienza, Torino; <sup>2</sup>Malattie Infettive, Ospedale Amedeo di Savoia, Torino, Italy

**Data and Aim of the study:** We have to take into account the fungal aetiology in immunocompromised patients for prolonged steroid therapy patients' pneumonia.

**Materials and Methods:** This is a case report of a 75 years old man, after 1,5 years of steroid therapy for dermatological causes, admitted to our ward in december 2016 for recurrent fever and pneumonia in the right lung lobe, after a recent admission to another hospital for the same reason. TC torax scan didn't suggest aetiology, flogosis indexes were high - betaglucano also - patient didn't have devices. He received antibiotic empiric therapy, in observance of our Hospital Guide Lines, while waiting results of blood cultures and bronco-alveolar lavage, but completely ineffective. Adding first fluconazolo, then Amphotericin-B, fever continued.

**Results:** One of ten emocolture bottles resulted positive for Cryptococcus neoformans; just after we observed Antigen positivity in serum and from BAL. The bronchial biopsy istology demonstrated the presence of spore. We performed also lumbar puncture, which revealed positivity of Cryptococcus, but normal baseline pressure. HIV was negative. Based on micogram, we replaced Amphotericin-B with voriconazol, with rapid defervescence, but two weeks after we had to return to amphotericin-B, because of a patient's cutaneous idiosyncratic adverse reaction .

**Conclusions:** Prolonged steroid therapy in "otherwise healthy patients" admitted in hospital for persistent fever and pneumonia let us suggest fungal aetiology, strengthening antibiotic therapy with the antimycotic one.

### The risk of mortality at one year in long term care in north Sardinia

A. Filippi<sup>1</sup>, A. Uneddu<sup>1</sup>

<sup>1</sup>AOU Sassari, Italy

**Premises and Purpose of the study:** The purpose of this paper is to describe the main care methods using a holistic approach via Multidimensional Prognostic Index (MPI), to stratify the risk of mortality in Long-term care Post-acute Phases. Due to the complexity of the patients received, it is necessary to submit all elderly patients to a geriatric multidimensional evaluation, in order to detect functional parameters related to different areas, such as selfsufficiency in the basal activity of daily living (B-ADL), autonomy in the instrumental skills (IADL), the cognitive status (SPMSQ), the risk of bedsores (Exton Smith), the risk of malnutrition (MNA), comorbidities (CIRS), social status.

**Materials and Methods:** The study was conducted on 1555 patients admitted from 01/01/13 to 30/09/16 to Long-term care of Sassari. Within 24 hours of admission patients were subjected to multidimensional geriatric evaluation with the calculation of the risk of 1-year mortality through MPI.

**Results:** The elderly long-term care patients have a high average age, over 82 years. They are strictly confined in autonomy for baseline and instrumental activities of daily living (ADL, IADL), and manage to undertake just over one action (dressing, toileting, use the phone etc.) out of 14 possible. The mental state is moderately deteriorated for medium entities cognitive impairment (SPMSQ). Nutritional status as assessed by MNA input is particularly affected, with detection of deep malnutrition in over 70% of the patients.

**Conclusions:** The risk of mortality at one year, using MPI valuation, is high (70%).

### Il rischio di tromboembolismo venoso nelle donne con sindrome dell'ovaio policistico (uno studio italiano)

L. Filippi<sup>1</sup>, R. Mioni<sup>2</sup>, R. Pesavento<sup>2</sup>, D. Ceccato<sup>2</sup>, A. Dalla Ca<sup>2</sup>, L. Cervino<sup>2</sup>, A. Gambineri<sup>3</sup>, A.M. Fulghesu<sup>4</sup>, F. Fruzzetti<sup>5</sup>, A.C. Frigo<sup>6</sup>, R. Vettor<sup>2</sup>

<sup>1</sup>U.O.C. Medicina Ospedale Cazzavillan, Arzignano (VI); <sup>2</sup>Clinica Medica III, Università degli Studi di Padova; <sup>3</sup>Università degli Studi di Bologna;

<sup>4</sup>Università degli Studi di Cagliari; <sup>5</sup>Università degli Studi di Pisa;

<sup>6</sup>Università degli Studi di Padova, Italy

**Premesse e Scopo:** Il rischio tromboembolico venoso (TEV) nelle donne in età fertile va da 0.5 a 1.2/1000 pazienti/anno. La sindrome dell'ovaio policistico (PCOS) colpisce il 12-21% delle donne in età fertile. La PCOS si associa a riduzione della capacità fibrinolitica globale, aumento dei livelli plasmatici di PAI-1 e Ag t-PA e a comorbidità come l'obesità e il diabete mellito. Inoltre,

spesso, queste pazienti assumono terapia ormonale a lungo termine. Nonostante ciò, il reale peso del rischio di TEV nelle donne con PCOS è tuttora sconosciuto. Lo scopo di questo studio è di stabilire il tasso di incidenza di eventi TEV in tali pazienti.

**Materiali e Metodi:** Abbiamo disegnato uno studio multicentrico, retrospettivo di coorte includendo donne con diagnosi oggettiva di PCOS. Tutte le pazienti arruolate venivano rivalutate ad una visita di follow-up per investigare l'occorrenza di TEV.

**Risultati:** Dal 1994 al 2016 abbiamo raccolto in 4 centri in Italia dati di 1017 pazienti consecutive con PCOS osservate per un totale di 20034 anni. In 26 casi era stato diagnosticato un evento TEV (9 trombosi venose profonde e/o embolie polmonari e 15 trombosi venose superficiali). Di queste, 8 erano idiopatiche, 7 erano associate a fattori di rischio non ormonali e 11 erano associate a terapia ormonale. L'incidenza totale di TEV era di 1.3/1000 pazienti/anno (IC 95%: 0.9-1.9).

**Conclusioni:** Questi dati preliminari mostrano come nella nostre coorte di donne con PCOS, la malattia non sembra aumentare in maniera significativa il rischio di TEV anche nelle pazienti che assumevano terapia ormonale.

### Possible role of matricellular proteins in pancreatic ductal adenocarcinoma survival

S. Fiorino<sup>1</sup>, C. Benini<sup>2</sup>, M.L. Bacchi-Reggiani<sup>3</sup>, G. Acquaviva<sup>4</sup>, M. Visani<sup>4</sup>, A. Fornelli<sup>5</sup>, M. Masetti<sup>2</sup>, A. Tura<sup>6</sup>, M. Zanello<sup>2</sup>, L. Mastrangelo<sup>2</sup>, R. Lombardi<sup>2</sup>, F. Monetti<sup>7</sup>, P.E. Orlandi<sup>7</sup>, M. Imbriani<sup>7</sup>, S. Giovanelli<sup>8</sup>, P. Leandri<sup>1</sup>, E. Jovine<sup>2</sup>, D. De Biase<sup>9</sup>

<sup>1</sup>Unità Operativa Semplice Dipartimentale di Medicina Interna C, Ospedale Maggiore, Bologna; <sup>2</sup>Unità Operativa di Chirurgia A, Ospedale Maggiore, Bologna; <sup>3</sup>Istituto di Cardiologia Policlinico S.Orsola-Malpighi, Università degli Studi di Bologna, Bologna; <sup>4</sup>Dipartimento di Medicina Sperimentale, Università di Bologna, Ospedale Bellaria, Bologna; <sup>5</sup>Servizio di Anatomia Patologica, Ospedale Maggiore, Bologna; <sup>6</sup>CNR Institute of Neuroscience, Padova; <sup>7</sup>Unità Operativa di Radiologia, Ospedale Maggiore, Bologna; <sup>8</sup>Unità Operativa di Gastroenterologia, Ospedale Maggiore, Bologna; <sup>9</sup>Dipartimento di Farmacia e Biotecnologie, Università di Bologna, Bologna, Italy

**Objectives:** PDAC is a very aggressive malignancy with a poor prognosis, depending on several factors. MPS modulate cell proliferation, differentiation, apoptosis, survival, adhesion to stroma and ability to migrate. We aimed to detect relevant studies on the possible relationship between serum/tissue MPs and survival in patients (pts) with PDAC.

**Methods:** A systematic review was performed in December 2016, according to PRISMA statement, focusing on the following MPs: Autotaxin, Cysteine rich Protein Family 1,2,3; Galectin (GL) 1,3; Fibulin-5; Osteopontin (OST); Periostin (POST), Pigment Epithelium Derived Factor (PEF), R-Spondin, Plasminogen-activator inhibitor 1,2 (PAI 1,2); Secreted Protein Acidic and Cysteine rich (SPARC); Tenascin-C,-R,-X,-W (TN); Thrombospondin (TSP)-1,2,4,5, on the basis of Murphy-Ullrich classification.

**Results:** A tendency to poorer survival was observed in pts with high tissue expression of SPARC, POST, TN, TSP, GL, OST or improved prognosis in pts with high cytoplasmic expression of PEF and PAI 1,2, although aims, design, size of available studies as well as geographical areas, where trials have been performed, are heterogeneous

**Conclusions:** Available data seem suggesting important role of MPs in PDAC onset and prognosis, but how they impact the prognosis in patients with PDAC is not clear yet and results obtained are not univocal. Further well-designed and large sample-size studies also in different geographical areas are need to confirm these observations.

### A case of extrapulmonary sarcoidosis

C. Florenzi<sup>1</sup>, A. Crociani<sup>1</sup>, E. Blasi<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. De Marzi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, T. Fintoni<sup>1</sup>, S. Rutili<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

A 30 year old Congolese woman was admitted to our hospital for recent weight loss, fever, abdominal pain, parotid swelling, night profuse sweating, arthromyalgia, blurred vision and papular skin

lesions. Her medical history included past surgery for ovarian cyst and uterine myoma, and recent surgery for bowel subocclusion, with evidence of uterine adenomyosis, ascites and abdominal lymphadenopathy (LAD). Chest abdomen CT scan revealed abdominal, mediastinal and axillary LAD, inflammation, ascites and adnexal cyst. Blood tests revealed anaemia, elevated ESR, CRP, amylases and chitotriosidasis, negative AAB screen. Serum and ascitic fluid infection tests were negative. Immunophenotyping revealed depression of CD4+ T and NK cells. Histological exam showed non necrotizing granulomatous inflammation with giant cells on abdominal LNs, while it showed sialoadenitis on parotid glands. We made a diagnosis of extrapulmonary (abdominal, lymph nodal, parotid, ocular and cutaneous) sarcoidosis. Our patient was treated with CS, with clinical improvement, ESR and CRP drop and LNs decrease in size, so that we progressively reduced CS. Sarcoidosis is a chronic immune-mediated systemic disease of uncertain origin, characterized by noncaseating granulomas. It typically involves lungs and related LNs, but lesions can affect any organ (LNs, skin, NS, heart, eyes, parotid glands, BM, spleen, GI tract, female genital tract). There are high inflammatory markers and chitotriosidasis levels. Diagnosis is confirmed by histological finding of noncaseating granulomas. CS are the therapy of choice.

### A case of Wernicke encephalopathy after gastric resection

C. Florenzi<sup>1</sup>, G. Cioni<sup>1</sup>, E. Blasi<sup>1</sup>, L. Corbo<sup>1</sup>, G. De Marzi<sup>1</sup>, E. Antonielli<sup>1</sup>, O. Para<sup>1</sup>, L. Fedeli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

A 65 year old woman was admitted to our hospital for vomit, weight loss, temporal disorientation, retropulsion, ophthalmoplegia, retrograde amnesia, altered mental status. Her medical history included partial gastric resection for ulcer, with subsequent chronic malabsorption and anaemia, and a recent episode of Wernicke encephalopathy (WE) treated with thiamine with clinical recovery and disappearance of brain MRI alterations, but with residual short-term memory impairment and reactive depression. EGDS showed normal gastric stump. Head CT scan didn't reveal any acute alterations. EEG displayed mild diffuse abnormalities. EMG excluded neuropathies. Brain MRI showed findings highly suggestive of WE. Our patient was treated with iv thiamine and showed progressive neurological improvement, with only residual short-term memory impairment. She was discharged with long-term parenteral thiamine therapy. WE is an acute neuropsychiatric syndrome due to thiamine deficiency. It is often associated with alcoholism, but it can also develop in other settings of poor nutrition such as GI disturbances, bariatric surgery, hyperemesis gravidarum, cancer or TPN. WE manifestations are ocular abnormalities, ataxia, altered mental status or memory impairment. Korsakoff psychosis (KP) can develop in the outcome of WE; WE represents the acute (usually reversible) stage, while KP is the chronic (often irreversible) one. WE is often undiagnosed. Untreated WE worsens the process of brain aging. The basic treatment is long-term parenteral thiamine administration, often in high doses.

### A case of chylothorax in suspected lymphangiomatosis

C. Florenzi<sup>1</sup>, L. Corbo<sup>1</sup>, G. Cioni<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. Zaccagnini<sup>1</sup>, A. Crociani<sup>1</sup>, F. Rocchi<sup>1</sup>, V. Turchi<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Internal Medicine Unit 1, Careggi University Hospital, Florence, Italy

A 32 year old 27 weeks pregnant Senegalese woman was admitted to our hospital for dyspnea. She had had a trauma at 3 weeks and first onset of dyspnea at 5 weeks. Chest X-ray showed pleural effusion. Copious chyle was drained. Chest CT scan showed LADs and lung densification. Blood tests revealed negative PCT, QFT and infection tests. Microbiological exams on chyle were negative; cytological exam was negative with poor cellularity (mostly histiocytes). Blood and chyle immunophenotyping was negative. Chylothorax (about 2 L a day) was resistant to fasting. She remained afebrile. After caesarean section, she underwent surgery, in which chyle production was found in lymphatic tissue on diaphragm surface, then treated with cauterization and talc. She resumed lipid-lowering diet and was treated with octreotide, with no chylothorax recurrence. Pathological exam on pleura showed dif-

fuse inflammatory infiltrate with giant cells and angiectasia. New chest abdomen CT scan showed findings suggestive of lymphangiomatosis of lung, spleen and bone. Chylothorax is usually due to mediastinal trauma or neoplasm, more rarely to lung lymphatic lesions. Lymphangiomatosis is characterized by lymphatic structure abnormalities that can involve lungs, mediastinum, pleura, abdomen, bone. It mostly occurs in children and young adults. Onset of symptoms can be due to increased lymphatic flow or to hormones (e.g. in pregnancy). Diagnosis can be made by tissue pathology. Prognosis is usually progressive, but regression of symptoms can occur (e.g. after delivery). Treatment is still a challenge.

### Le solite artralgie dell'anziano o qualcosa di più?

M. Fontana<sup>1</sup>, R. Benedetti<sup>1</sup>, E. Bravi<sup>1</sup>, F.C. Bodini<sup>2</sup>, A. Zangrandi<sup>3</sup>, D. Imberti<sup>1</sup>

<sup>1</sup>S.C. Medicina Interna, AUSL Piacenza; <sup>2</sup>S.C. Radiologia, AUSL Piacenza; <sup>3</sup>S.C. Anatomia Patologica, AUSL Piacenza, Italy

**Introduzione:** Il morbo di Whipple è una rara infezione cronica sistemica causata da *Tropheryma Whipplei*. I sintomi, sfumati e aspecifici ne rendono difficile l'identificazione precoce. Spesso artralgie precedono la comparsa degli altri segni clinici: diarrea cronica, febbre, perdita di peso, adenopatie, dolori articolari e talora segni di interessamento neurologico, cardiaco, oculare.

**Caso clinico:** Paziente di sesso maschile, 79 anni, seguito da 5 anni in Reumatologia per artrite reumatoide siero negativa trattata con idrossiclorochina e corticosteroidi a basso dosaggio con scarso beneficio quindi con metotrexate. Dopo 6 mesi dall'inizio del metotrexate il paziente viene ricoverato in Medicina Interna per astenia e marcato calo ponderale. Agli esami ematochimici: lieve leucocitosi neutrofila e aumento degli indici di flogosi, negativi gli accertamenti per malattie neoplastiche. Alla Tc: multiple formazioni linfonodali del ventaglio mesenterico. La biopsia linfonodale evidenzia una composizione cellulare marcatamente alterata che orienta verso un quadro di morbo di Whipple, confermato all'EGDS. Il trattamento antibiotico con dossiciclina ha consentito un rapido miglioramento del quadro clinico.

**Conclusioni:** La rarità della malattia e il polimorfismo dei sintomi rende particolarmente difficile la diagnosi della malattia che spesso è tardiva e fatale. La visione olistica del paziente propria dell' internista, riveste un ruolo cruciale nel dipanare casi di non immediata soluzione.

### Home management of direct oral anticoagulants in patients with poor control of anticoagulation with vitamin K: an experimental project

M. Fontana<sup>1</sup>, L. Degli Esposti<sup>2</sup>, R. Benedetti<sup>1</sup>, S. Radici<sup>3</sup>, A. De Masi<sup>3</sup>, C. Seccaspina<sup>3</sup>, A. Sartori<sup>4</sup>, E. Croci<sup>4</sup>, F. Pigna<sup>5</sup>, A. Magnacavallo<sup>5</sup>, D. Imberti<sup>1</sup>

<sup>1</sup>Internal Medicine Department, AUSL Piacenza; <sup>2</sup>CLICON, Bologna; <sup>3</sup>Pharmacy Department, AUSL Piacenza; <sup>4</sup>Clinical Pathology, AUSL Piacenza; <sup>5</sup>Emergency Department, AUSL Piacenza, Italy

The activation of home nursing service (HNS) for International Normalized Ratio (INR) monitoring in patients with low level of mobility, logistic difficulties and requiring a high number of INR samples, is associated with a high consumption of health care resources. The main guidelines recommends to switch to Direct Oral Anticoagulants (DOACs), patients receiving VKAs with Time in Therapeutic Range (TTR) <60%. We developed a program to switch to DOACs patients followed by the HNS with indication to anticoagulant therapy and inadequate control of INR

**Aims of the study:** To compare the consumption of healthcare resources before and after the shift from AVK to DOACs; to describe the prevalence of cardiovascular events, bleeding complications, hospitalizations and deaths in patients switched to treatment with DOACs, to check the feasibility of the project.

**Methods:** Inclusion criteria: patients on VKAs therapy, age >18 years, with HNS activated only for the INR dosing, carrying  $\geq 17$  samples/year and having TTR <60%. Exclusion Criteria: severe renal failure, liver failure and concomitant medications interfering with DOACs.

**Results:** Of the 310 patients with HNS activated 50 have a TTR <60% and a number of samples/year  $\geq 17$ . At the moment 20 were switched. Only one of the 20 patients enrolled required a temporarily discontinuation of the DOACs because a severe post-traumatic cerebral hemorrhage.

**Conclusions:** The study is still ongoing. Final and detailed analysis will be presented at the end of the study

### Medicina a Colori: a single centre project for an early accurate patient stratification and monitoring on the basis of their intensity of care requirement implementation of identification of patients and definition of their intensity of care

B. Franceschetti<sup>1</sup>, R. Barbaro<sup>1</sup>, M. Torchio<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale Civile di Vigevano, ASST di Pavia, Italy

"Medicina a Colori" is a project that aims to contextualize the model of so-called "intensity of care" to the local reality of the Internal Medicine Unit of our Hospital. It is a conceptual transition from a vertical organizational model for "personal expertise" to a horizontal model focused on the patient (pt) and not on single pathology to cure. In last years, new problems arose for changes in type of pts and for inadequate pts' care organizational methods: we need to find new ways to respond to emerging needs. Actually in our Internal Medicine Unit (that is made up 50 beds) is not possible identify some beds of greater intensity because of the shortage of nursing staff and the high turnover of inmates. The project called "Medicina a Colori" is an elaboration of the National Early Score System score (NEWS), borrowed from the Anglo-Saxon world (NICE guidelines and Medical College of Physicians) and combined with a nursing weight score (patient dependent, semi-dependent patient and self-patient). The two scores are applied to each patient from admission until discharge in order to identify the patient's weight and intercept the deterioration of vital functions. Each bed will always be recognized with two colors (one for clinical and the other for welfare needs). We are carrying on a pilot project focused on ten beds that will take place in autumn 2017 for two months and it will be preceded by a nursing organizing and training period. Actually we are sensitizing the nursing and medical staff throughout an institutional teaching program.

### The optimal use of new oral anticoagulants in non valvular atrial fibrillation

A. Franco<sup>1</sup>, S. Di Simone<sup>1</sup>, R. Gaudio<sup>1</sup>, R. Pastorelli<sup>2</sup>

<sup>1</sup>UOC Medicina Interna, PO Colleferro, ASL RM 5; <sup>2</sup>UOC Medicina Interna, PO Colleferro, ASL RM 5, Colleferro (RM), Italy

**Background:** Patients (P) with NVAF have thromboembolic risk (TR) which is reduced by oral anticoagulant prophylaxis, both Warfarin (W) than NOACs. Major bleeding (MB) is the first safety outcome. In our OAC Surveillance Ambulatory (Medicine Unit, Colleferro's Hospital) we followed 426 P with AF evaluating the efficacy/safety of Warfarin (W) vs NOACs [Dabigatran (D), Rivaroxaban (R), Apixaban (A) and Edoxaban (E)].

**Methods:** 74P (39F, 35M; 76±6 ys) with NVAF in W were compared with P in naïve NVAF, of which, 116 in D (61F, 55M, 74±5ys), 93 in R (33F, 60M, 75±6 ys), 101 in A (54F, 47M, 81±5 ys) and 42 (19F, 23M, 80±5 ys) in E. We tested comorbidity, previous thromboembolic events (TE), haemorrhagic events (HE), renal/hepatic diseases, diabetes and cardiovascular events (CE). CHA2DS2-Vasc $\geq 1$  in men,  $\geq 2$  in women, HASBLED  $\geq 3$  for all NOACs P. Every P was asked own preference (monotherapy/bisdie) before prescribing NOAC.

**Results:** In VKA group we checked 1 cardiovascular death (CD), 3CE, 4TE, 2HE. In D no CD, no fatal/non fatal strokes, no HE. In R 1 CD, no fatal/non-fatal strokes, 4 major HE (digestive). In A 2CD, 1TE (related to poor adherence to therapy), no HE. In E no events. Discussion: Our data report HE (digestive) in R group, no intracranial bleeding with NOAC, no events in P in A with renal failure and no complication in E group.

**Conclusions:** Choice of OAC is a combination of TR/HR scores, clinical evaluation and P preferences. We consider low doses of

NOACs in elderly, D or R in younger P. We suggest A and E in P with renal disease. E, despite the few cases, is preferable in monotherapy.

### A case of post infective Graves' disease

M. Gagliano<sup>1</sup>, G. Bandini<sup>1</sup>, C. Piazzai<sup>1</sup>, N. Palagano<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, C. Marchiani<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, A. Mele<sup>1</sup>, P. Bernardi<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina ad Alta Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

**Introduction:** Graves' Disease is an autoimmune condition of the thyroid and the most common cause of hyperthyroidism. It results from the thyroid stimulating immunoglobulin (TSI), an antibody that has similar effects to thyroid stimulating hormone (TSH), causing the thyroid to produce an excess of hormone. An infection may trigger antibodies which cross-react with the human TSH receptor (TSHr), a phenomenon known as antigenic mimicry. Fibroblasts in the orbital tissues may express TSHr. This explains why TSI cause exophthalmos.

**Case report:** A 45 years old woman was admitted for cervical tumor, fever, and cough in the last few weeks. Physical examination showed sinus tachycardia, bilateral exophthalmos, cervical murmur and hard lower limbs edema. Blood tests proved an increase of RCP (24 mg/L), fT3 (21.27 pmol/L) and fT4 (103 pmol/L) with TSH<0.005 mU/L. TSI were positive (126 U/L). Thorax radiography proved a mediastinum enlargement with left dislocation of trachea. A thyroid ecocolor Doppler showed signs of thyroid hypertrophy, inhomogeneous parenchymal ecostructure and increased vascularization. We started high dose of methimazole (15 mg+10 mg+10 mg daily) and propranolol 40 mg tid resulting in a fast control of the heart rate and the improvement of the symptoms.

**Conclusions:** Graves's Disease should be suspected in case of cervical tumor, exophthalmos and hyperkinetic circulation arising after an infection. Exophthalmos and pretibial myxedema are specific signs of GD, being rare in other forms of hyperthyroidism. TSI and thyroid ecography are useful tools to diagnose the condition.

### Un regime alimentare mirato migliora sensibilmente la compliance alla terapia con Tecifidera nella sclerosi multipla

I. Gagliardi<sup>1</sup>, S. Bucello<sup>2</sup>, V. Drago<sup>2</sup>, L. Marturano<sup>2</sup>, R. Tarantello<sup>2</sup>, R. Vecchio<sup>2</sup>, R. Riscicato<sup>3</sup>

<sup>1</sup>Servizio Dietologia, P.O. Augusta, ASP Siracusa; <sup>2</sup>UOS Neurologia, P.O. Augusta, ASP Siracusa; <sup>3</sup>UOC Medicina Interna, P.O. Augusta, ASP Siracusa, Italy

**Premessa e Scopo dello studio:** Recenti evidenze sottolineano il ruolo della corretta nutrizione nella modulazione della risposta infiammatoria cronica sia a livello periferico che centrale. Un'adeguata gestione alimentare in patologie quali la Sclerosi Multipla diventa cruciale anche nella gestione di alcuni eventi avversi legati alla somministrazione di terapie orali di recente introduzione. Gli effetti collaterali gastrointestinali (nausea, vomito, diarrea, crampi addominali) rappresentano una limitazione all'utilizzo di particolari farmaci orali di recente introduzione, quali il DimetilFumarato (Tecifidera), causando una precoce discontinuazione della terapia in circa il 12-16% dei pazienti.

**Materiale e Metodi:** Presso il nostro Centro SM, in collaborazione con la dietista e previa somministrazione di un questionario sulle abitudini alimentari, è stato messo a punto un particolare regime alimentare che, incrementando il tempo di svuotamento gastrico e riducendo quindi la velocità di assorbimento del farmaco, ha permesso di minimizzare la comparsa di eventi avversi gastrointestinali, riducendo in modo significativo la *rate discontinuation*.

**Risultati:** L'utilizzo del regime alimentare proposto, ha permesso di limitare la rate discontinuation a circa l'1%, ben al di sotto di quanto segnalato in letteratura.

**Conclusioni:** La creazione di un piano alimentare personalizzato ha permesso, il raggiungimento del target terapeutico, e del corretto BMI, anche in relazione ad esigenze ed abitudini alimentari dei singoli pazienti. Migliora le cure, ed è "patient-centered".

### Carbapenem-resistant *Klebsiella pneumoniae* bloodstream infection: a retrospective analysis

M. Galie<sup>1</sup>, A. Rosato<sup>1</sup>, A. D'Acci<sup>2</sup>, A. Siddu<sup>2</sup>, C. Santini<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale Vannini, Roma; <sup>2</sup>U.O.C. Laboratorio Analisi, Ospedale Vannini, Roma, Italy

**Background:** Bloodstream infections (BSIs) due carbapenem-resistant *Klebsiella pneumoniae* (CR-KP) are associated with prolonged hospital stay and increased mortality.

**Aim of the study:** We retrospectively evaluated the epidemiological, microbiological and clinical characteristics of CR-KP BSIs.

**Methods:** A retrospective analysis of data of CR-KP BSI patient admitted to our hospital between Jan 1, 2014 and Dec 31, 2016 was performed. The severity of illness was calculated by the SOFA score. Risk factors related to the CR-KP, comorbidities, probable source of infection, prior antibiotic therapy were collected and treatment outcomes were analyzed.

**Results:** 28 of 50 KP-BSI were caused by CR-KP (56%); out of these 25 (89%) were nosocomial infection and 13 were acquired at medical wards. The most frequent comorbidities were: cerebrovascular disease (76%) and cardiovascular disease (52%). The most common infection sources were: e.v. catheter (48%), urinary tract (16%) and intra-abdominal (16%); 20% were primary BSI. Beta-lactams and carbapenems were previously administered in 52% and 32% of patients. The mortality among CR-KP BSI pts was 64.2% (72.2% for SOFA score  $\geq 4$ , 50% for SOFA score <4), compared with a mortality of 50% among carbapenem-susceptible KP (CS-KP) BSI (66% for SOFA score  $\geq 4$ , 30% for SOFA score <4). The use of carbapenem as initial empiric treatment didn't affected the prognosis.

**Conclusions:** CR-KP BSIs are mostly nosocomial acquired and half of them are observed in medical wards. Mortality was higher than for CS-KP BSI, in particular among less compromised patients.

### Correlations between nailfold microangiopathy and finger dermal thickness in systemic sclerosis

F. Gallucci<sup>1</sup>, R. Buono<sup>1</sup>, C. Mastrobuoni<sup>1</sup>, A. Parisi<sup>1</sup>, R. Russo<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>Internal Medicine Dept, Unit 3, Cardarelli Hospital, Napoli, Italy

**Objectives:** The study has been carried out to detect possible correlations between nailfold microangiopathy severity and finger dermal thickness (DT) in systemic sclerosis (SSc) patients.

**Materials and Methods:** Eighteen SSc patients, 4 M (22.2%) and 14 F (77.8%), mean age 56.5 years (range 30-69), and 14 healthy subjects, mean age 53.4 years (range 32-73), 3 M (21.4%) and 11 F (78.6%) were enrolled. All patients and controls underwent detailed nailfold videocapillaroscopy (NVC; 200x contact optical probe, image analysis software; Videocap, DS Medica, Milano) to classify (early, active and late pattern) and score (semi-quantitative rating scale) the severity of microangiopathy. Both modified Rodnan skin score (mRss) and skin high-frequency ultrasound were used to assess finger DT.

**Results:** Six SSc pts showed "early", 8 "active" and 4 "late" scleroderma pattern, respectively. A positive correlation was found between the degree of the nailfold microvascular damage severity and both ultrasound-DT ( $r=0.58$ ) and mRss values ( $r=0.78$ ). In particular, ultrasound-DT and mRss were found progressively higher in patients with the three different NVC patterns of microangiopathy. SSc patients showed a higher ultrasound-DT at the level of the fingers than healthy subjects ( $p<0.001$ ).

**Conclusions:** Our findings demonstrate a relationship between nailfold microangiopathy severity evaluated by means of NVC and ultrasound and clinical assessed DT in SSc patients.

### Daclatasvir and sofosbuvir for chronic hepatitis C genotype 2 in a patient with hereditary spherocytosis

E. Garlatti Costa<sup>1</sup>, M. Gheretti<sup>1</sup>, S. Grazioli<sup>1</sup>, M. Caprioli<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone, Italy

**Introduction:** Chronic hepatitis C genotype 2 can be treated with sofosbuvir and ribavirin for 12 or 24 weeks according to staging. However, haemolytic anemia as hereditary spherocytosis is a con-

troindicazione to ribavirin regimen treatment. In these circumstances, hepatologist can prescribe an alternative interferon free treatment.

**Materials and Methods:** A 50-years old woman was referred to our Department because of chronic hepatitis C genotype 2 known from 1996. Her clinical history revealed hereditary spherocytosis, discovered when she was 20 years old. On 1996 she was submitted to elective cholecistectomy for cholelithiasis. Liver stiffness measurement was equal to 10 kPa (F3 according to Metavir staging) and abdomen ultrasound showed splenomegaly (13 cm) and regular liver structure. Her exams showed WBC 6450/mmc Hb 10.4 g/dl PLT 171000/mmc ALT 50 U/L GGT 13 U/L total bilirubin 4.0 mg/dl direct 0.4 mg/dl HCV RNA 625000 UI/ml in absence of HIV/HBV coinfections. Treatment with sofosbuvir 400 mg die and daclatasvir 60 mg die for 12 weeks was proposed. Therapy was well tolerated except for headache, after 4 weeks HCV RNA was equal to 18 UI/ml and transaminases were normal. During treatment, values of hemoglobin and bilirubin remained stable and sustained virological response (HCV RNA negative after 12 weeks of the end's therapy) was reached.

**Conclusions:** Daclatasvir and sofosbuvir for 12 weeks is safe and efficacious for the therapy of chronic hepatitis C genotype 2 in those patients with contraindications to ribavirin's use.

### Treatment of refractory *Clostridium difficile* infection: vancomycin, metronidazole and....what else?

E. Garlatti Costa<sup>1</sup>, S. Grazioli<sup>1</sup>, M. Ghersetti<sup>1</sup>, M. Caprioli<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone, Italy

**Introduction:** *Clostridium difficile* is the leading cause of hospital-acquired diarrhea. Oral vancomycin or oral metronidazole can be used as treatment. However, in some cases, these drugs are not efficacious and clinicians have to face with the problem of refractory *Clostridium difficile* infection (CDI).

**Materials and Methods:** A 90-years old man was admitted to our Hospital for fever and diarrhea from one week before. Anamnestic data revealed a recently antibiotic treatment with amoxicillin/clavulanic acid 1gr tid os for 5 days because of urinary tract infection (UTI). The diagnosis of CDI was made by the presence of diarrhoea with a positive enzyme immunoassay test for detection of *C. difficile* toxin A. His exams showed leucocytosis, hypoalbuminemia, rise of creatinine level and low levels of potassium. Toxic megacolon was excluded with abdomen X-ray. We initially started metronidazole 500 mg q8h os but after 5 days of persistent diarrhea, we switched to vancomycin 500 mg q8h os. The patient did not improve after 7 days of vancomycin monotherapy and so finally, we introduced teicoplanin (200 mg os for 14 days) with resolution of the infection.

**Conclusions:** Clinicians should consider oral teicoplanin as a potential treatment for complicated refractory *Clostridium difficile* infection (CDI).

### Chronic hepatitis C and diabetes in the direct antiviral agents era: any news?

E. Garlatti Costa<sup>1</sup>, C. Miranda<sup>1</sup>, M. Ghersetti<sup>1</sup>, E. Bidoli<sup>2</sup>, S. Grazioli<sup>1</sup>, V. Benetton<sup>1</sup>, M. Maset<sup>1</sup>, G. Zanette<sup>1</sup>, M. Caprioli<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone; <sup>2</sup>Unit of Cancer Epidemiology CRO Aviano, Italy

**Introduction:** Diabetes is often associated with hepatitis C virus infection. Successful HCV treatment may improve glycemic control. Our aim is to evaluate glycemic control and the influence of diabetes on LSM in patients who achieved SVR24 after DAAs therapy.

**Materials and Methods:** Between January 1, 2015 and March 1, 2016, 146 patients with HCV infection were treated on the basis of AIFA rules. We used haemoglobin A1c (HgbA1c) as an indicator of glycemic control. LS was measured using a FibroScan instrument. The values of HgbA1c and LSM before beginning and 24 weeks after the end of therapy were retrospectively collected.

**Results:** Of a total of 146 patients with hepatitis C, 17 patients (13 M and 4 F) (12%) were also diabetic. Median age of these subjects was 69 years. Genotype 1 (8/17) and genotype 2 infections (8/16) were the most prevalent in the diabetic HCV patients while only one patient had infection sustained from genotype 3 and one patient was coinfecting HIV/HCV. The majority (16/17) were well compen-

sated cirrhotics (14 CPTA and 3 CPT B). Ribavirin regimen treatment was prescribed in 8 patients. All 17 patients achieved SVR24. We registered a decrease of HgbA1c values (50 mmol/L pre vs 43 mmol/L (SVR24), p-value =0.02 test Wilcoxon). LSM was not reliable in one patient because of ascites. The decrease of LSM was not significant (21.2 KPa vs 19.5 KPa).

**Conclusions:** Our results showed an improved glycemic control in type 2 diabetes following interferon free therapy of chronic hepatitis C. However, diabetes seems to negatively influence LSM improvement.

### Seronegative autoimmune hepatitis: the importance of liver biopsy for a correct therapy!

E. Garlatti Costa<sup>1</sup>, S. Grazioli<sup>1</sup>, M. Ghersetti<sup>1</sup>, M. Caprioli<sup>1</sup>, P. Casarin<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, AAS5, Pordenone, Italy

**Introduction:** According to literature, the prevalence of autoantibody-negative autoimmune hepatitis is equal to 10%. If there is a clinical suspect of autoimmune hepatitis, the absence of the conventional antibodies is not an evidence against an autoimmune aetiology.

**Materials and Methods:** A 47-years old man presented with signs and symptoms of acute hepatitis. He was icteric, asthenic in absence of fever or abdominal pain. His history was negative for risk factors (alcohol, hepatotoxic drugs, sexual intercourse or bacterial infection as leptospirosis) of acute hepatitis. Biochemical tests showed WBC 8040/mmc Hb 13 g/dl PLT 229000/mmc ferritin 43142 ng/ml%transferrin's saturation 93% total bilirubin 15 mg/dl (direct 10.8 mg/dl) ALT 4761 U/L AST 1049 U/L GGT 791 U/L ALP 106 U/L albumin 3.5 g/dl INR 1.2. Total serum globulin concentrations and serum concentrations of alpha antitrypsin, copper and ceruloplasmin were normal. Viral (HAV Ab, HBsAg, HBcAb, HBsAb, HCV Ab, HIV Ab, EBV IgM, CMV IgM, toxoplasma IgM) and autoimmune (ANA, AMA, ASMA, aLKM, aDNA, ANCA) hepatitis panel were negative. Mutation in heterozygosity H63D for hemochromatosis was detected. Abdomen liver US was normal. Liver biopsy was performed with pathology suggestive an interface hepatitis and iron overload. Immunosuppressive treatment with steroid in conjunction with azathioprine was started with resolution of acute hepatitis. Then, the patient was submitted to regular phlebotomies.

**Conclusions:** Hepatologist has to perform liver biopsy if there is a doubt of seronegative autoimmune hepatitis.

### PET/TC nella diagnosi differenziale delle lombalgie

P. Ghiringhelli<sup>1</sup>, P. Novati<sup>1</sup>, L. Castelnovo<sup>1</sup>, L. Sali<sup>1</sup>, F. Saccardo<sup>1</sup>, M. Monza<sup>2</sup>, F. Piegai<sup>2</sup>, E. Covucci<sup>2</sup>, G. Favia<sup>2</sup>, M.G. Pravettoni<sup>3</sup>, E. Soldavini<sup>2</sup>

<sup>1</sup>ASST Valle Olona, UOC Medicina, P.O. Saronno (VA); <sup>2</sup>ASST Valle Olona, UOC Pronto Soccorso, P.O. Saronno (VA); <sup>3</sup>ASST Valle Olona, UOC Malattie Infettive, P.O. Busto Arsizio (VA), Italy

**Premesse e Scopo dello studio:** Il presente caso clinico richiama l'attenzione sull'uso non Oncologico della PET/TC

**Caso clinico:** Donna di 48 anni, obesa, ricoverata per febbre e lombalgia. Due mesi prima era caduta ed aveva subito un trauma alla colonna nel tratto di passaggio dorso-lombare con conseguente sintomatologia algica ed uso di antinfiammatori per via intramuscolare. Veniva sottoposta ad emocolture che mostravano la presenza di stafilococchi aurei. La RM della colonna dorso lombare mostrava la presenza di una degenerazione discale L1-L2. Veniva somministrata terapia con Amoxicillina/Clavulanato ev. ottenendo la defervescenza. La Paziente, dopo 10 giorni, veniva dimessa con la medesima terapia antibiotica per os. In seguito ricompariva febbre con riacutizzazione del dolore dorso lombare tale da rendere difficile la deambulazione. Venivano eseguite ulteriori emocolture e ripetuta una RM che mostrava i segni di edema osseo e di interessamento discale compatibili con spondilodiscite. Una PET/TC rilevava la presenza di aree ipermetaboliche a livello: del disco, dei corpi vertebrali di L1-L2 e del gluteo di destra compatibile, quest'ultimo, con accesso gluteo nella sede delle iniezioni intramuscolari. Veniva iniziata terapia con Linezolid prima ev e alla lisi della febbre per os. Veniva drenato l'ascesso gluteo. Dopo 6 settimane la Paziente appariva da più di 4 settimane apiretica. LA PET/TC di controllo mostrava una modesta flogosi residua.

**Conclusioni:** In accordo con la letteratura la PET/TC è un affidabile strumento per la diagnosi di spondilodiscite.

#### Dall'ascite alla diagnosi: la sindrome di Budd-Chiari

L. Giampaolo<sup>1</sup>, D. Tirota<sup>1</sup>, G. Eusebi<sup>1</sup>, M. Finazzi<sup>1</sup>, L. Ghattas<sup>1</sup>, P. Montanari<sup>1</sup>, L. Poli<sup>1</sup>, A. Salemi<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>AUSL della Romagna, Medicina Interna IV, Cattolica (RN), Italy

**Introduzione:** La Sindrome di Budd-Chiari (BCS) è una rara condizione caratterizzata dalla occlusione delle vene sovraepatiche, legata a trombofilia congenita o acquisita. Recenti evidenze suggeriscono una possibile tendenza protombotica in pazienti con psoriasi.

**Case report:** Una donna di 64 aa con ci è stata inviata per il rilievo ecografico di disomogeneità epatiche multiple e versamento ascitico. In Anamnesi veniva riportata la recente insorgenza di una psoriasi palmoplantare ed una uveite anteriore. È stata effettuata una paracentesi ed è stata richiesta in una TC torace+addome. Ripetendo l'eco addome erano assenti i segnali Doppler delle vene sovraepatiche (VS) e del tratto intraepatico della vena cava inferiore (VCI), sospetti per sindrome di Budd-Chiari. Il sospetto è stato confermato in TC ed in CEUS. Sono state ricercate le cause più frequenti (neoplasie ematologiche, emoglobinuria parossistica notturna, Sd da anticorpi antifosfolipidi) risultate negative; lo studio coagulativo ha rilevato solo una eterozigosi G20210A della trombina; la colonscopia era negativa. È stata intrapresa terapia diuretica e con EBPM. Sono stati effettuati controlli ecografici e CEUS a 7-21-30 gg con progressiva completa ricanalizzazione della VCI e vene VS medie e sinistra, una parziale ricanalizzazione della VS dx e riduzione dell'ascite fino alla risoluzione della stessa.

**Conclusioni:** La sindrome di Budd-Chiari è una condizione rara, tuttavia la conoscenza della patologia e dei possibili fattori di rischio ne facilita la diagnosi.

#### La ecografia epatica con mezzo di contrasto nella sindrome di Budd-Chiari

L. Giampaolo<sup>1</sup>, D. Tirota<sup>1</sup>, G. Eusebi<sup>1</sup>, M. Finazzi<sup>1</sup>, L. Ghattas<sup>1</sup>, P. Montanari<sup>1</sup>, L. Poli<sup>1</sup>, A. Salemi<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>AUSL della Romagna, Medicina Interna IV, Cattolica (RN), Italy

**Introduzione:** La Sindrome di Budd-Chiari (BCS) è una rara sindrome determinata da trombosi delle vene sovraepatiche per fattori protrombotici acquisiti o congeniti. La Ecografia epatica con mezzo di contrasto (CEUS) è stata raramente impiegata in letteratura per lo studio della trombosi delle sovraepatiche (è disponibile un solo lavoro nella BCS in lingua cinese con studio di 38 pazienti).

**Caso clinico:** Una paziente di 64 anni è giunta alla nostra attenzione per la comparsa di ascite e lesioni epatiche diffuse. In ECO erano visibili disomogeneità diffuse ed ipertrofia del lobo caudato, al Doppler non era rilevabile flusso a vene sovraepatiche media e sinistra e nel tratto intraepatico della Vena Cava Inferiore (VCI). È stata posta diagnosi di Sindrome di Budd-Chiari. È stata effettuata CEUS mediante somministrazione di SonoVue 2.5 cc che ha mostrato un enhancement diffusamente disomogeneo in tutto il parenchima epatico in assenza di aree di focale wash-out. In CEUS era più chiaramente definibile l'estensione della trombosi, rilevando un esile passaggio di mdc nella vena sovraepatica media e nella porzione più ventrale della VCI intraepatica, dimostrando una trombosi parziale. Nessun passaggio di mdc era rilevabile a carico della vena sovraepatica sn, se non in un piccolo tratto alla sua origine. La pz è stata posta a tp con EBPM ed il successivo follow-up è stato effettuato mediante CEUS con documentazione di una progressiva ricanalizzazione.

**Conclusioni:** La CEUS può essere impiegata quale metodica contrastografica per confermare la diagnosi e definire l'estensione della sindrome di Budd-Chiari.

#### Una pancreatite acuta in donna ucraina decisamente non alcol relata: la sindrome da IgG4

L. Giampaolo<sup>1</sup>, M. Finazzi<sup>1</sup>, G. Eusebi<sup>1</sup>, L. Ghattas<sup>1</sup>, P. Montanari<sup>1</sup>, L. Poli<sup>1</sup>, A. Salemi<sup>1</sup>, D. Tirota<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>AUSL della Romagna, Medicina Interna IV, Cattolica (RN), Italy

Una donna Ucraina di 53 aa veniva ricoverata per pancreatite acuta (4 mesi prima un episodio analogo da cui esitava una pseudocisti della coda indagate a TC e RMN). All'eco addome riscontro di lesione cefalopancreatica con dilatazione dell'albero biliare, confermata a TC (17 mm) ed associata, a TC, a flogosi del grasso in prossimità della nota cisti. Sono state effettuate 2 EUS+FNAB negative per neoplasia o infiltrazione linfocitaria. Ad esami riscontro di marcato rialzo IgG4 (12xULN). Rivalutazione anamnesi con interprete: rifeti edemi periorbitari e tumefazione sottomandibolare ricorrenti. È stata posta diagnosi di verosimile Sindrome da IgG4 con pancreatite autoimmune tipo 1, fibrosi retroperitoneale, orbitopatia da Ig4 e sialoadenite di Mikulicz; A criteri HISORt mancanza criterio istologico per diagnosi conclusiva, per cui intrapresa terapia steroidea ex adjuvantibus. Dopo 1 mese normalizzazione lipasi, riduzione IgG4, regressione lesione pancreatica, fibrosi retroperitoneale, orbitopatia e sialoadenite. A 7 mesi da inizio tp nuovo episodio di pancreatite acuta, a TC addome comparsa di multiple nuove cisti con aspetti infiltrativi su flessura splenica. È stata ripetuta EUS+FNAB su cisti con riscontro di epitelio mucinoso su parete, sollevando il sospetto di una neoplasia mucinosa. Dopo 2 settimane episodio di addome acuto con aspetti TC addome di rottura di cisti addominale. Paziente sottoposta a pancreatectomia distale. Istologico conclusivo di pseudocisti con presenza su linfonodi regionali di 50% di plasmacellule producenti IgG4, compatibile con Sindrome da IgG4.

#### "Frozen": storia di una ragazza catatonica

A. Giani<sup>1</sup>, I. Bracali<sup>1</sup>, L. Guarducci<sup>1</sup>, E. Calabrese<sup>1</sup>, M. Bertoni<sup>1</sup>, A. Foschini<sup>1</sup>, P. Lotti<sup>1</sup>, R. Martini<sup>1</sup>, G. Mugnaioni<sup>1</sup>, T. Restuccia<sup>1</sup>, F. Risaliti<sup>1</sup>, S. Zanieri<sup>1</sup>, M.E. Di Natale<sup>1</sup>

<sup>1</sup>Medicina 2, Ospedale Santo Stefano, Prato, Italy

**Premessa:** I disturbi del movimento ad etiologia iatrogena includono il DIP (drug-induced parkinsonism), la discinesia tardiva, la distonia tardiva, l'acatisia, il mioclono ed il tremore; tra queste il DIP è il disordine più comune, prevalentemente quale effetto collaterale di antipsicotici sia tipici che atipici.

**Caso clinico:** Z.H., donna cinese di 36 anni, accedeva al DEA il 30/8/16 per febbre elevata e dolore addominale con aumento delle transaminasi ed inversione ALT/AST, CPK nella norma; ecografia addome ed Rx torace nei limiti. In anamnesi: sindrome depressiva, disagio sociale e familiare; recente ricovero presso SPDC per sindrome acuta da stress con spunti psicotici trattata con paliperidone 150 mg i.m. il 21/8/16. Sierologia per virus epatotropi, emocolture ed urinocoltura negative. Progressivo rallentamento ideo-motorio fino a stato catatonico con rigidità diffusa, incapacità a muoversi, parlare ed alimentarsi, alterazioni disautonomiche (tachicardia sinusale, iperidrosi, ritenzione urinaria acuta) in assenza di febbre. TC e RM encefalo, EEG, rachicentesi nei limiti con evidenza di liquor limpido ed esame chimico-fisico e culturale negativo (positività per bande oligoclonali nel liquor). Trattata con biperidene e diazepam e.v.; inseriti sondino naso-gastrico e catetere vescicale con progressivo miglioramento di eloquio, capacità motoria e deglutizione ma persistenza di episodi di ritenzione urinaria alla rimozione del catetere.

**Conclusioni:** Tale caso clinico deve essere posto in diagnosi differenziale tra DIP e catatonica maligna per gli elementi di disautonomia.

#### Platelet changes in patients with hepatitis C virus-related liver cirrhosis after directly acting antiviral therapy

L. Giannitrapani<sup>1</sup>, A. Terranova<sup>1</sup>, A. Capitano<sup>1</sup>, A. Ferlita<sup>1</sup>, A. Licata<sup>1</sup>, G. Montalto<sup>1</sup>, M. Soresi<sup>1</sup>

<sup>1</sup>Dipartimento Biomedico di Medicina Interna e Specialistica, Palermo, Italy

**Background and Purpose of the study:** Thrombocytopenia is the most common haematological abnormality in patients with Liver Cirrhosis and it is caused by multiple factors. This study evaluated platelets (PLT) count changes in patients with HCV related LC after DAAs therapy.

**Materials and Methods:** We enrolled 83 patients with LC. In all

patients were evaluated liver function tests and PLT count at baseline (BL), at end of therapy (ET) and three months post treatment (PostT), Elastography and ultrasound (US) at BL, and US at PostT. LC diagnosis was histological in 13 patients, in 71 with liver stiffness >12 kPa. All patients were SVR (58 patients had DAAs therapy without, 25 with Ribavirin). 79% were genotype 1b. US diameter of spleen (DS) was measured. The paired t Student's test was used.

**Results:** PLT at BL were significantly lower compared to both ET and PostT,  $P < 0.0001$ , while in ET were higher than in PostT,  $P < 0.0001$ . In group without Ribavirin PLT at BL were significantly lower compared to both ET and PostT (respectively  $P < 0.001$ ). PLT at PostT were higher than at ET but not significantly ( $P = ns$ ). In Ribavirin group PLT at BL were significantly lower compared to both ET and PostT,  $P < 0.001$ , while in ET were significantly higher than in PostT,  $P < 0.0001$ . DS at enrollment vs PostT didn't show any statistical difference.

**Conclusions:** PLT increase after antiviral treatment in absence of any difference between spleen dimensions before and after therapy confirm that thrombocytopenia in cirrhotic patients is not only due to portal hypertension but also to a direct effect of HCV.

### An unusual calf lesion in an immunocompromised patient

M. Gili<sup>1</sup>, E. Charbonnier<sup>1</sup>, L. Chasseur<sup>1</sup>, F. Chiacchiarini<sup>1</sup>, E. Costantini<sup>1</sup>, S. Gallo<sup>1</sup>, C. Marinucci<sup>1</sup>, S. Morra Di Cella<sup>1</sup>, M. Porta<sup>1</sup>

<sup>1</sup>Università degli Studi, Ospedale S. Giovanni Battista, Torino, Italy

A 71 year old male patient presented in October 2015 with a swollen and tender area in his right calf.

**Past history:** In 2006 chronic lymphatic leukemia was diagnosed, which was still in progression despite many cycles of immune- and chemotherapy. In 2014, a nodule appeared at the left pulmonary apex, increasing in volume over the following radiograms. Further microbial and histological investigations were inconclusive and the lesion was interpreted as pulmonary localization of the disease. A new immunotherapy cycle was then administered but the lesion enlarged.

**Recent history:** In September 2015 the patient reported persisting fever despite wide spectrum antibiotics. In October a tender swelling appeared at the right calf, which was initially considered a spontaneous hematoma but worsened over the following weeks. At the same time a skin lesion appeared on the back, where a transcutaneous biopsy had been performed. The leg lesion was drained and a culture revealed growth of *Nocardia*. Trimethoprim/sulfamethoxazole (1200/240mg tid) was started, leading to rapid improvement. A few months later the germ developed resistance to trimethoprim, which was replaced by ceftriaxone and an aminoglycoside, obtaining complete resolution of the infection. A new course of immunotherapy could be started in May 2016.

**Nocardiosis:** Immunodeficiency states, particularly in hematological patients, is a main risk factor for disseminated Nocardiosis. The infection can spread to almost every tissue and, if not treated with prolonged appropriate antibiotic therapy, the prognosis is poor.

### Connection between abdominal pain, ocular ptosis and cranial surgery: serendipity or medical skill? Case report on a rare, potentially lethal, infectious manifestation of diabetes mellitus

I. Gilotta<sup>1</sup>, G. Tirelli<sup>2</sup>, E. Quatela<sup>2</sup>, F. Mastrobuoni<sup>3</sup>, R. Antonione<sup>1</sup>, R. Burri<sup>1</sup>, A. Cosenzi<sup>1</sup>, E. Costa<sup>1</sup>, P. Della Loggia<sup>1</sup>, G. Di Sopra<sup>1</sup>, M.G. Lentini<sup>1</sup>, D. Belgrado<sup>1</sup>, S. Turchetto<sup>1</sup>

<sup>1</sup>AAS2 Bassa Friulana-Isontina, SOC Medicina Interna, Ospedale di Monfalcone (GO); <sup>2</sup>Clinica Otorinolaringoiatrica, Università degli Studi di Trieste; <sup>3</sup>Azienda Sanitaria Integrata di Udine, Dipartimento di Chirurgia Specialistica, SOC Otorinolaringoiatrica, Udine, Italy

A 35 year old man with no history of substance or drug abuse was admitted to our hospital for abdominal pain. On examination, the patient was alert and fully oriented. Temperature, blood pressure, pulse, respiratory rate and oxygen saturation were normal. Heart sounds, lung and neurological examination were negative. The ab-

domen was tender but no signs of peritonism were detected. Blood tests showed hyperglycemia with ketoacidosis and elevation of inflammatory markers. Chest radiography was normal. He was admitted to our Medical Department where correction of ketoacidosis and empirical antibiotic therapy were initiated. The next day, right eye ptosis, edema and pain rapidly developed, leading to otorhinolaryngologist consultation and to urgent CT scan of the orbit and maxillary sinus regions. Important orbit cellulitis and optic nerve compression were revealed and a first, urgent, surgery was necessary. Ischemic lesions and hyphae were detected on histological examination and anti-fungine treatment was initiated. In the next few days, retinal necrosis was detected and a subsequent NMR showed ischemic disease progression to the palate. A second extensive surgery was performed (medial maxillectomy, ethmoidal-sphenoidectomy). Clinical conditions further deteriorated and an extensive thrombosis of the right carotid axis was detected, leading not only to low-molecular weight heparin therapy, but to a last, extremely demolishing neurosurgical intervention (bi-frontal craniotomy). Details and evolution of this rare fungal infection are described in our case report.

### Monitoraggio dei pazienti in trattamento con omalizumab presso l'Unità Operativa Complessa di Medicina Interna del Policlinico G. Martino

M.C. Giofrè<sup>1</sup>, F. Napoli<sup>1</sup>, S. Tomeo<sup>1</sup>, N. Laganà<sup>1</sup>, D. La Rosa<sup>1</sup>, A. Caruso<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

**Premesse e Scopo dello studio:** Abbiamo valutato il profilo di efficacia dell'omalizumab in una coorte di pazienti arruolati presso la nostra U.O.C.

**Materiali e Metodi:** Abbiamo analizzato dati demografici e clinici di 38 pazienti avviati al trattamento con omalizumab da giugno 2014 a dicembre 2015 reclutati presso gli ambulatori di Medicina Generale, Pneumologia e Medicina Interna. I criteri di inclusione prevedevano positività ad aero-allergene perenne, asma allergico persistente IgE mediato (30-1500UI/ml) non controllato con terapia standard e FEV1 <80%. I pazienti sono stati sottoposti a questionario "Asma Control Test", misurazione del peso corporeo, dosaggio IgE totali, Ab anti-aeroallergeni perenni e spirometria al tempo zero. Posologia e frequenza di somministrazione del farmaco è stabilita in funzione delle IgE e del peso corporeo. I pazienti arruolati sono stati rivalutati dopo 1, 3, 6 mesi dall'inizio del trattamento mediante spirometria e questionario ACT ed è stata rivalutata la terapia praticata (riduzione/sospensione della terapia cortisonica).

**Risultati:** Si è osservato un significativo aumento del FEV1 rispetto al basale già dopo la prima somministrazione. Dopo il sesto mese si è osservato un significativo aumento del punteggio medio ACT rispetto al basale e in 30 pazienti sospensione dello steroide.

**Conclusioni:** Il farmaco ha determinato incremento del FEV1 con conseguente miglioramento della qualità di vita e sospensione del cortisone.

### Lower rate of hypoglycemia with IDegLira versus insulin glargine regardless of dosing time or hypoglycemia definition in patients with type 2 diabetes

C. Giordano<sup>1</sup>, R. Chen<sup>2</sup>, E. Jaekel<sup>3</sup>, I. Lingvay<sup>4</sup>, H. Jarlov<sup>5</sup>, L. Lehmann<sup>5</sup>, G. Lastoria<sup>6</sup>, S. Heller

<sup>1</sup>Diabetologia e Malattie del Ricambio, Università di Palermo, Italy; <sup>2</sup>Concord Repatriation General Hospital, Sydney, NSW, Australia; <sup>3</sup>Hannover Medical School, Hannover, Germany; <sup>4</sup>UT Southwestern Medical Center, Dallas, TX, USA; <sup>5</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>6</sup>Novo Nordisk Medical Affairs Rome, Italy; <sup>7</sup>University of Sheffield, Sheffield, United Kingdom

In the DUAL V trial, patients assigned to insulin degludec/liraglutide (IDegLira) had greater HbA1c reduction (end of trial [EOT] HbA1c 6.6 vs. 7.1%) versus insulin glargine (IG) with a significantly lower confirmed hypoglycemia rate (original definition: plasma glucose [PG] <56 mg/dL or unable to self-treat). This post hoc analysis investigated whether the lower hypoglycemia rate with

IDegLira versus IG was consistent irrespective of dosing time (AM [00:00–11:59] or PM [12:00–23:59]) or definition of hypoglycemia used (overall/nocturnal confirmed, with/without symptoms, ADA documented symptomatic). Hypoglycemia rates (episodes per patient-year exposure [PYE]) were significantly lower with IDegLira versus IG, whether both were dosed at AM or PM, for confirmed hypoglycemia (AM: 2.18 vs. 6.86 PYE; PM: 2.26 vs. 4.59 PYE) and for nocturnal confirmed hypoglycemia (AM: 0.22 vs. 1.67 PYE; PM: 0.23 vs. 1.12 PYE) (Fig 1A). The rate of hypoglycemia was significantly lower for IDegLira versus IG for confirmed (2.23 vs. 5.05 PYE), confirmed symptomatic (1.56 vs. 3.75 PYE) and ADA documented symptomatic (8.03 vs. 15.63 PYE) (Fig 1B). Nocturnal hypoglycemia rates were significantly lower (62–84%) for IDegLira versus IG across the different definitions used. In conclusion, despite a lower EOT HbA1c, the hypoglycemia rate is lower with IDegLira versus IG regardless of dosing time or hypoglycemia definition.

### In-hospital mortality in very elderly hypertensives with underlying heart failure: renin-angiotensin-aldosterone system blockade makes the difference

F. Giulietti<sup>1</sup>, P. Ballestri<sup>1</sup>, F. Spannella<sup>1</sup>, G. Cocci<sup>1</sup>, F.E. Lombardi<sup>1</sup>, E. Borioni<sup>1</sup>, R. Sarzani<sup>1</sup>

<sup>1</sup>Clinica di Medicina Interna e Geriatria IRCCS-INRCA, Università Politecnica delle Marche, Ancona, Italy

**Introduction and Aims:** Heart failure (HF) diagnosis and treatment are often late or missed in very elderly. Aim: to assess the prevalence of underlying HF and evaluate the association with in-hospital mortality, in relation to anti-hypertensive drugs taken before hospitalization, in very elderly hypertensives.

**Methods:** Prospective observational study of 277 very elderly hypertensives. Inclusion criteria: no history and no admission diagnosis of HF, at least one symptom/sign of HF, history of treated hypertension. HF diagnostic criteria: admission NT-proBNP  $\geq$  1800 pg/ml (validated age-adjusted cut-off), echocardiography.

**Results:** Mean age: 88 $\pm$ 5 years. Males: 121 (43.7%). Patients with NT-proBNP  $\geq$  1800 pg/ml: 68%. Patients with atrial fibrillation and pneumonia had a significant increased risk of HF (OR=2.99; p<0.001 and OR=1.90; p=0.034, respectively). NT-proBNP  $\geq$  1800 pg/ml was associated with greater in-hospital mortality, regardless admission diagnoses (OR=2.7; p=0.021). Patients already taking ACE inhibitors (ACE-I) or angiotensin receptor blockers (ARB) before admission had lower in-hospital mortality, even after adjusting for covariates (OR=0.36; p=0.017): age, sex, albumin, eGFR, HF, leukocytes.

**Conclusions:** Underlying HF was extremely prevalent in very elderly hypertensives hospitalized, regardless medical causes of admission. Those who were already taking ACE-I or ARB to treat hypertension, showed lower in-hospital mortality, regardless HF presence. ACE-I or ARB, unlike other anti-hypertensive drugs analyzed, affect in-hospital mortality in very elderly hypertensives.

### Itch: a real scratchy matter

M. Gola<sup>1</sup>, M. Greco<sup>1</sup>, M. Pradelli<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, Division of Gastroenterology, NOCSAE, Modena, Italy

A 70 year-old woman in follow-up of ileum Crohn's disease was admitted to our Institutions for lower limb edema and skin lesions with intense pruritus and tenderness. He was found to have skin lesions as multiple papules on the inferior extremities with lichenoid reaction. Laboratory investigations showed macrocytic anemia. She also was found to have normal iron studies. Further, additional blood tests showed elevated positive anti-parietal cell and intrinsic factor antibodies. Inflammatory markers were all negative. PCS and bowel ultrasound showed quiescent bowel disease. EGDS revealed chronic atrophic gastritis. Persisting unknown the pathogenesis of skin lesions, we have autoimmune study and TC total body. The findings are results all negatives. Finally, suspecting a cryoglobulinemic syndrome, we measured marker of HCV that was found to be seropositive (539718 IU/mL, genotype 1b). It was a cryoglobulinemia type II. The cryocrit was

low (3%). Transient elastography showed a mild degree of fibrosis. A cutaneous biopsy was performed. The histopathologic findings point to a chronic inflammatory infiltrate and HCV RNA in the biopsy was positive (188,6IU/ $\mu$ g RNA). The patient started DAAs. After four weeks skin lesions disappeared. HCV is frequently accompanied by immune-related extrahepatic manifestations affecting the skin (palpable purpura, maculopapular rash, ulcers) that involves predominantly the lower limbs. The success of the new direct antiviral drugs in the management of HCV led to their introduction as therapeutic agents in the extrahepatic presentations.

### Un caso di chronic organizing pneumonia secondario ad uso di carbamazepina

C. Gozzi<sup>1</sup>, M. Bertesi<sup>1</sup>, G. Violi<sup>1</sup>, G. Papi<sup>1</sup>, C. Di Donato<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Carpi, AUSL Modena, Italy

ZN, paziente di 60 anni giungeva ricoverato per il persistere da alcune settimane di tosse e dispnea da sforzo. In PS eseguiva Rx torace che era negativo per lesioni p-p a focolaio in atto. All'EGA: PO2 64 mmhg, PCO2 36 mmhg, PH 7,47. In anamnesi: epilessia in terapia con carbamazepina. La Tc torace, eseguita per escludere una embolia polmonare, documentava estese aree di addensamento parenchimale a vetro smerigliato sparse in maniera simmetrica in ambedue i polmoni in misura prevalente ai lobi inferiori. Agli esami biochimici: Gb 4800, modico aumento della PCR 4,1 mg/dl, ipogammaglobulinemia all'elettroforesi proteica (9,1%). Negative le ricerche per Legionella, Pneumococco e Mycoplasma pneumoniae. Il quadro clinico associato al riscontro di ipogammaglobulinemia ci ha indotti a ipotizzare un ruolo eziopatogenetico della carbamazepina alla base della COP (Chronic Organizing Pneumonia). Veniva pertanto sostituito l'antiepilettico con lamitrigina. Si impostava terapia cortisonica che il paziente proseguiva al domicilio scalando gradualmente in circa 2 mesi. La Tc torace effettuata dopo 3 mesi non apprezzava più l'esteso quadro di ground glass precedentemente descritto. Il paziente riferiva benessere. Come riportato anche in letteratura la COP può riconoscere diverse cause come farmaci (amiodarone, statine), infezioni respiratorie, trattamento radiante, patologie autoimmuni o essere idiopatica. Quello sopra riportato è un raro caso di COP indotto da carbamazepina con associata ipogammaglobulinemia. Il meccanismo eziopatogenetico che vi è alla base non è chiaro.

### Un caso di mesenterite sclerosante

C. Gozzi<sup>1</sup>, M. Bozzoli<sup>1</sup>, L. Santoro<sup>1</sup>, G. Papi<sup>1</sup>, C. Di Donato<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Carpi, AUSL Modena, Italy

BA, donna di 59 anni veniva ricoverata per un dolore addominale continuo con alvo chiuso a feci e gas da 24 ore, con una iniziale reazione di difesa peritoneale all'esame obiettivo. La TC addome mostrava un incremento della densità del grasso sia pararenale che lungo la radice del mesentere con ingrandimento dei linfonodi adiacenti all'origine dei vasi mesenterici superiori ed inferiori, senza segni di occlusione intestinale o altri reperti di rilievo. Agli esami biochimici: modico incremento della PCR e della VES. Nel sospetto di una mesenterite sclerosante veniva impostata terapia steroidea ev a cui si associava tamoxifene. Si assisteva ad un progressivo miglioramento della sintomatologia clinica della paziente. La terapia steroidea veniva proseguita a scalare al domicilio per 3 mesi e quella con tamoxifene per 6. La TC addome di controllo rilevava una completa risoluzione del quadro precedentemente descritto. La mesenterite sclerosante rientra nel gruppo delle malattie infiammatorie/fibrosanti. L'eziopatogenesi non è chiara. Tra le cause scatenanti la letteratura riporta traumi o interventi chirurgici, infezioni, sindromi paraneoplastiche, autoimmunità. I sintomi possono essere vari: dolore addominale ricorrente, perdita di peso, febbre, costipazione o diarrea. La diagnosi certa si ha con la laparotomia esplorativa e la biopsia del tessuto ma la TC addome o la RMN sono spesso sufficienti per l'inquadramento diagnostico e il follow up. Tra le terapie proposte quella più utilizzata è rappresentata da corticosteroidi associati a tamoxifene o azatioprina.



### High effectiveness of direct-acting agents in hepatitis C virus related cirrhosis in the "real world" setting

A. Grassi<sup>1</sup>, F. Mori<sup>2</sup>, P. Sordillo<sup>2</sup>, A. Fabbri<sup>1</sup>, G. Donati<sup>1</sup>, N. Celli<sup>1</sup>, M. Arlotti<sup>2</sup>, G. Ballardini<sup>1</sup>

<sup>1</sup>UO di Medicina Interna ed Epatologia, Ospedale Infermi, Rimini; <sup>2</sup>UO di Malattie Infettive, Ospedale Infermi, Rimini, Italy

**Introduction:** New anti HCV DAAs should significantly improve management of chronic HCV infection. We report data from the "real life experience" with DAAs in hard-to-treat cirrhotic patients.

**Patients:** 143 HCV+ cirrhotic patients (50.3% experienced) completed treatment with DAAs and 12 weeks post treatment follow up. Patients baseline characteristics were: male 65.7%; median age 55 (range 36-79); genotype (G)1a 43, G1b 36, G2 9, G3 49, G4 6. Scheduled treatments were: simeprevir (SIM)+sofosbuvir (SOF) or ledipasvir (LED)+SOF or daclatasvir (DAC)+SOF or viekirax+exviera (3D) ±ribavirin (RIB) 12/24 weeks for G1 patients; SOF+RIB or SOF+DAC 12-16 weeks for G2; SOF+RIB±DAC 24 weeks for G3; SOF+RIB or viekirax+RIB 24 weeks for G4.

**Results:** Global rate of sustained virological response (SVR) resulted 88.8%. No significant DAA related side effect has been reported; low grade anaemia induced RIB reduction in 37/124 patients (29.8%). SVR was 93.7% in G1 and 81.6% in G3 patients. If considering up to date AIFA guidelines 32 patients received suboptimal treatment with lower SVR rate with respect to 111 patients treated with optimal treatment (63.6% vs 96.4%,  $p=0.0001$ ). In particular, considering patients treated with optimal treatment only, SVR was 96.8% in 63 G1 patients (100% in 32 G1b patients) and 94.1% in 34 G3 patients.

**Conclusions:** New DAA confirm to be effective and well tolerated in a real world difficult-to-treat cirrhotic population. When DAA treatment is carefully chosen and strictly tailored to the patient, SVR rate appears to be not inferior with respect to registration studies.

### Endocardite batterica: quale confine tra terapia medica e trattamento cardiocirurgico?

D. Graziano<sup>1</sup>, M.M. D'Errico<sup>1</sup>, M.G. Tinti<sup>1</sup>, A. Varriale<sup>2</sup>, A. De Cata<sup>2</sup>, A. De Mattheis<sup>2</sup>, A. Mirijello<sup>2</sup>, M. Cassese<sup>3</sup>, A. Greco<sup>4</sup>, G. Serviddio<sup>1</sup>, S. De Cosmo<sup>2</sup>, G. Vendemmiale<sup>1</sup>

<sup>1</sup>Scuola di Specializzazione Medicina Interna e Geriatria, Università di Foggia; <sup>2</sup>U.O di Medicina Interna, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>3</sup>U.O. di Cardiocirurgia, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>4</sup>U.O di Geriatria, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG), Italy

**Premesse e Scopo dello studio:** L'endocardite rappresenta una patologia potenzialmente letale ad andamento acuto rapidamente progressivo o subacuto con febbre e sintomi aspecifici.

**Materiali e Metodi:** Paziente tossicodipendente, affetto da Schizofrenia paranoide cronica, Epatopatia HCV-relata, sottoposto a terapia antibiotica combinata per endocardite batterica acuta con vegetazioni mitraliche e tricuspidaliche associate a embolia settica.

**Risultati:** Maschio, 42anni, veniva trasferito c/o la nostra UO Medicina proveniente da altro ospedale dove era giunto per stato confusionale acuto, febbrile con RX torace e TC encefalo negativi. Qui veniva trattato empiricamente con Piperacillina/Tazobactam, Ceftriaxone, Linezolid. La RM encefalo mostrava focalità frontali e occipitali, indagate da puntura lombare che escludeva diagnosi di meningoencefalite. All'ecocardiogramma si documentava rottura di corda tendinea con vegetazioni multiple mitraliche e tricuspidaliche. Data la positività al Multiplex per S.Aureus veniva trattato con Teicoplanina, Daptomicina, Levofloxacina, Gentamicina, Ampicillina. Durante il ricovero c/o la nostra UO, l'Rx torace evidenziava nodularità multiple; l'ecografia addominale emboli settici epatici e renali; l'AngioTC encefalo ipodensità diffuse. In urgenza veniva quindi sottoposto a intervento di sostituzione bivalvole con protesi biologiche e successivo impianto PM bicamerale.

**Conclusioni:** La terapia antibiotica specifica può fallire in caso di vegetazioni ampie (>10mm) e mobili, l'intervento cardiocirurgico risulta risolutivo in questi casi.

### L'impatto della fragilità al Pronto Soccorso

A. Greco<sup>1</sup>, M. Greco<sup>1</sup>, G. Donofrio<sup>1</sup>, F. Addante<sup>1</sup>, M. Dagostino<sup>1</sup>, F. Giuliani<sup>2</sup>, A. Manfrini<sup>3</sup>, G. Serviddio<sup>4</sup>, G. Vendemmiale<sup>4</sup>, D. Sancarlo<sup>1</sup>, A. Greco<sup>1</sup>

<sup>1</sup>UOC Geriatria, Casa Sollievo Sofferenza, San Giovanni Rotondo; <sup>2</sup>Innovazione/Sistemi Inf CSS, San Giovanni Rotondo; <sup>3</sup>UOC PS CSS, San Giovanni Rotondo; <sup>4</sup>Cattedra di Geriatria, Università di Foggia, Italy

Recenti lavori indicano come la fragilità rappresenti una seria criticità per la gestione del paziente anziano al Pronto Soccorso (PS). Nella maggior parte dei casi tuttavia questa condizione viene determinata solo sulla base dell'età senza impiegare specifici indicatori. La Scala Prisma 7 è stata validata per la stima della fragilità nel Regno Unito come strumento rapido per la stima della fragilità nell'ospedale per acuti (tempo di somministrazione circa 4 minuti; score=>3 fragile; <3 resiliente). Nel periodo 16-23/1/2017 sono stati valutati tutti i pazienti ultra sessantacinquenni che sono affetti al PS dell'IRCCS "Casa Sollievo della Sofferenza". Tutti questi pazienti sono stati sottoposti a valutazione della fragilità mediante Prisma 7 ed alla rilevazione delle seguenti caratteristiche: età, sesso, codice triage, prestazioni in PS, ricovero/dimissione; in caso di ricovero: area di assegnazione (medica/chirurgica), durata della degenza, mortalità a 30 giorni e degenza media. Sono stati studiati 124 pazienti (58% maschi età media (anni) 78.29±7.92 di cui il 58.1% fragile. Questi: hanno ricevuto un maggior numero di prestazioni (4.3±0.8vs 2.1±0.7  $P<0.05$ ); hanno richiesto più frequentemente il ricovero (46.2% vs 8.1%  $p<0.05$ ) assegnato prevalentemente al Dipartimento di Medicina Interna (82%); hanno avuto una degenza media (9.8±6.2vs8.2±6.1) ed una mortalità a 30 giorni (87.5 vs 12.5  $p<0.01$ ) più elevate. La valutazione/gestione della fragilità rappresentano una delle sfide più importanti da affrontare con il PS e la Medicina Interna quali protagonisti principali.

### Olmesartan like coeliac enteropathy

G. Gregu<sup>1</sup>, S.L. Calvisi<sup>1</sup>, S. Cambule<sup>1</sup>, A.R. Fancello<sup>1</sup>, R. Patteri<sup>1</sup>, M.I. Borrotzu<sup>1</sup>, C. Porcu<sup>1</sup>, M.F. Pruneddu<sup>1</sup>, G. Sale<sup>1</sup>, C. Satta<sup>1</sup>, F. Arcadu<sup>1</sup>

<sup>1</sup>UOC Medicina Interna e Gastroenterologia, P.O. San Francesco, Nuoro, Italy

Olmesartan is a angiotensin II receptor blocker (ARB) used in the hypertension treatment alone or in combination with other anti-hypertensive drugs. Among the adverse events of Olmesartan is described persistent diarrhea, weight loss and intestinal villi atrophy with negative serology for Coeliac disease. We report the case of a 68 years old woman hospitalized for a month persistent bowel diarrhea (10-15/d evacuations without mucus and hematochezia), vomiting, hyporexia, weight loss of about 6 kg. At the admission laboratory tests pointed out renal failure and hypokalemia, no anemia or other signs of malabsorption. Investigations performed, excluded infectious and inflammatory bowel diseases or systemic pathologies but revealed a condition of duodenopathy with histology like Celiac disease (negatives Ac TTG). We assumed a probable iatrogenic origin of this clinical condition, linked to Olmesartan that the patient was taking for 2 years. A rapid improvement of symptoms after the drug withdrawal, confirmed our diagnosis. The endoscopic control after one month showed a regular duodenal mucosal appearance and a normal histology.

### Valutazione non invasiva del rapporto tra apporto e consumo di ossigeno a livello miocardico nello scompenso cardiaco

A. Grillo<sup>1</sup>, P. Salvi<sup>2</sup>, M. Rovina<sup>3</sup>, G. Simon<sup>3</sup>, C. Baldi<sup>3</sup>, E. Meneghin<sup>3</sup>, R. Carretta<sup>3</sup>, L. Salvi<sup>4</sup>, A. Pini<sup>5</sup>, G. Parati<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina e Chirurgia, Università degli Studi di Milano-Bicocca, Milano; <sup>2</sup>Dipartimento di Scienze Cardiovascolari, Neurologiche e Metaboliche, Ospedale S. Luca, IRCCS Istituto Auxologico Italiano, Milano; <sup>3</sup>Dipartimento di Scienze Mediche, Chirurgiche e della Salute, Università di Trieste; <sup>4</sup>Dipartimento di Medicina Interna e Terapia Medica, Università di Pavia; <sup>5</sup>SC Cardiologia, Ospedale L. Sacco, Milano, Italy

**Scopo dello studio:** La discrepanza tra apporto e consumo di os-

sigeno al miocardio è una causa frequentemente sottodiagnosticata di infarto al miocardio di tipo 2, in particolare in pazienti con scompenso cardiaco. Il SEVR (Subendocardial Viability Ratio) è un parametro utile per misurare il rapporto apporto/consumo di ossigeno al miocardio ed è derivabile dalla misurazione pressoria invasiva. Scopo dello studio è valutare il SEVR con metodo non-invasivo, attraverso la tonometria arteriosa e l'ecocardiografia, considerando anche il tempo di contrazione isovolumetrica (ICT) e la pressione diastolica del ventricolo sinistro (LVDP) in soggetti sani e con scompenso cardiaco.

**Metodi:** Sono stati arruolati 102 soggetti: 60 controlli sani (CTR) e 42 pazienti con scompenso cardiaco sistolico (HF, fraz. eiezione  $42 \pm 8\%$ ). Ogni soggetto è stato sottoposto a tonometria arteriosa (PulsePen, SphygmoCor) ed ecocardiografia. Il SEVR è stato calcolato tenendo conto di LVDP, ricavata dall'ecocardiografia mediante formule validate, e di ICT, ricavato mediante ECG e simultanea ecocardiografia.

**Risultati:** I valori di SEVR con le correzioni apportate risultavano significativamente più bassi rispetto al SEVR convenzionale ( $-24\%$  nei controlli e  $-41\%$  negli scompensati). ICT tonometrico e ecocardiografico erano strettamente correlati (CTR:  $R=0,748$ , HF:  $R=0,917$ ).

**Conclusioni:** I nostri dati supportano l'utilizzo di SEVR calcolato considerando ICT e LVDP, per ottenere una valutazione accurata del rapporto tra apporto e consumo di ossigeno al miocardio con metodica non-invasiva, in soggetti normali e con scompenso cardiaco.

### Lo screening del diabete mellito tipo II in popolazioni ad alto rischio: efficacia e differenze tra i test diagnostici a disposizione

A. Gualerzi<sup>1</sup>, M. Gentile<sup>1</sup>, R. Bonometti<sup>1</sup>, A. Gibbin<sup>1</sup>, M. Tran Minh<sup>1</sup>, S. Favretto<sup>1</sup>, E. Momo<sup>1</sup>, A. Rossini<sup>1</sup>, M. Celasco<sup>1</sup>, G. Guaschino<sup>1</sup>, M. Bellan<sup>2</sup>, G. Carnevale Schianca<sup>1</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Medicina Interna I, A.O.U. Maggiore della Carità, Novara; <sup>2</sup>Medicina Interna, P.O. Sant'Andrea, Vercelli, Italy

Fino al 50% dei casi di diabete mellito tipo II (DMT2) possano essere misconosciuti, è pertanto necessario migliorare l'efficacia diagnostica con screening adeguati nei soggetti a rischio. La glicemia a digiuno (FPG), la curva da carico del glucosio (OGTT) basata su FPG e sulla glicemia a 2 ore dal carico (2hPG), oltre alla HbA1c sono i tre test più utilizzati per stimare la tolleranza glicidica. In questo studio abbiamo analizzato l'efficacia diagnostica di FPG e HbA1c rispetto ad OGTT. 1751 pazienti ambulatoriali (754 M) a rischio per lo sviluppo di DMT2 (età >50 anni, obesità, dislipidemia, ipertensione) sono stati sottoposti ad OGTT. Di questi, 259 soggetti sono risultati diabetici (14,8%, 135 M). Usando invece FPG  $\geq 126$  mg/dl come singolo test diagnostico, solo 139 sarebbero risultati diabetici (7,9%, 70 M) e quasi la metà sarebbe rimasta misconosciuta (6,9%). D'altra parte se HbA1c  $\geq 6,5\%$  fosse stato usato come singolo criterio, solo 88 soggetti sarebbero risultati diabetici (5%, 39 M) ed è interessante notare che tra questi, 20 non sarebbero stati identificati dall'OGTT. L'OGTT ha pertanto differenziato tre sottotipi di pazienti diabetici: 69 con glicemia a digiuno  $\geq 126$  mg/dl ma 2hPG <200 mg/dl, 120 con FPG <126 mg/dl ma con 2hPG  $\geq 200$  mg/dl e 70 con sia FPG che 2hPG diagnostici per DM. Ciò potrebbe suggerire possibili differenze nello sviluppo della patologia e, di conseguenza, possibili strategie terapeutiche personalizzate. Inoltre, l'efficacia diagnostica è massima se i tre test vengono utilizzati in modo complementare, garantendo così uno screening ottimale.

### Unusual case of pulmonary embolism: a clinical and imaging challenge

F. Guidotti<sup>1</sup>, M. Zanon<sup>1</sup>, F. Serafini<sup>1</sup>, M. Dalla Vestra<sup>1</sup>, F. Presotto<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, Ospedale dell'Angelo, Mestre-Venezia, Italy

**Background:** Non-thrombotic pulmonary embolism (PE) is defined as embolization to the pulmonary circulation caused by a wide range of substances. The aim of this case report is to describe a rare cause of non-thrombotic PE.

**Case report:** A 77 years old woman was admitted to the

Department of Internal Medicine for chest pain, palpitations and shortness of breath. Medical history was relevant for a previous (years before) cardio-embolic stroke during atrial fibrillation complicated by subdural hemorrhage in the course of anticoagulation therapy. It was then attempted a percutaneous left atrial appendage obliteration, which was unsuccessful. Physical examination and biochemical profile were normal. Gas analysis showed normal  $pO_2$  and slight reduction of  $pCO_2$ . Chest X-ray showed moderate right pleural effusion. In the following hours an echocardiogram showed a dilated right ventricle with mild tricuspid regurgitation, and mild increase in pulmonary pressures. An angio-TC of the lungs showed an hyperdense image in the right pulmonary artery and additional high-density images in the segmental branches of both pulmonary arteries. The image in pulmonary artery was consistent with sheath fragments of catheters. Percutaneous removal of foreign body was attempted, but without success. Because the clinical conditions of the patient progressively improved, we decided to avoid further attempts of removal.

**Conclusions:** The final diagnosis was pulmonary embolism due to dislocation and shedding of catheter sheaths used during a percutaneous attempt of left atrial appendage closure.

### Immune thrombocytopenic purpura: when the underlying cause is bacterial

A. Ilardi<sup>1</sup>, G. Di Monda<sup>1</sup>, R. Muscherà<sup>1</sup>, F. Capasso<sup>1</sup>, M. D'Avino<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>UOC Medicina Interna 3, A.O.R.N. "Antonio Cardarelli", Napoli, Italy

**Case report:** A 58-year-old woman is hospitalized for the appearance from about 2 weeks of petechiae in the lower limbs and gingival bleeding. Laboratory tests, performed before hospitalization, detect the presence of an isolated thrombocytopenia (PLT =  $15.000/mm^3$ ). The patient is under treatment with an ACE-I and refers epigastric discomfort. During hospitalization, the tests confirm thrombocytopenia: the white blood cell (WBC) count and hemoglobin level are normal such as iron status. The diagnostic hypothesis is Immune Thrombocytopenic Purpura (ITP), but simultaneously investigations are required to rule out other causes of thrombocytopenia. Methyl-prednisolone is prescribed without significant improvement in platelet count over the next 7 days: in the fourth day (PLT =  $5000/mm^3$ ) the patient undergo prophylactic platelet transfusion. After haematologic consulting, treatment is started with intravenous immunoglobulin. Despite the progressive increase of platelets, we decided to further investigate with the stool antigen test (SAT) for *H. pylori*. For positivity of test, the patient is discharged with 10-day sequential therapy. In the next six months, the platelet count remained normal and the SAT, performed 6 weeks post therapy, was negative.

**Conclusions:** Several microbial agents, including *Helicobacter* (HP), have been shown to be associated with ITP. The proposed mechanism include molecular mimicry between one of the bacillus antigens and platelet glycoproteins causing production of cross-reacting autoantibodies.

### Diagnostic therapeutic pathway for SIAD

A. Ilardi<sup>1</sup>, S. Scagliarini<sup>2</sup>, F. Scavuzzo<sup>3</sup>, B. Chirazzi<sup>2</sup>, F. Paladino<sup>4</sup>, G. Carteni<sup>2</sup>

<sup>1</sup>Dipartimento Medico Polispecialistico, UOSC Medicina Interna 3, A.O.R.N. "Antonio Cardarelli", Napoli; <sup>2</sup>Dipartimento Onco-Ematologico e Pneumo-Ematologico, UOSC Oncologia, A.O.R.N. "Antonio Cardarelli", Napoli; <sup>3</sup>Dipartimento Medico Polispecialistico, UOSC Servizio di Endocrinologia, A.O.R.N. "Antonio Cardarelli", Napoli; <sup>4</sup>Dipartimento di Emergenza ed Accettazione, UOSC Pronto Soccorso OBI, A.O.R.N. "Antonio Cardarelli", Napoli, Italy

**Background:** Hyponatraemia is the most common electrolyte disorder in hospitalized patients: in 50% of cases it is due to inappropriate antidiuresis by ectopic production of arginine vasopressin (AVP) or by effects of medications (SIAD). The main objective of the study is to design an optimized Patient Diagnostic Therapeutic Pathway (DTP) for the hyponatremic patient with the aim of favoring the dialogue between the professionals involved,

the progressive *homogenization* of management, the early selection of patients with SIAD.

**Methods:** In 2015, Dr. Giacomo Carteni, Chief of Oncology Unit at Cardarelli Hospital in Naples, identified the members of the team of work. After a survey and the analysis of reference literature, they were attending the construction of *ideal pathway* and then of *reference pathway* (the best sequence of activities that can be performed taking into account available resources).

**Results:** According to the plan-do-check-act model, the pilot phase of the project, designed to correct the actions that are inconsistent with the achievement of objectives, is ongoing. The next step will be the implementation of the pathway within the Hospital with planning of monitoring and review moments.

**Conclusions:** To treat a health problem often requires the contribution of many actors and this can promote variability, with a impact on costs, and increase the possibility of error. Our project identifies a DTP, able to engage all the clinicians for a more effective management of SIAD.

### The St. George's respiratory questionnaire: limits and potential

C.R. Ilardi<sup>1</sup>, A. Russo<sup>2</sup>, A. Grieco<sup>3</sup>, S. Avallone<sup>4</sup>, A. Ilardi<sup>5</sup>, U. Costantini<sup>6</sup>

<sup>1</sup>Facoltà di Scienze della Formazione, Corso di Laurea in Psicologia: Neuroscienze Cognitive, Università Suor Orsola Benincasa, Napoli;

<sup>2</sup>Reparto di Lungodegenza, Casa di Cura Alma Mater S.p.A. "Villa Camaldoli", Napoli; <sup>3</sup>Dipartimento di Medicina Interna e Riabilitazione Cardiologica, Università degli Studi di Napoli "Federico II", Napoli; <sup>4</sup>DAI Emergenza e Terapie Intensive, Pronto Soccorso BT, Azienda Ospedaliera Universitaria Integrata, Verona; <sup>5</sup>Dipartimento Medico Polispecialistico, UOC Medicina Interna 3, A.O.R.N. "Antonio Cardarelli", Napoli; <sup>6</sup>Facoltà di Scienze della Formazione, Corso di Laurea in Comunicazione Pubblica e dell'Impresa, Università Suor Orsola Benincasa, Napoli, Italy

**Background:** Health-related quality of life is an important outcome in respiratory patients. About this issue, the St. George's Respiratory Questionnaire (SGRQ) is a clinical assessment tool used to measure the quality of life in COPD patients.

**Materials:** The questionnaire is composed by 50 items which are divided in 3 sections: symptoms, activity and impact. The resulting final score is included in a circumscribed range: 0 corresponds to no impairment, whereas 100 indicates a global impairment of life style.

**Discussion:** We think that the SGRQ is inadequate for a daily use, because it is too *long* and scoring – based on the weights of positive items – is *not prompt*. Moreover, the True/False format aids to the *acquiescence tendency* and *control questions* are not included. In addition, according to Ferrer et al. (2002), the mean total scores are significantly major in: 60-69 y.o. patients (11.61), smokers of more than 20 P/Y (10.76), patients with FEV1% <80 (14.30) and patients with education <5 years (10.20). In the last case, the resulting score would be due to a *comprehension deficit of materials*. About the *psychological dimensions*, items are not structured to well detect anxiety, depression or sleeping schedule disorders. Finally, the *comorbidities* are not considered as other factors influencing the quality of life.

**Conclusions:** We suggest to use the SGRQ-C (40 items), transform the T/F format in a multiple choice format, avoid the low-education problem using hetero-administrations and plan a support tool based on DMS-V criteria to study anxiety and depression.

### Use di tocilizumab in prima linea nella malattia di Still dell'adulto

G. Italiano<sup>1</sup>, M. Raimondo<sup>1</sup>, T. D'Errico<sup>2</sup>, A. Maffettone<sup>3</sup>, A. Gargiulo<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna AOC, Caserta; <sup>2</sup>U.O. Medicina Interna, ASL Na 1, Napoli; <sup>3</sup>U.O. Medicina Interna, Ospedale dei Colli, Napoli, Italy

Lo Still dell'adulto è una malattia infiammatoria ad eziologia sconosciuta caratterizzata da febbre, rash cutaneo, artralgia e artrite, mal di gola, linfadenopatia, pericardite e versamento pleurico è presente leucocitosi neutrofila, aumento della PCR, VES, iperferritinemia. La terapia prevede l'uso di corticosteroidi, FANS e DMARD's, ma la frequenza delle recidive e gli effetti negativi steroide indotti sono fattori limitanti. Presenza di alti livelli di citochine

pro infiammatorie: IL1, IL6, TNF- $\alpha$  o IFN supportano l'uso di bio-terapie. Segnaliamo il caso di una donna di anni 58 che a febbraio 2016 presenta febbre, poliartrite, mialgie, astenia, pericardite non responsiva a terapia antibiotica. Terapia con boli di steroidi e indometacina non risoluzione della sintomatologia. Per la persistenza di mialgie, artrite, versamento pericardico, ambasc respiratoria giunge alla nostra osservazione in ottobre 2016: Ferritina 3491. VES 120. PCR: 96,5 Fibrinogeno: 953. Inizia terapia con Tocilizumab. A 4 mesi scomparsa del versamento pericardico, sospensione delle steroide; persistenza di lievi mialgie. Il razionale dell'uso di tocilizumab, anticorpo anti recettore dell'IL-6 è basato sul ruolo centrale di tale citochina nel processo infiammatorio. La peculiarità di questo caso è l'uso di tocilizumab in prima linea in assenza di DMARD a dose piena per via endovenosa a otto mesi dall'esordio della malattia a supporto che la malattia di Still dell'adulto deve essere aggredita in fase "early" con anti IL-6 e non riservare il suo uso ai casi refrattari.

### Denosumab migliora la percezione del dolore corporeale nella osteoporosi indotta da inibitori dell'aromatasi

G. Italiano<sup>1</sup>, M. Raimondo<sup>1</sup>, T. D'Errico<sup>2</sup>, A. Maffettone<sup>3</sup>, A. Gargiulo<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna AOC, Caserta; <sup>2</sup>U.O. Medicina Interna, ASL Na 1, Napoli; <sup>3</sup>U.O. Medicina Interna, Ospedale dei Colli, Napoli, Italy

**Premesse e Scopo dello studio:** Valutare l'azione del denosumab sul dolore corporeale nelle pazienti osteoporotiche, affette da tumore della mammella, sottoposte a terapia con inibitori dell'aromatasi

**Materiali e Metodi:** Valutate 82 donne affette da neoplasia della mammella e osteoporosi (DEXA colonna L2-L4 T-Score medio -2,8), arruolate 38, hanno completato l'osservazione a tre anni (T2) 30 pazienti. Tutte hanno ricevuto denosumab sc 60 mg /sei mesi. Tutte avevano normali livelli di vitamina D.

**Risultati:** Al T0 il 64% aveva dolore continuo-momentaneo; il 4% dolore momentaneo; 11% dolore intermittente; 21% dolore continuo. A T2 il 20% aveva dolore continuo-momentaneo, 1% momentaneo; 8% intermittente; 71% continuo. A T0 il 98% aveva dolore in tre o più punti del corpo a T2 solo il 12%. Le sedi più interessate erano le estremità (100% mani e piedi) a seguire la colonna (98%) e le anche (93%). L'intensità del dolore con la scala VAS era di 5-6 a T0 di 1-2 a T2. Il T-Score medio a T2 è stato -2,4

**Conclusioni:** Il dolore corporeale nelle donne affette da neoplasia della mammella potrebbe essere secondario alla perdita di massa ossea, nella nostra popolazione è percepito soprattutto alle estremità. L'intensità non è elevata, ma il dolore è continuo-momentaneo. Migliora lentamente nel tempo unitamente al miglioramento della massa ossea. Denosumab è in grado di contrastare la perdita di massa ossea e nel tempo favorire un recupero del T-score, migliorando la percezione dolorosa corporeale dell'osteoporosi indotta dagli inibitori dell'aromatasi.

### Thyroid metastasis from clear renal carcinoma and concomitant sorafenib-related hypothyroidism: a case report

S. Khalil<sup>1</sup>, F. Ceccarelli<sup>1</sup>

<sup>1</sup>UOSD Medicina Generale, Civita Castellana, AUSL Viterbo, Italy

**Background:** Thyroid diseases are unexpected events those can occurred in patients with renal cell cancer. These events may include the alteration of thyroid functions induced by anticancer agents and the metastatic invasion of the thyroid gland.

**Case presentation:** We described a case of thyroid metastasis from renal cell cancer in a 67-years-old patient with concomitant hypothyroidism emerged during sorafenib therapy. He presented a neck mass, and hypothyroidism related symptoms as fatigue, anorexia and fluid retention. Diagnosis was performed by ultrasonography and fine needle aspiration. The clinical history of renal cell cancer was been essential to allow consideration of possible metastatic thyroid lesion. Hypothyroidism was corrected by administration of replacement therapy (levothyroxine), obtaining an alleviation of hypothyroidism related symptoms and an improvement of quality of life.

**Conclusions:** Increasing attention to concomitant thyroid disease

is mandatory in patients who have a clinical history of RCC. Clinicians have to consider that the anticancer agents commonly employed in RCC treatment, may induce alteration of thyroid functions (sorafenib-induced hypothyroidism was estimated about 18%). Thyroid anomalies may reduce quality of life, considered the most important target in the management of systemic cancer diseases. Besides, thyroid gland is an unusual but possible secondary localization of RCC. Thus, metastasis to the thyroid gland must be considered in the differential diagnosis of thyroid nodule, in every patient with a medical history of renal malignancy.

### Ventricular-arterial coupling and comorbidity in Internal Medicine Department. Echocardiographic study

S. La Carrubba<sup>1</sup>, G. Triolo<sup>1</sup>, C. Cicatello<sup>1</sup>, S. Sferrazza<sup>1</sup>, C. Argano<sup>1</sup>, L. Ferrara<sup>1</sup>, B. Di Giovanni<sup>1</sup>, P. Gulotta<sup>1</sup>, D. Volpes<sup>2</sup>, R. Conigliaro<sup>2</sup>, G. Angelo<sup>1</sup>, F. Ardizzone<sup>1</sup>, A. Puleo<sup>2</sup>, G. Nicolosi<sup>1</sup>

<sup>1</sup>Medicina Interna, AOR Villa Sofia Cervello, Palermo; <sup>2</sup>Medicina Interna Semiintensiva, AOR Villa Sofia Cervello, Palermo, Italy

The interaction between Cardiac Function and Arterial System, index of global cardiovascular efficiency, is defined as Ventriculo-Arterial Coupling (VAC). This relation can be mathematically expressed as the ratio between Arterial Elastance ( $E_A$ ) and Left Ventricular (LV) End-systolic Elastance ( $E_{ES}$ ). Actually, due to the aging trend, cardiologists deal with increasing complex clinical cases. The Charlson comorbidity index (CCI) takes into account the presence of 19 diseases, resulting a strong prognostic indicator. We sought to determinate in a large sample of internistic patients with several comorbidities the correlation between VAC and CCI. We included a sample of acute patients admitted in internal medicine unit. VAC has been measured as  $E_A/E_{ES}$ , where  $E_A=ESP/SV$  (the ratio of End Systolic pressure-Systolic Arterial Pressure \* 0.9- to 2D-Echo Stroke Volume, SV) and  $E_{ES}=ESP/ESV$ . VAC was classified as normal for values between 0.3 and 1.3, as previously described. In our population of 685 patients (300 Males 43.8%; 385 Females 56.2%; Age 71.3+/-13 years) CCI range was between 0-8 (mean 1.36+/-1.5). CCI was significantly associated to a pathological VAC, also adjusted for Age and Gender (1.16, CI 95% 1.040-1.19,  $p=0.007$ ). Subdividing our population according to CCI in low comorbidities, and moderate-to-severe comorbidities patients in Group 2 had a higher prevalence of pathological VAC (53.4% vs 38.4%, RR 1.8, CI 95% 1.3-2.6,  $p<0.001$ ). Our data confirm cardiovascular involvement in general medical conditions, suggested by a link with VAC.

### Baseline features and changes in bone mineral density T-score of Oristano women with postmenopausal osteoporosis treated with denosumab

L. La Civita<sup>1</sup>, P. Fadda<sup>1</sup>, R. Mastinu<sup>1</sup>, E. Chessa<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, San Martino Hospital, Oristano, Italy

**Introduction and Aim of the study:** Denosumab (Den), an anti-RANKL monoclonal antibody, is an anti-osteoporosis agent for unresponsive or intolerant patients (pts) to first-line therapy, such as bisphosphonates (BP). We report the clinical features and BMD T-score changes of PMO women treated with Den for a high fracture risk.

**Patients and Methods:** From database AIFA updated every 2 years, we recovered the data of 29 PMO women (aged from 60 to 91 yrs, PMO dur. from 1 to 12 yrs since the 1st MOC) recruited for treatment with Den since 2013. In a mean time of 5,6±2,6 yrs, pts had failed (52% with new fractures) or were intolerant (48%) to BP. Menopause age was 50.9±3.5 yrs and PMO diagnosis happened 16.7±8.3 yrs later. Each patient received a treatment plan for a Den 60 mg subcutaneously vial once every 6 months.

**Results:** For undue reasons to Den, 8 pts dropped out the treatment. Only 2 pts had history of breast cancer treated with adjuvant therapy. Due to autoimmune diseases 5 pts had previously received steroids for more than 6 months. In 18 pts was present at least a spine fracture, in 8 a hip fracture. A family history of fractures was referred by 16 pts. Spine T-score values improved significantly with Den ( $p<0.0015$  vs baseline), while hip T-score

changes were not statistically significant. No patient experienced adverse reactions and new fractures with Den.

**Conclusions:** Our data support Den effectiveness; in particular, improve BMD T-score and reduce risk of new fractures allow Den to feed a new enthusiasm in receiving anti-osteoporosis therapy in our unmotivated pts.

### Iloprost infusion by using fixed flow disposable elastomeric pump in home care in systemic sclerosis patients

L. La Civita<sup>1</sup>, P. Fadda<sup>1</sup>, G. Piras<sup>1</sup>, F. Mugheddu<sup>1</sup>, D. Fiandri<sup>1</sup>, E. Chessa<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, San Martino Hospital, Oristano, Italy

**Introduction and Aim of the study:** Iloprost (Ilo), a vasodilator prostacyclin analogue, exhibits several pleiotropic effects such as immunological and inflammatory modulation which is maintained over time. Our NHS allows you to infuse Ilo only in hospital. Here, we present our experience of Ilo infusion with fixed flow disposable pump in home care.

**Patients and Methods:** Since 2014, we treated with Ilo 8 SSc pts (1 males; aged from 35 to 72 yrs; SSc duration from 3 to 21 yrs; anti-Scl70-Ab in 6 pts) with recurrent painful digital ulcers. After informed consent, each patient received Ilo 0.2 mg in 60 mL of saline using an 0.5 mL/h rate elastomeric pump (Tuoren). We treated the pts from November to June. Between cycles, pts were taking calcium channel blockers. At the beginning of each cycle, each patient's opinion regarding treatment tolerability and efficacy on vasospasm and digital ulcers was recorded. Also, they were asked to express their satisfaction level about the infusion procedure using a scale to three items of satisfaction: 0-no, 1-little, 2-much.

**Results:** Treatment was well tolerated and in no case was stopped before. Difficulty in pump running was reported by 5 pts. In 2 pts Ilo did not prevent new digital ulcer recurrence. During the treatment period no patient recorded evolution of underlying disease. All pts expressed high satisfaction with the elastomeric infusion pump in home care.

**Conclusions:** In home care, Ilo infusion with elastomeric pump is safe, effective, well accepted by the patient, and less expensive than with peristaltic pump in hospital.

### Apparent mineralocorticoid excess: a clinical case

L. La Mura<sup>1</sup>, G. La Mura<sup>2</sup>, M.T. De Donato<sup>3</sup>, M. Renis<sup>4</sup>

<sup>1</sup>Università di Napoli "Federico II"; <sup>2</sup>Cardiologo, P.O. Scafati, A.S.L. Salerno; <sup>3</sup>U.O.C. Medicina, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>4</sup>U.O.C. Medicina, P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno, Italy

**Introduction:** Sometimes we find clinical and electrolyte abnormalities similar to hyperaldosteronism, without mineralocorticoid excess.

**Clinical case:** F, 62, is hospitalized in department of Internal Medicine for muscle aches and fatigue. History: smoking, dyslipidemia and well controlled hypertension. Current therapy: ramipril/HCT; rosuvastatin 10, verapamil, fluconazole 50 mg BID for 10 days (two months before). ECG: ST segment depression like ventricular overload. **Laboratory tests:** K: 1.7; Na: 146; CPK: 11971; PH: 7,56; HCO3- 55.5; urinary potassium 40.3 mEq/24 hours; aldosterone, renin, cortisol, ACTH: limits. **Abdominal ultrasound and abdominal TC, and renal arteries Doppler:** limits. The patient undergoes KCL i.v., potassium kanreonate, acetazolamide. Gradual normalization of clinical and laboratory parameters. Subsequent re-evaluation after discharge (ongoing therapy: ramipidine, rosuvastatin 5, ezetimibe): normal Electrolytes and ECG.

**Discussion:** The severe hypokalemia with alkalosis and rhabdomyolysis, puts etiopathogenetic open questions (in our opinion, it can not just be attributed to ramipril/HCT and to rosuvastatin, assumed for years without noticeable electrolytic and CPK alterations). Rhabdomyolysis may be secondary to severe electrolyte imbalance.

**Conclusions:** We supposed a drug interaction between verapamil and fluconazole (as rosuvastatin has only little action on hepatic cytochromes) with reduced catabolism of steroid hormones or a transient action on kidney function (similar to some rare genetic diseases characterized by enhanced tubular Na/K exchange).

### A rare case of myasthenia gravis and myocarditis in acute onset: an unusual association

L. La Mura<sup>1</sup>, M.T. De Donato<sup>2</sup>, M. Renis<sup>3</sup>, G. La Mura<sup>4</sup>

<sup>1</sup>Università di Napoli "Federico II"; <sup>2</sup>U.O.C. Medicina, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>3</sup>U.O.C. Medicina, P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>4</sup>Cardiologo, P.O. Scafati, A.S.L. Salerno, Italy

**Introduction:** Myasthenia gravis is an autoimmune disorder characterized by skeletal muscle involvement.

**Clinical case:** F, 78, previous partial thyroidectomy, was hospitalized in Neurosurgery for ptosis, deficits of the sixth cranial nerve, double vision, dysphagia for solids and tetraparesis. During hospitalization: sudden onset of dyspnea associated with ECG-graphical changes (T wave inversion in anteroseptal) and elevation of cardiac necrosis enzymes. Physical examination: chest presence of rales at the bases; BP=130/90 mmHg, HR 96. Echocardiogram: Left ventricle and left atrium dilated, EF=22%. Akinesia of the apex. Mild tricuspid failure (PAPs 30 mmHg). So the patient was transferred to the cardiology department. Coronary angiography: epicardial arteries without angiographic lesions. We investigated autoimmune or paraneoplastic causes. Laboratory tests: ESR 86 mm; positivity of antibodies to acetylcholine receptor. Diagnosis: "Myasthenia gravis". Therapy: Immunoglobulin i.v., pyridostigmine bromide cp 60 mg, prednisone 50 mg/day. 10 days later: cardiac and neurological involvement had almost solved.

**Discussion:** It is conceivable acute myocardial involvement during active myasthenia gravis phase, regressed completely and in a short time, as a result of immunosuppressive therapy.

**Conclusions:** This case is particularly significant because, although in literature is described that cardiac involvement in myasthenia gravis may take several forms (from asymptomatic ECG changes to ventricular tachycardia, myocarditis, heart failure and sudden death), only few cases are reported.

### Structured patients round and much more

M. La Regina<sup>1</sup>, E. Romano<sup>2</sup>, E. Pacetti<sup>3</sup>, A. Spadaro<sup>3</sup>, G. Costantino<sup>3</sup>, R. De Simone<sup>3</sup>, D. Costabile<sup>4</sup>, O. Fini<sup>3</sup>, E. Pasero<sup>5</sup>, F. Orlandini<sup>6</sup>

<sup>1</sup>SC Medicina Interna 1, SS Risk Management, ASL5 Liguria, La Spezia; <sup>2</sup>SS Risk Management, ASL5 Liguria, La Spezia; <sup>3</sup>SC Medicina Interna 1, ASL5 Liguria, La Spezia; <sup>4</sup>ELCO srl, Cairo Montenotte (SV); <sup>5</sup>SC Governo Clinico, Progr Sanitaria, Rischio Clinico e CDG, ASL5 La Spezia; <sup>6</sup>SC Medicina Interna 1, ASL5 Liguria, La Spezia, Direzione Sanitaria ASL 4 Liguria, Chiavari (GE), Italy

**Background and Aims:** A correct and complete communication among health care providers is essential. Loss of information or communication delay can cause adverse events. Recently, because of personnel shortage, medical-nurse ward rounds are "in danger of extinction". On the other hand, caring for modern poly-pathological complex patient needs to enhance communication within staff. The aim of this work is to develop a new tool to address this issue.

**Methods:** Starting from the document on structured ward rounds published by Royal College of Nursing and Physicians in 20121, we developed an electronic form that resumes last 24h health assistance for every patient. We prepared a draft and experimented it for one month, then we modified it according to health operators suggestions. Before and after implementation survey is programmed.

**Results:** Definitive form includes 25 items divided in 2 pages, named "Structured nurse assistance" and "safety checklist". It covers any aspect of hospital assistance from health needs assessment (*i.e.* nutrition, respiration,...) to discharge arrangement, from VTE prophylaxis to pressure ulcers prevention and venous catheter surveillance. It is fulfilled by nurses and updated three times a day.

**Conclusions:** Such structured form is a promising tool with a lot of advantages. It allow to standardize and make efficient ward round and handovers, accurately document health assistance, ensure continuity among shifts, monitor patients' diagnostic-therapeutic and assistential plan, programme a "good discharge" and ensure safety standards.

### Liver abscess in a cirrhotic patient due to *S. anginosus* and *C. krusei* complicated with systemic infection and cardiac involvement

D. La Rosa<sup>1</sup>, F. Napoli<sup>1</sup>, M.C. Giofrè<sup>1</sup>, A. Caruso<sup>1</sup>, N. Laganà<sup>1</sup>, S. Tomeo<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

A 33-year old male was admitted for high fever, myalgia and ashenia. He underwent sleeve gastrectomy for severe obesity. Splenic and superior mesenteric artery's thrombosis occurred one month after surgery and treated with acenocumarol. One year later a follow up abdominal CT showed hepatomegaly and cavernous hemangioma instead of portal vein. At the hospitalization inflammatory markers, myocardial and cytotoxicity markers were increased. Autoimmunity and viral markers of hepatitis were negative. Blood culture was positive to *S. anginosus*. Echocardiography showed interventricular septal hypokinesia with reduced ejection fraction (50%), cardiac-MRI confirmed peri-myocarditis. We made diagnosis of *S. Anginosus* induced peri-myocarditis. Abdominal CT showed a voluminous liver abscess. Microbiological examination was positive to *C. Krusei* and *S. Anginosus*. Esophagogastroduodenoscopy showed F3 varices, treated with ligation. We made diagnosis of liver abscess in a cirrhotic patient due to *S. anginosus* and *C. krusei* complicated with systemic infection and cardiac involvement. Ampicillin/sulbactam and fluconazole were started. After 10 days of therapy there was fever resolution and laboratory normalization. Echocardiography showed a higher EF (65%) with normal kinetics. Splenic-mesenteric's thrombosis is a post-operative complication in abdominal surgery like sleeve-gastrectomy. Portal cavernous emangioma predisposes to infections of intestinal bacteria like *S. Anginosus*, whose infection is recurrent in patients who underwent sleeve-gastrectomy and can have systemic evolution.

### Seronegative antiphospholipid syndrome: does it exist?

G. Labbadia<sup>1</sup>, A. Concistrè<sup>1</sup>, C. Savoriti<sup>1</sup>, G. Cavina<sup>1</sup>, S. Minisola<sup>1</sup>

<sup>1</sup>Department of Internal Medicine and Medical Specialties, University "La Sapienza", Rome, Italy

A 64-year-old woman was admitted for pulmonary embolism, thrombocytopenia and psoas hematoma. The patient reported no medical problems until one month before when, following a flu syndrome, a right lower limb deep thrombophlebitis associated with thrombocytopenia developed. Hematologic and autoimmune causes of thrombocytopenia were excluded; screening for thrombophilia, including antiphospholipid antibodies (ACA) and LAC, was negative. The clinical course was complicated by pulmonary embolism, left adrenal hematoma and anemia secondary to spontaneous psoas hematoma. The patient was transferred to our hospital for embolization of the right lumbar artery. During hospitalization she developed a dry gangrene of the II, III and IV right toe in the absence of arterial thrombosis. Furthermore, MRI showed semi-oval center ischemia; akinesia of the basal septum was evidenced with echocardiogram. ACA and LAC were again negative and paradoxical emboli was excluded by transesophageal echocardiogram. Because of catastrophic antiphospholipid syndrome (APS) suspicion, steroid therapy and fondaparinux was started with clinical improvement after a few days. Additional immunological tests with thin layer chromatography technique showed positive anticardiolipin and anti-lysobisphosphatidic acid antibodies. In conclusion, it is appropriate to suspect and treat APS even in the absence of classical laboratory criteria. The search for new ACA together with the use of new laboratory techniques should be encouraged in order to facilitate the diagnosis when traditional tests are negative.

### Autoimmune rhabdomyolysis and hemolytic anemia in chlamydia pneumoniae infection

N. Laganà<sup>1</sup>, M.C. Giofrè<sup>1</sup>, D. La Rosa<sup>1</sup>, A. Caruso<sup>1</sup>, S. Tomeo<sup>1</sup>, F. Napoli<sup>1</sup>, M. Ardesia<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

**Introduction:** A 45 years-old male patient was affected by

headache, low fever, dry cough, muscular pain since one month. Inflammatory and cytotoxic markers were increased. A relative increase of lymphocytes in the leukocyte formula, an absolute increase of Ig, a mild normocytic normochromic anemia and a mild decrease of C3 levels were detected. After 1 day an acute renal colic occurred. The patient confirmed to have C. Pneumoniae sub - acute infection by serum detection of specific IgA. The systemic implication of most organs and the increase of Ig associated to low C3 levels suggested the autoimmune nature of disease. The diagnosis was confirmed because the direct Coombs' test was positive and the cold agglutinin titer was above the normal negative level.

**Discussion:** C. Pneumoniae is an etiological agent of community acquired pneumoniae. Although the respiratory tract is the main site of infection, any organs or systems can be attacked because of an autoimmune mechanism based on a cross reactivity between C. Pneumoniae and human tissue antigens. The patient presented muscle, red blood cell, liver and pancreas involvement with hemolytic anemia and rhabdomyolysis. He was treated with clarithromycin for a week till the disappearance of fever and symptoms. Cytotoxic markers gradually decreased. Glucocorticoid treatment was not necessary because the autoimmune process is self - limited.

**Conclusions:** The case report suggests that C. Pneumoniae infection can be associated to a self - limited autoimmune disease.

### Rivaroxaban treatment in patient with incidentally detected splanchnic vein thrombosis

I. Lambertini<sup>1</sup>, M. Iotti<sup>1</sup>, M. Veropalumbo<sup>1</sup>, S. Corradini<sup>1</sup>, E. Spaggiari<sup>1</sup>, A. Ghirarduzzi<sup>2</sup>

<sup>1</sup>UOC Medicina Cardiovascolare, Sez. Angiologia, SMN Reggio Emilia;

<sup>2</sup>UOC Medicina Cardiovascolare, SMN Reggio Emilia, Italy

Venous thromboembolism in unusual sites is a challenge for clinicians managing therapeutic decisions because of the lack of adequate evidence from clinical trials. A 70-year-old Caucasian man with a history of prostate (2012) and bowel (2014) resections for cancers was seen in our clinic because of left portal branch venous thrombosis found during a follow up Computerized Tomography (CT) in 2016. Chemotherapeutic treatment ended in 2014. Follow up chest and abdomen CT were negative for relapse of disease or metastasis. A new follow up colonoscopy was not performed and the previous one (12 months before) was negative. Thrombophilia screening was negative. After LMWH as initial strategy, we opted for a long-term treatment with Rivaroxaban. No recurrent VTE or bleedings were observed during treatment. Abdomen ultrasound and CT performed 6 months after showed complete regression of portal vein thrombosis. Little information is available about incidentally detected splanchnic vein thrombosis and therapeutic management. The IVERS Registry shows that prognosis is similar to the clinically suspected one and similar treatment strategies should be applied. Current guidelines of treatment recommend no anticoagulation over anticoagulation (Grade 2C). In clinical practice, concerning evidence reached about usual location VTE treatment, there is a tendency to anticoagulate. The direct anticoagulant (DOACs) are not currently employed in the treatment of the deep vein thrombosis in unusual sites. Future studies need to assess safety and efficacy of the DOACs in these settings.

### Non invasive ventilation for acute respiratory failure due to aspiration pneumonia: a case report

F. Lari<sup>1</sup>, R. Di Luzio<sup>1</sup>, C. Caputo<sup>1</sup>, R. Bortolotti<sup>1</sup>, M. Vacchetti<sup>1</sup>, F. Giostra<sup>2</sup>, N. Di Battista<sup>3</sup>, G. Bragagni<sup>1</sup>

<sup>1</sup>UO Medicina della Pianura, Dipartimento Medico, AUSL Bologna;

<sup>2</sup>Medicina e Chirurgia d'Accettazione e d'Urgenza, ASUR Marche, Area Vasta 4, Fermo; <sup>3</sup>Ospedale Privato Nigrisoli, Bologna, Italy

**Background:** NIV reduces intubation (ETI) and mortality in ARF due to Cardiogenic Pulmonary Edema, COPD also in medical wards. In hypoxemic ARF due to other condition, NIV may improve blood gases - clinical features but don't affect survival and ETI. Aspiration pneumonia is due to swallowing disorders or vomiting

and often causes ARF with poor prognosis: invasive ventilation should be considered, no important data on NIV are available

**Case:** 72-year-old man with spinocerebellar ataxia hospitalized in medical ward for worsening of ambulation. Occasional coughing during meals. Water swallow test normal. The third day during meal (pureed food), cough respiratory distress hypoxemic ARF. Not eligible to ETI (neurological disease difficult weaning). Started NIV trial+medical treatment. He improved clinical parameters blood gases (Table 1).

**Table 1.**

Time h	Kelly	RespRate	PaO2	PaCO2	pH	FiO2	P/F	InspPress	ExpPress
			mmHg				cmH2O		
0	4	38	49	36	7.37	60%	85	Ventimask	
2	2	28	85	32	7.41	80	106	18	7
8	1	20	153	33	7.41	80	191	18	8
12	1	16	100	28	7.45	50	200	18	8
24	1	12	80	28	7.49	30	269	18	8

**Discussion:** Aspiration pneumonia is frequently observed in medical pts (dysphagic old pts, neurological disease, cancer). They often aren't eligible to ETI in severe ARF because of comorbidities and general condition so NIV may be considered as palliative to treat symptoms - correct ARF. Ventilation strategy: consider high expiratory pressures in order to further alveolar recruitment (excluding COPD) but fluid assessment is needed to ensure adequate oxygen delivery to tissues during ventilation (increasing intrathoracic pressure may decrease stroke volume in preload dependent pts).

### Nuovi sistemi di diagnosi e monitoraggio emodinamico non invasivo nel paziente critico: possibili applicazioni in Medicina Interna

F. Lari<sup>1</sup>, F. Savelli<sup>2</sup>, F. Giostra<sup>3</sup>, N. Di Battista<sup>4</sup>

<sup>1</sup>UO Medicina della Pianura, Dipartimento Medico, AUSL Bologna;

<sup>2</sup>UO Pronto Soccorso e Medicina d'Urgenza, Ospedale di Faenza, AUSL Romagna; <sup>3</sup>UO Medicina e Chirurgia d'Accettazione e d'Urgenza, ASUR Marche, Area Vasta 4, Fermo; <sup>4</sup>Ospedale Privato Nigrisoli, Bologna, Italy

Il pz internistico oggi è un pz complesso, con comorbidità, spesso ospedalizzato per riacutizzazioni di patologie croniche che possono portare a condizioni gravi per shock e ipoperfusione tissutale. Sepsis, scompenso cardiaco, ipovolemia, anemizzazione sono le basi fisiopatologiche su cui si instaurano tali problematiche. I nuovi modelli organizzativi hanno portato allo sviluppo di aree critiche e terapie semi-intensive mediche per garantire una gestione adeguata dei pz critici. È opportuno perseguire la cultura della "non invasività" (diagnostica - terapeutica) in questi pz alla luce della loro fragilità. Il trasporto di ossigeno ai tessuti dipende da ossigenazione e ventilazione del pz, oggi perseguibili in modo non invasivo con le tecnologie disponibili, ma anche dalla perfusione. La valutazione dell'emodinamica può essere difficoltosa in ambito internistico ove non è pensabile utilizzare strumenti tradizionali di tipo invasivo. L'evoluzione tecnologica però mette oggi a disposizione strumenti di diagnosi/monitoraggio emodinamico non invasivo che, seppur sviluppati nelle terapie intensive, si stanno diffondendo al di fuori di queste e ben si addicono ai nuovi modelli organizzativi di ricovero in area medica. Tra questi i più diffusi sono: USCOM doppler continuo cieco, misura flusso attraverso valvola aortica o polmonare; NEXFIN analisi dell'area sottesa dalla curva della pressione arteriosa rilevata da cuffiette applicate alle dita delle mani; NICOM basato sulla bioreattanza, utilizza elettrodi posizionati sul tronco. Questi sistemi forniscono i valori di gittata cardiaca, gittata sistolica, resistenze vascolari periferiche, indice cardiaco.

### Pneumonia mimicking lung leukemic infiltration

A. Lasagni<sup>1</sup>, E. Zola<sup>1</sup>, G. Binotto<sup>2</sup>, F. Lessi<sup>2</sup>, E. Miola<sup>1</sup>, B. Paradiso<sup>3</sup>, F. Fragiaco<sup>1</sup>, V. Boschi<sup>1</sup>, S. Vio<sup>4</sup>, L. Fabris<sup>1</sup>, B. Girolami<sup>1</sup>, F. Calabrese<sup>3</sup>, G. Baggio<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, Padua University Hospital, Padua; <sup>2</sup>Haematology and Immunology Unit, Padua University Hospital, Padua; <sup>3</sup>Pathology Unit, Department of Cardiac, Thoracic and Vascular Sciences, Padua University Hospital, Padua; <sup>4</sup>Radiology Unit 1, Department of Radiology, Padua University Hospital, Padua, Italy

Acute myeloid leukemia (AML), the most common acute leukemia in adults, may develop fatal lung complications. Lung leukemic infiltration is rarely described and hardly diagnosed as it mimics infections or pulmonary haemorrhage, more common complications. A 73-year-old female affected by AML with t(8;21) with mutated FTL3 ITD treated with decitabine, was admitted to the hospital because of acute respiratory failure suspected as lung aspergilliosis. In the last 5 months, she had several episodes of fever, chills, bilateral pleural effusion, lung basal atelectasis, para-vertebral consolidations and diffuse smooth septal thickening, repeatedly treated with antibiotics, anti-fungal and steroids, without any significant improvement. Microbiology was negative, including aspergillar Ag and D glucan; at CT scan persistent pleural effusion and basal atelectasis, new extensive areas of consolidation and diffuse areas of crazy paving were detected. Trans-bronchial biopsy showed multiple foci of diffuse alveolar damage. High-dose steroid was started based on possible drug lung injury achieving an impressive clinical and radiological improvement. However, after 3 weeks, she developed a new pneumonia complicated by fatal gastrointestinal haemorrhage. Unexpectedly, autopsy revealed a multiorgan massive leukemic infiltration, including lungs and meninges. No infections were detected in any organ. In conclusion, we report an unusual case of AML to point out possible lung leukemic infiltrates as cause of respiratory failure, to be taken into account when antibiotics and antifungal are ineffective.

#### Case report: an unusual cause of multiple arm fracture

M.T. Lavazza<sup>1</sup>, C. Marchesi<sup>1</sup>, C. Ferrari<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovestmilanese, Ospedale di Legnano, UOC Medicina Interna, Italy

A 81-year-old man was found at home unconscious, with sphincters release after an episode of generalized tonic-clonic seizures. He was known to have epilepsy, hypertension, neurogenic bladder, chronic pancreatitis and Roux-en-Y duodeno-jejuno-stomy. In the Emergency Department he was alert but restless; he complained of abdominal pain, difficult to characterize. At the initial consultation he presented tongue bite, moderate tenderness in abdomen and hypotension (PA 80/43 mmHg). The laboratory tests showed anemia (Hb 7.8 gr/dl), CPK 457 U/L, LDH 774 U/L, D-Dimer 15798 ng/ml, metabolic acidosis (pH 7.340, pCO<sub>2</sub> 32 mmHg, pO<sub>2</sub> 66 mmHg, HCO<sub>3</sub><sup>-</sup> 20.4 mmol/L). He underwent computed tomography, which ruled out aortic dissection, abdominal emergency and pulmonary embolism. He was treated with fluid challenge, and blood transfusion; no improvement was noted. Since during observation he presented an inability to move both upper and lower arms, due to intense pain, he underwent a new physical examination, revealing lower limbs externally rotated and painful stiff shoulders; there was no peripheral neurologic or vascular deficit. He underwent X-Ray scans of the upper and lower arms, which showed bilateral humerus fractures and bilateral subcapital neck femurs fractures, which was attributed to a non-traumatic complication of the tonic-clonic seizures. Given the compromised general conditions, he was not treated with surgery.

#### A dangerous drug which can change your skin and your life. Allopurinol for asymptomatic hyperuricemia: a case report

L. Lenzi<sup>1</sup>, L. Castellani<sup>2</sup>, A. Pollastri<sup>1</sup>, S. Cozzio<sup>1</sup>

<sup>1</sup>UO Medicina, Rovereto (TN); <sup>2</sup>Dermatologia, Rovereto (TN), Italy

**Background:** Allopurinol for asymptomatic hyperuricemia (AH) carries some risks and it is not generally recommended. We report a case of allopurinol induced - Drug Rash with Eosinophilia and Systemic Symptoms (DRESS) syndrome, a potentially life-threatening hypersensitivity reaction characterized by a skin rash, fever, eosinophilia, lymphocytosis and visceral involvement. Allopurinol dose, kidney impairment, diuretic use, and HLA B58:01 are risk factors.

**Case report:** A 55-year-old man with a history of hypertension and hyperuricemia was admitted to the hospital for fever and erythematous rash. His medications included lercanidipine, enalapril, silodosin, nebiivolol and 3 weeks before was introduced allopurinol. Drug reaction suspected allopurinol was discontinued. DRESS

syndrome was confirmed by the RegiSCAR scoring criteria and by Japanese group's criteria. Leukocytosis, eosinophilia, high IgE and hepatitis were detected. HLA-B\*58 was positive, HHV6 IgM-Ab negative, IgG positive. Macrophage activation (ferritin 40728 ng/ml) with progressive lymphadenopathy was observed. The patient was treated with systemic steroid and added N acetyl Cysteine IV. Liver function normalized over the next 4 weeks, and his skin eruption resolved, as lymphadenopathy. Steroid was tapered till to stop.

**Conclusions:** Allopurinol therapy must be always a cost-effective decision and AH, generally, doesn't require it. Drug related adverse skin reactions, if not suspected, could be catastrophic. Some authors suggest genotyping for HLA 58:01 before allopurinol prescription.

#### The role of bedside-ultrasound in the diagnosis of abdominal aortic dissection

G. Lettieri<sup>1</sup>, F. Quaglia<sup>1</sup>, C. Sacco<sup>1</sup>, T. Perrone<sup>2</sup>, G. Bertolino<sup>2</sup>, C.L. Balduini<sup>1</sup>

<sup>1</sup>Università di Pavia; <sup>2</sup>IRCCS Policlinico San Matteo, Pavia, Italy

**Introduction:** Ultrasound (US) is an emerging tool for detection and screening of abdominal aortic aneurysms (AAA), though CT-angiography remains the first imaging technique in the pre-operative planning. Since CT-angiography implies the effects of cumulative radiation and intravenous nephrotoxic contrast, US could potentially become the first line tool in the screening and follow-up of AAA.

**Case report:** A caucasian 88-year-old man with history of hypertension, peripheral arterial occlusive disease at lower limbs, chronic renal failure, ischemic stroke and recent finding of intestinal polyps and diverticular disease, was admitted to our department for syncope. On the admission physical examination, he was normotensive, had normal pulses of four limbs and presented mild abdominal pain in epigastrium and right hypochondrium. Blood tests showed mild anemia and elevation of inflammatory markers. Abdominal radiography was negative. Bed-side abdominal ecography suspected an acute dissection of sub-renal AAA with intramural hematoma. These findings were confirmed by CT-angiography. The patient underwent a successful endovascular aortic repair. In the post-operative the patient was haemodynamically stable and asymptomatic.

**Discussion:** We described this case to reinforce the usefulness of bed-side US in the detection of AAA, and in the evaluation of its related complication. In this case we rapidly lead the patient to urgent surgical treatment, since we rapidly confirmed the suspected diagnosis with US without side effects.

#### Late diagnosis of a percutaneous endoscopic gastrostomy induced gastrocolic fistula

E. Limido<sup>1</sup>, S. Casati<sup>1</sup>, D. Tettamanzi<sup>1</sup>, C. Bassino<sup>1</sup>, R.M. Muraca<sup>2</sup>, A. Paddeu<sup>3</sup>, P. Pozzi<sup>3</sup>, D. Mangiacasale<sup>3</sup>

<sup>1</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate Cantù (CO), U.O. Medicina Generale; <sup>2</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù (CO), U.O. Radiologia Diagnostica;

<sup>3</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù (CO), U.O. Riabilitazione Specialistica Cardio-Respiratoria, Italy

**Introduction:** Percutaneous Endoscopic Gastrostomy (P.E.G.) placement, necessary and frequent event in degenerative neurological diseases, has low incidence of major (about 2.8%) and minor (8%) complications. It should be made early, in absence of severe malnutrition or lung function deficiency.

**Materials and Methods:** D.T. is a 62 years old woman with ALS. PEG placement was described without complications. After an initial recovery, she began to have diarrhea, and weight decrease. Clinical checks regularly performed in Neurological surgery. She was admitted to our hospital with malnutrition, diarrhea and respiratory failure. We suspected a dislocation of gastrostomy tube after the first probe replacement.

**Results:** An upper endoscopy demonstrated no internal bumper and a fistula orifice at the anterior wall of stomach. Contrast medium confirmed the probe in transverse colon and communication with the gastric cavity. The probe was removed with complete closure of

both fistulae. A traditional positioning PEG was complicated by a respiratory failure with observation in intensive care.

**Conclusions:** The diagnosis was late because the patient was never observed at the endoscopy center. The persistence of a fistula between the stomach and colon mitigated typical symptoms. Malnutrition and ventilator failure induced a further complication during the re-positioning of PEG. We conclude the need that ALS patients have an early PEG placement and periodic checks at the placement center. Malnutrition and ventilatory defect confirmed to be a situation of risk for even minimally invasive procedures.

### Percutaneous endoscopic gastrostomy placement for nutritional purposes. Critical and survival analysis at one year follow-up

E. Limido<sup>1</sup>, D. Tettamanzi<sup>1</sup>, C. Bassino<sup>1</sup>, M. Frigerio<sup>1</sup>, M. Ferri<sup>2</sup>, E. Pozzoli<sup>2</sup>, M. Golia<sup>2</sup>, M. Azzola Guicciardi<sup>2</sup>

<sup>1</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù (CO), U.O. Medicina Generale; <sup>2</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù (CO), U.O. Chirurgia Generale-Endoscopia Multidisciplinare, Italy

**Introduction:** PEG described by Ponsky Gauderer in 1980 has had a widespread use over the years. Its application has given excellent results in the treatment of degenerative neurological diseases, however in advanced dementia has never showed significant benefits on survival, improvement of pressure sores and episodes of aspiration. His execution is often associated with a high mortality rate in the short term and this has prompted an ethical debate.

**Materials and Methods:** We evaluated PEG placements for neurological dysphagia in the first six months of 2015 in our Hospital. We evaluated a simple but strong index: the 30-day and 1-year mortality from probe positioning.

**Results:** From January to June 2015 29 PEG were placed (17 males and 12 females). 10 were inpatients for other reason and 19 outpatients. Of these, 8 came from Socio-Sanitary Residences and 11 from home. We had only one complication of premature displacement (1 week) managed without any major problems with endoscopic repositioning. Mortality at 30 days of placement was 20%, 18 patients corresponding to 62% of cases were alive and in stable clinical condition, and 5 (17%) drop-out. After one year we observed only one additional death keeping mortality at 20.6%.

**Conclusions:** Mortality at 30 days after PEG placement is high (about 20%) but it remains stable after one year. We didn't analyzed PEG effect on quality of life not being subject of this study. A rigorous selection of patients would treat only those with proper life expectancy and reduce the high rate of early mortality

### Early left ventricular dysfunction, arterial stiffness, proangiogenic haematopoietic cells and vitamin D levels in patients with psoriatic arthritis

A. Lo Gullo<sup>1</sup>, C.O. Aragona<sup>1</sup>, E. Imbalzano<sup>1</sup>, G. Romano<sup>2</sup>, A. Saitta<sup>1</sup>, G. Mandraffino<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Clinica e Sperimentale, Università degli Studi di Messina; <sup>2</sup>Medicina Interna, Ospedale Guzzardi, Vittoria (RG), Italy

**Background:** Patients with psoriatic arthritis (PsA) have an increased prevalence of cardiovascular diseases (CVD) that are the leading cause of death in PsA. Furthermore patients with PsA have an high prevalence of vitamin D (vit-D) deficiency, an independent predictor of cardiovascular diseases. We aimed to evaluate left ventricular (LV) mechanics of patients with PsA without CVD using a technique, which evaluates myocardial deformation for the detection of impaired LV function. We evaluated carotid intima media thickness (cIMT), pulse wave velocity (PWV), circulating proangiogenic haematopoietic cells (PHCs), as markers of endothelial dysfunction. We investigated the association between vitamin D levels, inflammatory mediators, markers of endothelial and myocardial dysfunction in patients with PsA.

**Methods and Results:** The study enrolled 19 PsA patients and sex-age matched 16 controls. Conventional echocardiography, speckle tracking echocardiography (STE), Global longitudinal, circumferential strain were measured. PHCs and vitamin D were lower in PsA compared to controls, while fibrinogen, CRP, PWV, cIMT

were higher in PsA. STE analysis showed that PsA patients had significantly lower global longitudinal and circumferential strain versus controls. Vitamin D levels correlate with ejection fraction, longitudinal strain, PHCs, diseases activity markers, fibrinogen.

**Conclusions:** Subclinical myocardial deformation and endothelial dysfunction were common in patients with PsA. Furthermore seem that vitamin D might have a role in the endothelial homeostasis and myocardial function.

### Apnee ostruttive nel sonno e pattern pressorio notturno non dipper in una popolazione di anziani ipertesi

C.A.M. Lo Iacono<sup>1</sup>, J.M. Escudero Ortega<sup>2</sup>, A. Di Berardino<sup>3</sup>, A. Ponzio<sup>4</sup>

<sup>1</sup>Azienda Ospedaliera Universitaria Policlinico Umberto I; <sup>2</sup>Ospedale Israelitico Roma; <sup>3</sup>Sapienza Università di Roma; <sup>4</sup>Sapienza Univeristà di Roma, Italy

**Premesse e Scopo dello studio:** Il *non dipping* notturno è di frequente riscontro nell'anziano e può riflettere uno stato di disautonomia o un disturbo respiratorio nel sonno. È stata valutata l'associazione tra OSAS e profilo pressorio notturno non Dipper in una popolazione di pazienti geriatrici ipertesi. L'OSAS infatti rappresenta un fattore di rischio cardiovascolare indipendente.

**Materiali e Metodi:** Sono stati arruolati 212 pazienti (113 maschi e 99 femmine) con diagnosi di ipertensione arteriosa essenziale. Età media 72 anni+- 6,6 anni. Sono stati registrati parametri antropometrici, bioumorali. È stato effettuato il monitoraggio ambulatorio della pressione arteriosa delle 24h, il test della sonnolenza diurna, il monitoraggio cardio respiratorio completo notturno.

**Risultati:** L'analisi del profilo pressorio ha mostrato una maggiore prevalenza del non dipping notturno tra i pazienti con diagnosi di OSAS, rispetto ai pazienti ipertesi anziani non OSAS indipendentemente da fattori di confondimento (età, sesso, BMI, tabagismo e abuso di alcool) uguale nei due gruppi. La prevalenza del non dipping notturno aumenta proporzionalmente alla gravità dell'OSAS. I pazienti con OSAS grave tendono ad avere un pattern Inverted.

**Conclusions:** Esiste una relazione tra fenomeno non dipping notturno e OSAS. La prevalenza del non dipping pattern notturno è aumentata negli ipertesi anziani con OSAS moderata/grave. Il non dipping pattern ha un ruolo prognostico negativo. La CPAP è in grado di modificare il profilo pressorio notturno e ridurre gli eventi cardiovascolari?

### Progetto M.U.S.E. per la valutazione dei pazienti anziani cronici ambulatoriali

M. Lo Monaco<sup>1</sup>, R. Mallaci Bocchio<sup>1</sup>, F. Cavallaro<sup>1</sup>, N. Catalano<sup>1</sup>, G. Natoli<sup>1</sup>, G. Carruba<sup>1</sup>, E. Bruscia<sup>1</sup>, F. Gargano<sup>2</sup>, S. Corrao<sup>1</sup>

<sup>1</sup>U.O.C. di Medicina Interna con Reumatologia, Dermatologia e Allergologia, Azienda di Alto Rilievo Nazionale e Alta Specializzazione ARNAS Civico-Di Cristina-Benfratelli, Palermo; <sup>2</sup>IPASVI, Palermo, Italy

**Premesse e Scopo dello studio:** Le riaccutizzazioni delle patologie croniche, nei pazienti anziani fragili, determinano una riduzione della qualità di vita e significativi aumenti dell'utilizzo di risorse e dei costi in sanità. Una valutazione Multidimensionale del soggetto anziano permette l'identificazione del livello di stabilità o fragilità del paziente e di conoscere nel tempo l'evoluzione della malattia e i punti critici nella storia della persona, adattando gli interventi per ridurre il rischio di disabilità, ospedalizzazione e morte. Lo scopo del nostro studio è quello di implementare un nuovo approccio di cure, il M.U.S.E "Multidimensional aSessment of Elderly" project.

**Materiali e Metodi:** Sono stati reclutati pazienti di età superiore a 65 anni affetti da patologie croniche e comorbidità. Una equipe multi-professionale effettua una valutazione completa del paziente valutando la funzionalità respiratoria, cardiocircolatoria, le funzioni cognitive, il livello di autonomia e lo stato nutrizionale. Sono inoltre previsti specifici percorsi di cura per i pazienti affetti da almeno una delle tre maggiori patologie croniche (BPCO, Scemenso Cardiaco e Diabete) al fine di ottenere una valutazione specifica. Sono stati analizzati outcome a lungo termine (follow-up a tre mesi e un anno).

**Risultati e Conclusions:** L'attuazione del modello di valutazione multidimensionale M.U.S.E. sembra soddisfare i bisogni di cure dei pazienti e permette di ottenere una valutazione completa delle comorbidità e dello stato nutrizionale, della funzionalità fisica e



cognitiva. Il progetto è iniziato nel mese di ottobre 2016, in corso.

### Non-cirrhotic portal hypertension

P. Loizos<sup>1</sup>, S. Ziyada<sup>2</sup>, M. Romano<sup>2</sup>, M. Zippi<sup>3</sup>, F. Lorenzi<sup>2</sup>, D. Sebastiano<sup>2</sup>, A. De Rosa<sup>2</sup>, R. Baroni<sup>2</sup>, A. Fierro<sup>2</sup>

<sup>1</sup>Family Physician ASL Roma 2, Rome; <sup>2</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome; <sup>3</sup>Gastroenterology and Digestive Endoscopy Unit, Sandro Pertini Hospital, Rome, Italy

**Introduction:** Portal hypertension (PH), defined as an increase in hepatic sinusoidal pressure over 6 mmHg, is caused by a combination of changes in portal resistance and inflow. Etiology can be divided in pre, intra, and post-hepatic. Differential diagnosis is important in terms of prognosis and patient treatment.

**Case report:** A 57-year-old man was admitted due to hematemesis. His medical history is Fasciola hepatica, treated with alternative medicine. Laboratory parameters revealed anemia, prolonged INR, EGDS showed esophageal F2-F3 varices. CT of the abdomen showed thrombosis of the right branch of the portal vein, splenomegaly, splenic vein dilation, conserved liver and hypertrophy of the caudate lobe. Serological testing for viral, parasitic and autoimmune hepatitis were negative.

**Discussion:** Hepatic vein pressure gradient has been used traditionally to assess PH, it is an invasive method. The presence of esophageal varices in our patient indicates the chronic nature of the increase. Common causes of PH were excluded through lab and radiologic testing. Portal vein thrombosis can be the cause of portal hypertension, also represents the most common cause in cirrhosis evolution. Most cases of PVT are related to states of systemic or local hypercoagulability. In our patient testing for genetic mutations was negative. Cholangitis has been described as an infrequent cause of PVT. This is the first case to our knowledge of *Fasciola Hepatica* cholangitis resulting in PVT.

### A dangerous combination of drugs

F. Lombardini<sup>1</sup>, M. Stabilini<sup>1</sup>, R. Piras<sup>1</sup>, P. Pisano<sup>1</sup>, A. Caddori<sup>1</sup>

<sup>1</sup>ASSL Cagliari, S.C. Medicina Interna, Ospedale SS. Trinità, Cagliari, Italy

**Clinical case:** 55 years old woman affect by Paranoid schizophrenia. Already being treated with Aripiprazole and Valproic Acid for several years. Two weeks before admission had been added to therapy the Lamotrigine, to the worsening of psychotic disorders. She has come to our attention for mental and physical agitation with hyperpyrexia.

**Course:** During the hospitalization reports the appearance of skin rash, scleral jaundice, and hepatomegaly with increment of all liver function tests, especially GGT, ALP, and direct Bilirubin. It performs numerous blood and instrumental tests, including liver biopsy that showed an iatrogenic type of cholestatic hepatitis. Complete clinical resolution with supportive care and the immediate suspension of the implicated drugs, after about two months.

**Conclusions:** The combination of Lamotrigine with Valproic Acid is known to cause severe skin manifestations and acute liver diseases in young epileptic patients. However, even in adult patients the combination of the two drugs must be avoided.

### Immunoglobulin-related amyloidosis in a young patient

A. Lopardo<sup>1</sup>, S. Ziyada<sup>1</sup>, S. Caponigro<sup>1</sup>, M. Galliani<sup>2</sup>, C. Taffon<sup>3</sup>, A. Santoro<sup>1</sup>, M. Romano<sup>1</sup>, A. Fierro<sup>1</sup>

<sup>1</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome;

<sup>2</sup>Nephrology and Dialysis Department, Sandro Pertini Hospital, Rome;

<sup>3</sup>Pathological Anatomy Unit, Policlinico Universitario Campus Bio-Medico, Roma, Italy

**Introduction:** Multiple myeloma is a monoclonal plasma cell proliferative disorder in which the malignant cells can produce immunoglobulins called monoclonal (M) protein, mostly IgG paraproteins but also light and or heavy chains. These proteins are filtered by kidneys becoming Bence-Jones protein and deposited in tissues causing AL amyloidosis and progressive organ failure of involved sites.

**Case report:** A 49-year-old man was admitted with dyspnea and

anasarca. Laboratory parameters revealed thrombocytosis, hypoalbuminemia, hypercholesterolemia and severe proteinuria. A total body CT showed pleural effusion, ascites, hepatomegaly and lymphadenopathy. Serum and urine immunofixation identified the presence of kappa free light chains. Both septal and left ventricular posterior wall thicknesses were increased in echocardiography. The bone marrow biopsy demonstrated the presence of clonal plasma cells and apple-green birefringence of Congo red stained preparates under polarized light indicative of amyloid. Also renal biopsy showed AL amyloidosis.

**Discussion:** Multiple myeloma causes a number of complications, including infiltration of bone marrow, anemia, lytic bone lesions, hypercalcemia, decreased immunity to infection and kidney damage. In our patient kidney injury was not related to cast nephropathy (myeloma kidney), but due to glomerular deposition of AL amyloid-proteins causing nephrotic syndrome. In addition amyloidosis was responsible for the cardiac involvement and hepatomegaly. Progressive organ involvement influences significantly patient survival and treatment strategies.

### Gastrointestinal manifestations of Churg-Strauss syndrome

F. Lorenzi<sup>1</sup>, S. Ziyada<sup>1</sup>, M. Romano<sup>1</sup>, M. Fiorani<sup>1</sup>, M.C. Zaccaria<sup>1</sup>, M.A. Perretti<sup>1</sup>, P. Lepore<sup>1</sup>, M. Galliani<sup>2</sup>, A. Fierro<sup>1</sup>

<sup>1</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome;

<sup>2</sup>Nephrology and Dialysis Department, Sandro Pertini Hospital, Rome, Italy

**Introduction:** Churg-Strauss Syndrome (CSS) is a small and medium vessel vasculitis that is also known as allergic granulomatous angiitis and is defined by six criteria: Eosinophilia >10%; Asthma; Mono- or polyneuropathy; pulmonary infiltrates on chest radiography; Paranasal sinusitis; Biopsy containing blood vessels with extravascular eosinophils. The presence of 4 or more criteria yields a sensitivity of 85% and a specificity of 99.7%.

**Case report:** A 44-year-old woman was admitted with rectal bleeding after two days of NSAID treatment. Her medical history is allergic bronchitis. Laboratory examinations showed anemia and eosinophilia. Gastroscopy detected multiple gastric erosions, colonoscopy with biopsy showed acute and chronic inflammation, chest and abdomen CT was negative, EMG was suggestive of axonal sensory-motor neuropathy, autoimmune screening showed positive p-ANCA and decreased complement. Kidney biopsy showed a diffuse proliferative extracapillary glomerulonephritis compatible with a diagnosis of CSS.

**Discussion:** Gastrointestinal involvement is frequent in patients with CSS ranging from 17 to 59%. CSS is differentiated from eosinophilic gastroenteritis by the presence of vasculitis. Colonic involvement presents with abdominal pain, bleeding and diarrhea. Vasculitis is more often shown on intestinal resections than on colonoscopy biopsies. In summary we present a diagnostically challenging and atypical case of CSS presenting with abdominal pain, rectal bleeding and axonal sensory motor neuropathy which required extensive investigation and biopsy to achieve diagnosis.

### Studies of point prevalence of healthcare-associated infections and antimicrobial use in acute care hospitals (ASL 4 Chiavarese)

C. Lorusso<sup>1</sup>, I. Samengo<sup>1</sup>, B. Mentore<sup>1</sup>, G. Andreoli<sup>1</sup>, F. Orlandini<sup>1</sup>

<sup>1</sup>ASL 4 Chiavarese, Chiavari (GE), Italy

**Background and Aims:** In patient safety programmes, prevention and infection control play a strategic role. The aim of the study was to improve shared programs by increasing perception of the phenomenon at all professional levels.

**Materials and Methods:** In 2016 we carried out 4 point prevalence studies in all acute wards using the European Protocol ECDC. Hospital Infection Referents (HIRs) for each ward were involved.

**Results:** A totale of 1,189 patients was enrolled (mean age 71ys). Thirty-eight percent had a fatal/progressively fatal condition. The prevalence of HAI and cases was 9.9% and 8.9% respectively. The most frequent localizations were: respiratory tract (24%), urinary tract (24%), surgical site (23%) and bloodstream infections (14%). Eighty-three percent of patients presented at least one device: peripheral venous catheters (48%),

bladder catheters (24%), central venous catheters (8%) and intubation (2%). Thirty-five percent of patients received at least one antibiotic (penicillins-in-combination commonly used), the main indication was the treatment of the community-acquired-infection. Aetiology was documented in 47% of cases. Forty-seven percent of isolates were resistant: 63% among gram positive bacteria and 23% among gram negative one. These results are overlapping to previous years. This cannot be considered a failure of corrective interventions, because in absence of that the prevalence would have been increased. Monitoring of application of shared procedures against HAI must be stressed.

**Conclusions:** HAI are relevant health problem. A constant monitoring and tight control are needed.

### When the lack is double

P. Lotti<sup>1</sup>, F. Risaliti<sup>1</sup>, A. Foschini<sup>1</sup>, R. Martini<sup>1</sup>, M. Bertoni<sup>1</sup>, A. Giani<sup>1</sup>, L. Guarducci<sup>1</sup>, I. Bracali<sup>1</sup>, T. Restuccia<sup>1</sup>, G. Mugnaioni<sup>1</sup>, S. Zanieri<sup>1</sup>, E. Calabrese<sup>1</sup>, M.E. Di Natale<sup>1</sup>

<sup>1</sup>Medicina 2, Ospedale Santo Stefano di Prato, Prato (PO), Italy

**Clinical case:** Men, 66 years old, history of vitiligo, occasional high levels of LDH. After surgery he developed a severe hemolytic anemia, Coombs negative. He underwent to a red cells transfusion but immediately had a transfusion reaction with fever, chills and pain. What was going on? We found out a severe glucose 6 phosphate dehydrogenase deficiency and, looking into the causes of transfusion reaction, a selective IgA deficiency.

**Discussion:** The high level of LDH and the hemolytic anemia were related to the G6PD deficiency. In patients with a class II variant of G6PD deficiency (<10% of normal), there is intermittent hemolysis, typically on exposure to oxidant stress such as fava bean exposure or ingestion of certain drugs as in our case after the use of anesthetic drugs. The successive transfusion reaction was due to the selective IgA deficiency. Patients with IgA deficiency produce anti-IgA antibodies that react with IgA in the transfused product. Vitiligo and skin manifestations can be clinical feature of several primary immunodeficiency disorders. In a study published in 2015 a 3,6% of patients with a selective IgA deficiency had vitiligo.

**Conclusions:** Identification of G6PD deficiency and patient education is critical to preventing future episodes of hemolysis. This is even more important when the lack is double as in case of a selective IgA deficiency. In patients with skin disorders the dosage of immunoglobulin could avoid severe clinical manifestation as transfusion reaction.

### Un ictus...felino

D.M.F. Lucchesi<sup>1</sup>, E. Garlassi<sup>2</sup>, G.C. Contardi<sup>2</sup>, C. Lazzaretti<sup>3</sup>, L. Terroni<sup>4</sup>, R. Buono<sup>5</sup>, G. Magnani<sup>2</sup>

<sup>1</sup>Medicina di Emergenza Urgenza, Università di Modena e Reggio Emilia;

<sup>2</sup>Clinica di Malattie Infettive, Azienda Ospedaliera Santa Maria Nuova, IRCCS Reggio Emilia; <sup>3</sup>Clinica di Malattie Infettive, Università degli Studi di Modena e Reggio Emilia; <sup>4</sup>Dipartimento di Emergenza-Urgenza e Area Medica Generale e Specialistica, Azienda Ospedaliera Universitaria di Parma; <sup>5</sup>Anestesia e Rianimazione, Azienda Ospedaliera Santa Maria Nuova, IRCCS Reggio Emilia, Italy

**Caso clinico:** Maschio di 48 anni si presenta in PS per comparsa di afasia, disgrafia, amnesia anterograda e retrograda e disartria, senza deficit di lato, nè febbre. Dopo TC encefalo, nel sospetto di trombosi cerebrale eseguiva fibrinolisi. Per agitazione motoria, stato confusionale, ipertensione veniva eseguita rachicentesi (liquor limpido, cellule=1) e impostata terapia con Ceftriaxone e Aciclovir. Insorgenza acuta di versamento pleurico massivo bilaterale. RMN encefalo con MDC, ETE, culturale e virus erpetici su liquor, emocolture risultavano negative. La biopsia di linfadenomegalie inguinali mostrava reperto infiammatorio colliquativo. Venivano notati alcuni graffi sulle mani (paziente giardiniere e possessore di gatti), per cui si richiedeva sierologia Bartonella, risultata positiva (IgG positiva e IgM debolmente positiva). Impostata terapia con Doxiciclina per 4 settimane e Rifampicina per 2 settimane con netto miglioramento delle condizioni.

**Discussione:** Bartonellosi è solitamente caratterizzata da linfadenopatia associata a febbre e più raramente possono

essere interessati organi viscerali, SNC (encefalite, convulsioni, mielite traversa, radiculite ed atassia cerebellare) e apparato oculare (neuroretinite). Il quadro descritto poneva notevoli difficoltà gestionali e ostacoli diagnostici, in quanto encefalite da Bartonella a liquor negativo. I deficit neurologici focali in apiressia avevano indotto a diagnosi presuntiva di patologia vascolare acuta  
**Conclusioni:** L'etiologia da Bartonella va considerata nelle encefaliti a liquor limpido nelle quali siano state escluse altre etiologie più comuni.

### Pulmonary embolism in a patient with hereditary AT III deficiency treated with rivaroxaban: three years of follow up. Case report

P. Madonna<sup>1</sup>, M. Sacco<sup>2</sup>, V. Nuzzo<sup>1</sup>, A. Zuccoli<sup>1</sup>

<sup>1</sup>UOC Medicina, S. Gennaro, ASL NA1 Centro, Napoli; <sup>2</sup>Medicina d'Urgenza, AORN Cardarelli, Napoli, Italy

AT III is a natural anticoagulant that inhibits factor IIa and factor Xa in the coagulation cascade. Hereditary AT III deficiency is a rare disorder affecting 0.02 to 0.2 percent of the general population; 50-90% untreated individuals will suffer venous thromboembolism (TEV) within their lifetime, even in the absence of additional thrombotic risk factors. The risk of thrombosis depends on the type of AT III deficiency and how severely its function or level are affected. Few cases are described in patients with AT III deficiency and TEV treated with direct oral anticoagulant (DOAC) therapy. Since March 2014, two sisters affected by hereditary AT III deficiency were referred to our ambulatory because they have suffered from TEV. The older sister (67 ys) developed a deep vein thrombosis of the leg in 1997 when she was 48 ys; in this occasion 56% plasma levels of AT III were found; oral anticoagulant therapy with warfarin (INR 2-3) was started and since then she didn't suffer from recurrent TEV. In 1997 her younger sister (64 ys) was also screened for AT III deficiency and low plasma levels (61%) were found. In February 2014 she developed pulmonary embolism and DOAC therapy (eg Rivaroxaban 15 mg twice/day for 3 weeks followed by 20 mg once day) was started. Actually, after 3 years of follow up, she hasn't recurrent TEV and her quality of life is better than her sister (INR monitoring, free diet). Though the short period of follow up, we think that further investigations on DOAC therapy in patients with severe thrombophilia (eg AT III deficiency) and TEV are needed.

### RRI age-related better than fixed cut-off describe fibrotic involvement in systemic sclerosis

V. Maestripieri<sup>1</sup>, C. Bruni<sup>1</sup>, G. Tesi<sup>1</sup>, C. Sambalino<sup>2</sup>, M. Chiostri<sup>2</sup>, S. Guiducci<sup>2</sup>, S. Bellando-Randone<sup>2</sup>, M. Matucci-Cerinic<sup>1</sup>, M. Boddi<sup>1</sup>

<sup>1</sup>Università degli Studi di Firenze, Firenze; <sup>2</sup>AOU Careggi, Firenze, Italy

**Background:** Renal resistive index (RRI) reflects changes in renal vascular and tubular-interstitial compartments and in systemic vascular compliance. In general population aging affects RRI values by increased systemic vascular stiffness. In systemic sclerosis (SSc), RRI was related with disease duration, GFR and nailfold-video-capillaroscopy pattern. In SSc kidney the role of aging on RRI values was never investigated.

**Methods:** In our population we analyzed the pattern of RRI values according to a) a fixed age-independent RRI (0.70) value as pathological cut-off or b) to SSc-specific age-adjusted pathologic cut-offs obtained by dividing SSc population in quartiles; pathologic RRI values were those above the 75th percentile of each quartile.

**Results:** 190pts (56±15yrs, disease duration 6±8yrs, 66 with hypertension, 5 with DM, 13 with hyperuricaemia) were enrolled. In the whole SSc population RRI was positively related with age (p<0.001), hypertension (p<0.001), DM (p=0.044) and hyperuricaemia (p=0.006). When considering 0.70 RRI, as fixed pathologic cut-off, RRI pattern was related with renal function, DLCO and skin involvement. On the contrary age-related RRI cut-offs were not associated with renal function, but with SSc fibrotic [interstitial lung disease (p=0.015), tendon friction rubs (p=0.032), skin fibrosis vs no skin involvement (p<0.001), higher mRSS (p=0.001)] and vascular damages [late scleroderma pattern (p=0.002), DU (p=0.006)].

**Conclusions:** Age-related pathologic RRI cut-offs better than a

fixed age-independent RRI cut-off identifies SSc pts with fibrotic and vascular extra-renal damages

### Worsening lower limb weakness

V. Maestri<sup>1</sup>, L. Fallai<sup>1</sup>, C. Tozzetti<sup>2</sup>, M. Torri<sup>2</sup>, L. Poggesi<sup>1</sup>

<sup>1</sup>Università degli Studi di Firenze, Firenze; <sup>2</sup>AOU Careggi, Firenze, Italy

A 77 yo man presented at the ER for symmetric distal lower limbs paresthesia and back pain began 1 week before. He referred no other symptoms. His medical history was notable for diabetes mellitus, hypertension, coronary artery disease, COPD, prostatectomy for heteroplasia and a multifactorial lower limbs polyneuropathy diagnosed in 2007 with electromyography (EMG) due to diabetes and B12 deficit in history of alcohol abuse. His medications included calcium antagonists, diuretics and aspirin. At physical examination he correctly performed Mingazzini I and showed slight symmetrical weakness in Mingazzini II, conserved symmetrical tendon reflexes and no deficit of sensibility (pallestesic and thermo-dolorific); he was able to walk without support. The EMG showed axonal polyneuropathy without denervation's sign. Biochemical examination showed vitamin B12 deficit. He was discharged with vitamin B12 supplement therapy and ambulatory follow up. 7 days after discharge he presented to ER unable to walk with sensibility deficit of lower limbs, slight weakness of upper limbs and no tendon reflexes. He also presented acute urinary retention treated with catheterization and respiratory failure necessitating oxygen support. EMG showed initial signs of denervation. A lumbar puncture with CSF analysis showed albumin-cytological dissociation, suggesting Guillain-Barré Syndrome with subacute onset. The patient was treated with IVIg with improvement of muscular strength both in upper and lower limbs and after a week of hospitalization was transferred to a rehabilitation hospital.

### Adherence of a small population of Type 2 diabetes mellitus patients of an hospital outclinic to the mediterranean diet assessed through the PREDIMED questionnaire

A. Maffettone<sup>1</sup>, E. Fiorillo<sup>1</sup>, A. Campanile<sup>1</sup>, M. Borgia<sup>1</sup>, M. Rinaldi<sup>1</sup>, O. Maiolica<sup>1</sup>

<sup>1</sup>UOC Medicina, AO Ospedali dei Colli, Napoli, Italy

The concept of the Mediterranean diet goes back to the '60s, when the Seven Country Study results demonstrated that Mediterranean populations showed a reduced incidence of cardiovascular diseases and cancer than other populations studied. Numerous subsequent epidemiological studies showed that a strict adherence to this dietary pattern is associated with a lower incidence of mortality. In 2003, NEJM published the results of the PREDIMED study, where authors used a questionnaire of adherence to the Mediterranean diet. In the last three months of 2016 we performed this questionnaire to T2DM patients of our hospital outclinic. We enrolled 470 patients with T2DM: 270 M and 200 F, aged 65+7 years: 370 using oral hypoglycemic agents and 100 treated with basal insulin added to hypoglycemic oral drugs. Based on the responses from the questionnaire, we found the following results: 80 patients showed poor adherence (18%) to diet, 320 had an average adherence (68%), 70 patients a good adherence (14%). This adherence was inversely proportional to the IMC of patients: respectively 32, 31, 30 BMI. These results show that only a small portion of our patients has proper adherence to a healthy and balanced diet.

### Effectiveness of a nutritional structured educational intervention on glycemic control in patients with Type 2 diabetes mellitus

A. Maffettone<sup>1</sup>, A. Campanile<sup>1</sup>, E. Fiorillo<sup>1</sup>, N. Corcione<sup>2</sup>, E. Scarano<sup>3</sup>, T. D'Errico<sup>4</sup>, M. Rinaldi<sup>1</sup>, O. Maiolica<sup>1</sup>

<sup>1</sup>UOC Medicina Cardiovascolare e Dismetabolica, AO Ospedali dei Colli, Napoli; <sup>2</sup>Dipartimento Medicina Specialistica, Diagnostica e Sperimentale, UOC Pneumologia e Terapia Intensiva Respiratoria, Ospedale S. Orsola Malpighi, Bologna; <sup>3</sup>Dipartimento di Medicina Clinica e Chirurgica, Sezione di Endocrinologia, Università Federico II, Napoli; <sup>4</sup>UOC Medicina, Ospedale S. Maria del Popolo degli Incurabili, Napoli, Italy

The management of T2DM is often difficult because of patients' poor adherence to given nutritional recommendations. We decided to evaluate the impact of an intervention of Structured Therapeutic Education (ETS) through educational group meetings performed by qualified nutritionists of our metabolic team. We enrolled 110 pts with T2DM: 60 were followed by nutritionists in group sessions (maximum 8 participants at a time), fortnightly; in the meetings, pts were counseled through the instrument of the Conversation Maps. Patients completed questionnaires of food compulsiveness (BES) and malnutrition (MUST) before entering the groups. We used as a control group 50 pts receiving standard medical therapy. At 0, 6 and 12 months we evaluated metabolic parameters such as BMI, glycated hemoglobin, waist to hip ratio. The patients of the experimental group had at 6 months a reduction of 1.8% in HbA1c vs. 0.5% in the control group. In these pts, in addition, only 18% (n=22) at 12 months had HbA1c>7%, while in the control group, 48% (n=58) had HbA1c>7%; this last difference was not present at 12 months. The findings suggest that interventions of ETS have a positive effect on patient compliance for a better glycemic control, but they must be carried out periodically over time.

### Comparing insulin glargine (Lantus) and insulin glargine U300 (Toujeo) in a group of Type 2 diabetes mellitus patients naive to insulin therapy

A. Maffettone<sup>1</sup>, M. Rinaldi<sup>1</sup>, E. Fiorillo<sup>2</sup>, A. Campanile<sup>2</sup>, O. Maiolica<sup>1</sup>

<sup>1</sup>UOC Medicina Cardiovascolare e Dismetabolica, AO Ospedali dei Colli, Napoli; <sup>2</sup>UOC Medicina, CaUOC Medicina Cardiovascolare e Dismetabolica, AO Ospedali dei Colli, Napoli, Italy

Since the recent market immission of GlarU300 (Toujeo), we decided to compare the standard Glar and GlarU300 in a group of T2DM pts naive for insulin therapy. We studied 12 pts (6 M and 6 F) aged 50+15 treated only with oral hypoglycemic agents, with Diabetes duration of at least 5 yrs, with baseline HbA1c >6.8% (from 6.8% to 10%) mean BMI 29.3. We assigned them sequentially to the 2 drugs. The 2 groups were homogeneous for BMI and sex (3M and 3F) in each group. At time 0, 3, 6 months we evaluated: BMI, HbA1c and number of hypoglycemias. The basal insulin doses, always administered at 10.00 pm, were determined on the basis of 50% of the insulin requirement in every subject (0.5 U/kg). The weight differed between individuals, but not between the 2 groups and mean BMI was unchanged in both groups. HbA1c at 30 days lowered of 0.8%, no differences in the 2 treatment groups, but at 6 mo mean HbA1c values returned to their initial values (7.5%). The only obvious difference between the two treatment groups was observed in hypoglycemias: 2 episodes of nocturnal hypoglycemia occurred only in the group receiving glargine (Lantus).

### Faster-acting insulin aspart versus insulin aspart as part of basal-bolus therapy improves postprandial glycemic control in uncontrolled Type 2 diabetes in the double-blinded Onset® 2 trial

A. Maffettone<sup>1</sup>, B.B. Bowering<sup>2</sup>, C.C. Case<sup>3</sup>, J.H. Harvey<sup>4</sup>, M.S. Sampson<sup>5</sup>, R. Bang<sup>6</sup>, D. Bretler<sup>6</sup>, M.R. Reeves<sup>7</sup>, B. Bruce<sup>8</sup>

<sup>1</sup>U.O. di Medicina Interna Ospedali dei Colli, Napoli, Italy; <sup>2</sup>University of Alberta, Edmonton, AB, Canada; <sup>3</sup>Jefferson City Medical Group, Jefferson City, MO, USA; <sup>4</sup>Wrexham Academic Unit, Bangor University, Bangor, UK; <sup>5</sup>Norfolk and Norwich University Hospitals NHS Foundation Trust, Norwich, UK; <sup>6</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>7</sup>Diabetes Clinical Trials, Chattanooga, TN, USA; <sup>8</sup>Atlanta Diabetes Associates, Atlanta, GA, USA

A multicenter, double-blind, treat-to-target trial evaluated the efficacy of faster-acting insulin aspart (faster aspart) versus insulin aspart (IAsp) in adults with uncontrolled T2D on basal insulin and OADs. After optimizing basal insulin glargine during an 8-week run-in (mean HbA1c 7.9%), subjects were randomized 1:1 to meal-time faster aspart (n=345) or IAsp (n=344), each with glargine and metformin, using a simple daily patient-driven titration algorithm. Primary endpoint: mean change in HbA1c from baseline (BL) to Week 26, was -1.38% and -1.36% for faster aspart and IAsp; mean HbA1c was 6.6% for both arms. Faster aspart demonstrated non inferiority versus IAsp in reducing HbA1c (est. treat-

ment difference [95% CI]: -0.02% [-0.15; 0.10]). Both basal-bolus (BB) regimens improved PPG control. The 1-h PPG increment (meal test) was statistically significant in favor of faster aspart (Fig). Rates of overall severe or confirmed hypoglycemia (PG <3.1 mmol/L [56 mg/dL]) were comparable. In T2D, mealtime faster aspart and IAsp in a BB regimen achieved excellent glycemic control and reduced HbA1c from BL to 6.6%, confirming non-inferiority of faster aspart to IAsp, using a simple daily patient-driven titration algorithm. Faster aspart effectively improved 1-h PPG control versus IAsp without increasing overall hypoglycemia.

### Safety and effectiveness of a computerized subcutaneous insulin therapy management system: a pilot study

L. Magnani<sup>1</sup>, C. Sgarlata<sup>2</sup>, G. Beltramello<sup>3</sup>, M. Rollone<sup>4</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV); <sup>2</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>3</sup>ULSS 3, SC di Medicina Interna, Ospedale San Bassiano, Bassano del Grappa; <sup>4</sup>Azienda di Servizi alla Persona di Pavia, Istituto di Cura Santa Margherita, Pavia, Italy

**Background and Purpose of the study:** There is international consensus in considering that SC insulin therapy should be practiced according to a standardized scheme as the basal bolus or, in selected cases, by the use of the basal insulin alone, avoiding the "sliding scale" method (rapid insulin analogue administration based on bg before meals). The initial insulin daily dose should consider patient's weight and insulin resistance; any changes to the scheduled doses should be carried out using an appropriate correction factor. These recommendations are still largely disregarded and the insulin therapy management is often delegated to the "physician experience". This research was performed with the aim to evaluate the effectiveness of a computerized nurse based SC insulin therapy management system.

**Materials and Methods:** We developed a nurse based computer application able to: 1) calculate the initial SC insulin dose 2) select the appropriate starting insulin scheme; 3) provide automatically to the nurse the changes to the scheduled insulin dose based on bg readings; 4) optimize the initially calculated scheme by the use of a feedback algorithm considering bg trends. We used this software for the management of SC insulin therapy in 24 patients admitted at a geriatric ward of the "S. Margherita Institute" in Pavia.

**Results and Conclusions:** Our computerized SC insulin therapy system showed to be effective and safe in achieving glycemic control (no hypoglycemia episodes were observed). Automated dose correction also reduced the inappropriate request of medical intervention.

### A swelling localized to the right buttock in a young patient

V.M. Magro<sup>1</sup>, M. Fiore<sup>2</sup>, G. Bucciardini<sup>3</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Geriatria, Università degli Studi della Campania "Luigi Vanvitelli", Napoli; <sup>2</sup>Pediatra di Famiglia, Genova; Federazione Italiana Medici Pediatri (FIMP); <sup>3</sup>Medico di Medicina Generale, Figline Valdarno (FI), Italy

**Background:** Low-grade fibromyxoid sarcoma (LGFMS) is a rare soft-tissue sarcoma that usually presents in young-to-middle-aged adults as a painless, slow-growing mass with the potential for local recurrence and metastasis despite low-grade histology.

**Case report:** A 15 years old boy presents to the our observation for the presence of a swelling localized to the right buttock, denying trauma of all kinds and intensities. The physical examination demonstrated a small melon sized mass on the gluteus side of the thigh. The mass was tender but not soft consistency on palpation and it was mobile.

**Results:** Because the ultrasound examination was unable to clarify the exact nature of the swelling (hyperechogenic nodular sonographic appearance), the boy was sent to a second-level imaging. On MRI the mass showed relative hypointensity on T1-weighted images and hyperintensity on T2-weighted images as well as intense enhancement on contrast-enhanced T1-weighted images, suggesting that the tumor contained myxoid tissue. The subse-

quent needle biopsy led to the diagnosis of suspected LGFMS. Then we proceeded to the removal of the mass.

**Discussion and Conclusions:** A LGFMS has a tendency to develop in the deep soft tissue of young adults. The most common clinical presentation is a firm, slow-growing painless mass. The differential diagnosis of includes several benign and malignant neoplasms containing variable amounts of myxoid and fibrous tissue. The role of magnetic resonance in these cases is absolutely determinant for confirming the suspected diagnosis and treatment planning.

### Un raro caso di ictus da trombosi di moncone di vena polmonare

M. Maiello<sup>1</sup>, R. De Giovanni<sup>1</sup>, B. Grazioli<sup>1</sup>, A. Grossi<sup>1</sup>, A. Liguori<sup>1</sup>, C. Muscat<sup>1</sup>, G. Patavino<sup>1</sup>, F. Tiraferri<sup>1</sup>, C. Trojani<sup>1</sup>

<sup>1</sup>UO Medicina Interna-Angiologia, Ospedale Riccione, Azienda USL della Romagna, Italy

**Caso clinico:** 54aa, comparsa di disartria e deficit emisoma dx. Anamnesi: ipertensione arteriosa, nel 2014 intervento chirurgico di lobectomia polmonare superiore sinistra per adenocarcinoma. All'esame clinico: NIHSS 5. PA140/90, FC82. TCencefalo: negativa per lesioni in fase acuta, angio-TC: normale morfologia, calibro e decorso dei tronchi sovraortici, delle arterie intracraniche e dei loro rami. Dopo 2 ore remissione della sintomatologia con persistenza di lieve stato confusionale. Data la rapida regressione dei sintomi veniva esclusa trombolisi. Durante il ricovero eseguiti: Ecocolordoppler TSA: negativo, ECG: RS morfologia normale, Ecocardiogramma: nella norma, RXTorace esiti di lobectomia sinistra, analisi di laboratorio: lieve ipercolestrolemia, TC encefalo di controllo: lesione ischemica in fase acuta frontale sinistra. Dimessa con: ASA 100mg, Simvastatina 20mg, Enalapril 20mg. Una settimana dopo TC TOTAL BODY di ristadiatione con evidenza di materiale trombotico a livello del moncone della vena polmonare superiore. Veniva sostituita la terapia antiaggregante con terapia anticoagulante (Apixaban 5mgx 2). Al controllo TC torace dopo 3 mesi: n on più presente il materiale trombotico all'interno del moncone della vena polmonare superiore sn.

**Conclusioni:** La trombosi del moncone delle vene polmonari, in esiti di interventi di resezione del polmone, è una evenienza molto rara ma estremamente pericolosa per l'elevato rischio di embolizzazione sistemica. In letteratura sono stati descritti 18 casi, tutti con complicanze (infarti renali, mesenterici e ictus). L'indicazione al trattamento anticoagulante è assoluta.

### West Nile neuroinvasive disease diagnosed in an Internal Medicine ward: our experience

A. Malaspina<sup>1</sup>, M. Pagani<sup>1</sup>

<sup>1</sup>UOC di Medicina Generale, Presidio di Pieve di Coriano, Dipartimento Medico, ASST di Mantova, Italy

West Nile virus (WNV) is a mosquito transmitted flavivirus. Humans are incidental and dead-end hosts. WNV typically causes a flu-like illness that may progress to serious neurological infection (encephalitis, meningitis, acute flaccid paralysis). WNV human infection has been detected in a large area near the Po river. We describe six cases (3 F, 3 M, mean age 80.8 years±9.35) of WNV neuroinvasive disease admitted to our Medicine Ward in the last two years (2015-2016). All cases were from the province of Mantua and appeared during the late summer. The patients suffered of immune system impairment (rheumatoid arthritis, type 2 diabetes, breast cancer, COPD treated with steroids). The onset of the neurological disease was characterized by flu-like symptoms, therefore, there have been many difficulties to perform a diagnosis. The biochemical diagnosis was supported by usual tests (ELISA and PCR) performed on the patient serum while CSF analysis were negative. Neuro-imaging was not helpful because of the paucity and non-specificity of finding. All patients were transferred in state of extremely severe disability to intensive care and in the post-acute phase are admitted in the Rehabilitation Unit with poor outcome. Several factors have contributed to prognosis (the age and comorbidities that can worsen the immune system). Because of poor prognosis and lack of specific treatment,

we underline the importance of the control of WNV infection (virus surveillance, prevention of mosquito bites and local community control programs) in the areas with mosquito's high widespread.

### The choice of antithrombotic therapy in patients with atrial fibrillation admitted in Internal Medicine. Observational and prospective analysis of a monocentric cohort

A. Marnelli<sup>1</sup>, P. Schirru<sup>1</sup>, M. Porru<sup>1</sup>, E. Cianchetti<sup>1</sup>, F. Marongiu<sup>1</sup>

<sup>1</sup>Medicina Interna ed Emocoagulopatie, Cagliari, Italy

**Introduction:** Oral anticoagulants are essential drugs for the prevention of thromboembolic events in patients with atrial fibrillation (AF). The aim of this study was to determine the utilization patterns of anticoagulants with respect to stroke and bleeding risk among patients with AF admitted for overall causes in our internal department.

**Methods:** We performed an observational and prospective analysis designed to evaluate antithrombotic usage for AF in patients admitted in our Internal Department for all causes with AF. The utilization of antithrombotic therapy and the appropriateness of therapy were determined based on CHA2DS2-VASc and HAS-BLED risk stratification schemes. The evaluation of renal and hepatic function and co-morbidities or the presence of documented contraindications was used to determine the choice of appropriate anticoagulation.

**Results:** A NOAC was used in a quarter of all hospitalised AF patients receiving anticoagulant treatment. Factors associated with an increased likelihood of NOAC prescription included a history of bleeding, age  $\geq 80$  years, paroxysmal arrhythmia, hospitalisation due to AF and absence of severe co-morbidities.

**Conclusions:** Several medical variables were associated with prescription of NOAC. Major bleeding, hemorrhagic stroke, and higher glomerular filtration rate were more frequent among patients under NOAC. On the contrary, patients with history of cancer or several compromising of renal function more frequently received VKA.

### Empaglifozin in terapia di associazione aggiuntiva: esperienza in pazienti con diabete mellito tipo 2

M. Manini<sup>1</sup>, A. Amendola<sup>1</sup>, V. De Crescenzo<sup>1</sup>, A. Taccone<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale San Giovanni di Dio, Orbetello (GR), Italy

**Premesse e Scopo dello studio:** Gli inibitori del SGLT2 riducono la glicemia promuovendo l'escrezione del glucosio nelle urine; determinano riduzione del peso corporeo ed empaglifozin riduce il rischio cardiovascolare nei diabetici in prevenzione secondaria. Lo scopo dello studio è stato quello di valutare l'efficacia di empaglifozin aggiunto a metformina e/o insulina, nel ridurre HbA1c, PA e peso corporeo in diabetici di tipo 2 con valori di HbA1c  $\geq 7,5\%$ .

**Materiali e Metodi:** Valutati 32 pz. consecutivi, diabetici di tipo2; età media 63,56 aa; 17 maschi età media di 61,82 aa. e 15 femmine età media di 65,53 aa. Empaglifozin 10 mg è stato aggiunto alla terapia in atto con insulina e/o antidiabetici orali; tutti i pz. assumevano metformina (dose min. 1500 mg/die); 13 (40,62%) insulina e metformina. Valutati HbA1c, PA e peso corporeo all'inizio ed a distanza media di 4,3 mesi.

**Risultati:** L'HbA1c media all'inizio 8,85%; al termine del periodo 7,43% con riduzione media di 1,42 (-16,04%); PAS da 130,78 a 128,90 mmHg (- 1,88 mmHg); PAD da 80,31 a 80,93 mmHg (+ 0,62); il peso corporeo medio da 88,28 a 86,62 Kg (-1,66 Kg).

**Conclusioni:** L'aggiunta di empaglifozin 10 mg alla terapia già in atto con insulina e/o antidiabetici orali ha determinato una modifica dei parametri studiati con riduzione di HbA1c  $>1,4$ ; del peso corporeo di - 1,66 Kg; della PAS di -1,88 mmHg della PAD+0,62, permettendo di ottimizzare la terapia dei pazienti con diabete di tipo 2 particolarmente complessi, ottenendo anche una riduzione del peso corporeo.

### Acute idiopathic eosinophilic pneumonia

C. Marchesi<sup>1</sup>, E. Ricchiuti<sup>1</sup>, M.T. Lavazza<sup>1</sup>, G. Bonardi<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Ospedale di Legnano, UOC Medicina Interna, Legnano (MI), Italy

A 24 year-old South-American man presented to the Emergency Department with abrupt onset of fever (38°C), dyspnea and cough. He was known to have history of smoke (2-3 cigarettes per day) and adenoidectomy. He denied any significant occupational exposure, nor history of sick contact, asthma, allergic rhinitis or recent travel in his own country. He did not take any home medications. On physical examination he was found to rapidly progress to acute respiratory failure; on thoracic auscultation he presented bilateral crackles, expiratory wheezes, and basal hypo-phonia. Lab tests showed acute respiratory alkalosis with hypoxemia (PaO<sub>2</sub> 45 mmHg), leukocytosis (22x10<sup>3</sup>/mm<sup>3</sup>) with eosinophilia (1.2x10<sup>3</sup>/mm<sup>3</sup>, 8.4%). Chest X-ray showed diffuse interstitial hazy infiltrates, resembling pulmonary edema. The patient was treated with CPAP, associated with wide-spread antibiotics. He was further investigated with chest multi-slice high-resolution computed tomography, showing diffuse ground glass opacities, patchy alveolar infiltrates and pleural effusion; bronchoalveolar lavage showed high levels of eosinophils (>53%). Any infectious causes of pneumonia were negative: HIV, Influenza, Legionella p, Pneumococcus, Aspergillus, Pneumocystis j, and blood cultures. Thus, the diagnosis of eosinophilic pneumonia was made: corticosteroid therapy was initiated (1 mg/kg of methylprednisolone, intravenous), with quick improvement; therefore, oral administration of prednisone was started, and tapered off over 3 months. The patient recovered without relapse within 6 months.

### Case report: an unusual case of interstitial lung disease

C. Marchesi<sup>1</sup>, E. Ricchiuti<sup>1</sup>, M.T. Lavazza<sup>1</sup>, G. Bonardi<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Ospedale di Legnano, UOC Medicina Interna, Legnano (MI), Italy

A 72 year-old female presented to the ED with dyspnea, cough and fatigue; the symptoms were gradual in onset, and worsening in the last 3 months. Patient had been treated with antibiotics and corticosteroid, without any improvement. The patient was known for diabetes and hypertension; she denied smoke, none occupational exposure. On physical examination she presented bilateral lung crackles, and widespread expiratory wheezes. Lab tests showed respiratory alkalosis with hypoxemia (PaO<sub>2</sub> 54 mmHg), leukocytosis with neutrophilia (10.9x10<sup>3</sup>/μL, 83%), CRP 11.6 mg/dL. Chest X-ray showed basal left pneumonia, and diffuse reticulonodular interstitial infiltrates. After a short period of bronchodilators, corticosteroids and antibiotics, the patient slightly improved. To investigate the interstitial disease, the patient underwent chest multi-slice high-resolution CT, which confirmed left pneumonia and diffuse ground glass opacities; FDG PET scan confirmed diffuse bilateral lung infiltrates and captation of hilar lymphnodes and in the Baretty lodge (SUVmax 3.2). Quantiferon, autoimmunity, ACE, and tumor markers were normal. The patient underwent bronchoscopy: the cytology examination showed adenocarcinoma G2 (mucus and epithelial cells with alteration in the structure of nuclear chromatin, which appears irregularly clumped); PCR showed EGFR mutation (eson 19). This case shows how bronchoalveolar adenocarcinoma should be kept in the differential diagnosis of patients presenting with interstitial lung disease, in particular when antibiotic and corticosteroid treatments fail.

### Case report: an unusual sequel of pulmonary tuberculosis

C. Marchesi<sup>1</sup>, E. Ricchiuti<sup>1</sup>, M.T. Lavazza<sup>1</sup>, G. Bonardi<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, Ospedale di Legnano, UOC Medicina Interna, Legnano (MI), Italy

A 69 year-old female was admitted to our unit for worsening of general conditions, dyspnea, and persistent dry cough. She was known for past pulmonary tuberculosis (PTB), treated with right pneumothorax and antibiotics. At clinic examination she presented few widespread pulmonary crackles and expiratory wheeze; she was euolemic. Biochemistry showed respiratory alkalosis with hypoxemia (PaO<sub>2</sub> 52 mmHg), leukocytosis with neutrophilia (16.3x10<sup>3</sup>/μL, 88%), CRP 23.9 mg/dL, hyponatremia (plasma Na 123 mEq/L) and hypochloremia; potassium 3.77 mmol/L; plasma osmolality 280 mOsm/kg; urine sodium, osmolality, and specific gravity were found to be raised (290 mmol/24h, 660

mOsm/kg, and >1.050, respectively). Chest X-ray showed apical signs of past PTB on the right side. She underwent chest CT, confirming the signs of past PTB, associated with diffuse ground glass opacities. The patient underwent bronchoscopy, showing a macroscopic faint bleeding, suggesting hemorrhagic alveolitis; the microscopic examination of bronchial lavage fluid showed evidence of *Aspergillus*; as well, plasma galactomannan antigen was positive. Given the hyponatremia associated with euvolemic status, plasma hypo-osmolality with hyperosmolar urine and increased urinary sodium, syndrome of inappropriate secretion of antidiuretic hormone was diagnosed. The patient was started long-term voriconazole and water restriction, with improvement of dyspnea and normalization of natremia. This case provides an example of how PTB may represent an anatomic leading condition to the development of *Aspergillus* infection.

### The role of procalcitonin in Emergency Medicine

A. Marchetti<sup>1</sup>, L. Falsetti<sup>1</sup>, V. Zaccone<sup>1</sup>, M.N. Piersantelli<sup>1</sup>, V. Menditto<sup>1</sup>, T. Gentili<sup>1</sup>, C. Nitti<sup>1</sup>, A. Salvi<sup>1</sup>

<sup>1</sup>SOD Pronto Soccorso e Medicina d'Urgenza, Ospedali Riuniti, Ancona, Italy

**Background:** Pocalcitonin (PCT) could guide antibiotic therapy and evaluate its efficacy. Informations regarding the diagnostic and prognostic role of PCT in the critically ill subject are lacking. Aim of this study was to evaluate the value of PCT in the diagnosis of bacterial infections and its prognostic weight in the unstable patient.

**Methods:** We enrolled 1063 consecutive, critically ill subjects treated in our Emergency Medicine Department in the period 2008-2010, evaluating age, sex, haemodynamic parameters, leucocytes, troponin (Tnl), creatinine and PCT and blood cultures.

**Results:** We observed positive cultures in 375 subjects, whose mean PCT levels were significantly higher than in patients without positive cultures (0.80ng/ml versus 0.20ng/ml;  $p<0.05$ ). ROC curve analysis, however, underlined a sub-optimal value of PCT in predicting a bacterial isolation (AUC: 0.58;95% CI:0.54-0.62). 172 patients died, and their mean PCT values were significantly higher than survivors (2.62ng/ml versus 0.17ng/ml;  $p<0.05$ ). Calculating an optimal cutoff of 0.50ng/ml, mean time without events among subjects with low PCT was 44 days, compared with 26 days observed in patients with high PCT. The prognostic weight of PCT was superior than Tnl, and PCT was correlated with prognosis independently from bacterial infection.

**Conclusions:** Among critically ill patients PCT loses its diagnostic yield. PCT maintains a good prognostic significance in predicting adverse events during the hospitalization particularly when adopted in a model including clinical parameters (age and haemodynamic values)

### Sindrome di Ehlers-Danlos: un raro caso di ischemia intestinale e renale

A. Marchetti<sup>1</sup>, L. Falsetti<sup>1</sup>, M.N. Piersantelli<sup>1</sup>, V. Zaccone<sup>1</sup>, L. Nobili<sup>1</sup>, T. Gentili<sup>1</sup>, C. Nitti<sup>1</sup>, A. Salvi<sup>1</sup>

<sup>1</sup>SOD Pronto Soccorso e Medicina d'Urgenza, Ospedali Riuniti, Ancona, Italy

**Caso clinico:** Un uomo di 52 anni giunge alla nostra osservazione per dolore epigastrico irradiato ai fianchi ed alvo chiuso a feci e gas da alcuni giorni; ipertrofia prostatica all'anamnesi patologica remota. Obiettivamente addome trattabile, non dolorabile, peristalsi vivace; PA 180/100 mmHg. Gli esami ematochimici mostravano leucocitosi neutrofila (WBC 17,95), incremento di troponina I (0,108 ng/ml), D-dimero 1207 (ng/ml), LDH (513 U/l), CPK (1102 U/l), AST (96 U/l) e ALT (120 U/l) ed elevati indici biologici di flogosi (PCR 18,9 mg/dl). La TC addome evidenziava ectasia, dissezione e microaneurismi di tronco celiaco, aa mesenteriche, arcata pancreatico-duodenale ed ileocolica con segni di ischemia intestinale diffusa e lesioni infartuali renali bilaterali per dissezione di vari tratti delle arterie renali. Presente inoltre dissezione dell'arteria carotide interna destra extracranica alla TC vasi epicranici. Negativa risultava la sierologia immunitaria; la ricerca genetica per malattia del collagene confermava la diagnosi di sindrome di Ehlers-Danlos di tipo IV. Il paziente è stato

trattato con eparina ev, antiipertensivi ev con buona risposta clinica e laboratoristica. Dimesso e seguito in regime ambulatoriale con discrete condizioni cliniche, decedeva improvvisamente a sette mesi dalla diagnosi

**Conclusioni:** La S. di Ehlers-Danlos è una malattia ereditaria dovuta ad alterazioni del collagene e del tessuto connettivo con quadri clinici eterogenei. La forma vascolare (tipo IV) è la più grave potendo determinare rottura di grossi vasi e perforazioni viscerali fino all'exitus.

### A rare case of spondylodiscitis due to a Candida infection

C. Marchiani<sup>1</sup>, M. Gagliano<sup>1</sup>, G. Bandini<sup>1</sup>, P. Bernardi<sup>1</sup>, A. Mele<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, N. Palagano<sup>1</sup>, C. Piazzai<sup>1</sup>, G. Ciuti<sup>1</sup>, A. Fabbri<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina ad Alta Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

Spondylodiscitis are infections of the vertebral column that may lead to disability, usually due to *S. aureus*, coagulase-negative staphylococci(50%), *P. aeruginosa* and *E. coli*(20%), *M. tuberculosis*, *B. melitensis*, fungi(2%). Risk factors are immunodepression, diabetes, male sex, age>60. Diagnosis is often delayed because early symptoms (fever, back pain and progressive immobilization) are non-specific. A 66 year's old man was admitted for progressive back pain and immobilization during the last two months. Pain didn't respond to NSAD. He suffered of diabetes, HCV infection, depression, colitis. Physical examination showed significant functional spine limitation for mobility associated with fever (37.5°C). Blood test proved anemia and the increase of ESV (46 mm/h) and procalcitonin (12.69 ng/ml). Blood cultures were negative. Spine radiography didn't show any evidence of pathology. Spine MRI proved hyperintensities in T2 sequences at L3-L4 metamere suspected for infection. We started vancomycin and piperacillin/tazoctam with no improvement and we decided for spinal debridement and stabilization and biopsy of the abscess. The culture was positive for *C. glabrata*. We started a 6 months long therapy with caspofungin obtaining a fast resolution of the symptoms and the patient was finally mobilized without assistance. Back pain is a frequent symptom among adults. Even if the cause of pain is rarely an infection it shouldn't be underestimated especially if there are risks factors and it doesn't respond to common painkillers. Spine MRI can prove lesions not detected by X- rays.

### *Streptococcus bovis*: not only infective endocarditis

F. Marchini<sup>1</sup>, G. Berisso<sup>2</sup>

<sup>1</sup>Medicina Interna, ASL5 Spezzino, PO San Bartolomeo; <sup>2</sup>Medicina Interna, ASL5 Spezzino, La Spezia, Italy

**Background:** *Streptococcus bovis* (*S. bovis*), one of D-streptococci, is involved in 10-15% of infective endocarditis (IE). Since 1974 a link is observed between *S. bovis*, (IE)/bacteriemia and colorectal neoplasm (CN). Now a specific association was found with *S. bovis* type I (*S. bovis* I), IE/bacteremias and CN.

**Case report:** A 77-year-old-man was admitted for low-back pain non responsive to therapies. His clinical history included: backbone arthrosis with disk disease and prior set up of a PM, AAA surgery and endoscopic polypectomy. A total-body TC scan was done: unremarkable; but a whole-body PET scan showed a L3 spondylodiscitis. The blood cultures done in a single fever episode went positive for *S. bovis* (no species identification): the pt underwent antibiotic therapy (ampicillin plus gentamicin); a TTE was normal while a TOE showed an aortic valve mobile vegetation; the pt underwent valve replacement and is now waiting for colonoscopy.

**Discussion:** There are evidences for *S.bovis* I etiological role in CN: it colonizes CN and precancer lesions; its wall proteins and pili are very sticking to colorectal mucosa and endocardium; it leads leukocytes to release inflammatory factors and CN cells to produce mutagenic/inflammatory cytokines, angiogenic factors and to overexpress COX-2.

**Conclusions:** The *S. bovis* I carcinogenetic pathway seems to occur by a transformation from precancer lesions: the detection of *S.bovis* I DNA or IgG antibodies might help in screening CN in these pts in which a 2-4 year follow-up is also suggested as precancer/cancer lesions may appears in this period.

### Acute pancreatitis and acute esophageal necrosis: a possible association

C. Marinucci<sup>1</sup>, F. Zardo<sup>1</sup>, A. Raviolo<sup>1</sup>, M. Gili<sup>1</sup>, S. Gallo<sup>1</sup>, S. Morra Di Cella<sup>1</sup>, M. Porta<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, San Giovanni Battista Hospital of Turin, Italy

**Introduction and Aims:** Acute oesophageal necrosis (AON) is defined by black pigmentation of the oesophagus at endoscopy associated with mucosal necrosis at histology. We propose an association between AON and acute pancreatitis (AP), supposing a relationship between pancreatic enzymes and sphincteric failure.

**Materials and Methods:** Case report and literature analysis.

**Results:** A 86 year-old woman was admitted for epigastralgia, diarrhoea and coffee ground vomitus, with elevated inflammatory indices: amylase 2500U/L, AST 878U/L, ALT 437U/L. A CT-scan showed acute pancreatitis, abdominal fluid and splenic vein thrombosis. Fasting, hydration and antibiotics were started but, two days later, melena, hypotension and oxygen desaturation appeared. Extended AON and gastrectasia were found at endoscopy. The patient died of cardiocirculatory arrest after unsuccessful resuscitation. Gurvits et al. suggested that low-flow due to sepsis, arrhythmias, heart failure, acute pancreatitis, acidosis, hypothermia or shock may lead to AON. Naito et al. observed that trypsin stimulates chemokines and prostaglandins production by oesophageal epithelial cells in gastroesophageal reflux disease.

**Conclusions:** AON is a poorly described condition, with a mortality rate of 13-35%. We suggest a pathogenic role for two toxic effects: direct acid reflux in gastric obstruction and an indirect drop in oesophageal blood flow caused by acid. We hypothesize that increased serum pancreatic enzymes and pancreatic oedema may cause respectively vessel digestion and hypovolemia, resulting in oesophageal damage.

### Un nuovo schema di passaggio dalla terapia classica con prednisone alla terapia con prednisone a rilascio modificato

L.S. Martin-Martin<sup>1</sup>, M. Apa<sup>1</sup>, D. Pierangeli<sup>1</sup>, A. Silvestri<sup>1</sup>, L. Limiti<sup>1</sup>, B. Salvatori<sup>1</sup>, E. Cavallaro<sup>1</sup>, A. Ragno<sup>1</sup>

<sup>1</sup>SC di Medicina Interna, Ospedale "Regina Apostolorum", Albano Laziale (Roma), Italy

**Premesse e Scopo dello studio:** Il valore degli steroidi per il trattamento delle malattie reumatiche è fuori dubbio, ma è anche evidente come la loro assunzione "al risveglio" non sia il metodo ottimale. Il prednisone a rilascio modificato (PRM), è in grado di produrre gli stessi benefici del prednisone classico (PC), ma spesso si verifica una rapida ripresa di malattia nel momento di passaggio alla terapia con PRM, dimostrando che non è possibile lo scambio dei due sistemi di somministrazione mantenendo la stessa dose. Nel nostro studio preliminare proponiamo uno schema di passaggio dal PC al PRM.

**Materiali e Metodi:** 48 paziente affetti da Polimialgia Reumatica o Artrite Reumatoide, in terapia con PC in remissione di malattia con un dosaggio di prednisone di 7.5 mg, sono stati divisi in 2 gruppi. Gruppo A PC è stato sostituito con la stessa dose di PRM. Gruppo B Giorno 1-3: PC2 mg e PRM5 mg; Giorno 4-7: PC1 mg e PRM5 mg; dal Giorno 8: PC0 mg e PRM7 mg. È stato valutato il numero di pazienti che hanno abbandonato la terapia con PRM e ritornato alla somministrazione con PC.

**Risultati:** Nel gruppo A 14 pazienti sono ritornati a PC nei primi 5 giorni per il peggioramento clinico mentre nessuno nel gruppo B. Dei 14 pazienti tornati a PC, 12 erano affetti da PMR e hanno assunto una dose di PC maggiore di quella somministrata al momento dell'inizio dello studio.

**Conclusioni:** Il nostro schema di passaggio della terapia con prednisone dalla formulazione classica alla formulazione "a rilascio modificato" è stato utile nell'evitare le riprese di malattia e nel ridurre gli effetti collaterali legati alla terapia steroidea.

### DEA e sincope neuromediata: oltre la diagnosi

G.P. Martino<sup>1</sup>, S. Girotti<sup>2</sup>, L. Manfredi<sup>3</sup>, D. Benfaremo<sup>2</sup>, G. Bitti<sup>1</sup>

<sup>1</sup>ASUR Marche, Area Vasta 4 Fermo, U.O. Medicina Interna; <sup>2</sup>AOU Ospedali Riuniti di Ancona, SOD Clinica Medica; <sup>3</sup>ASUR Marche, Area Vasta 4 Fermo, U.O. Medicina, Amandola (FM), Italy

**Caso clinico:** Giungeva presso il nostro DEA una studentessa di 17 anni, accompagnata dal 118, per un episodio di breve perdita di coscienza. La paziente era seduta, durante la lezione, quando informava l'amica di sentirsi male e dopo pochi secondi si accasciava sul banco. Veniva distesa a terra in posizione di Trendelenburg con rapida ripresa di coscienza. All'arrivo in PS la P.A. era 95/60 mmHg, la F.C. 74 bpm ritmica, la SatO<sub>2</sub> 99% in aa, l'esame obiettivo generale nella norma e l'ECG mostrava un ritmo sinusale. Si trattava del terzo episodio sincopale ed i primi due erano stati caratterizzati da trauma cranico. La paziente era stata sottoposta recentemente ad esami ematochimici, Tilting test, ecg holter, ecardiografia, ecodoppler TSA, RMN encefalo, EEG. Tutti gli esami risultavano negativi ad eccezione del Tilting test che risultava positivo per ipotensione (80/60), bradicardia (FC 50 bpm) e sincope dopo 10 minuti dall'inizio del test. Alla paziente venivano consigliate generiche misure comportamentali.

**Discussione e Conclusioni:** Le linee guida mancano di elevati livelli di evidenza per la gestione terapeutica di questi pazienti e non sempre vengono forniti dai medici adeguati consigli comportamentali. Il DEA non è il luogo più appropriato per l'educazione terapeutica ed abbiamo indirizzato la paziente alla più vicina sincope unit. Di fronte all'importanza epidemiologica della sincope neuromediata, è opportuno che i DEA affrontino una gestione condivisa della problematica. Ciò potrebbe permettere riduzione di morbilità e costi legati alle sincopi neuromediate.

### Wandering through guidelines and real life

M.A. Marzilli<sup>1</sup>, P. Dellacà<sup>1</sup>, D. Melis<sup>1</sup>, R. Piras<sup>1</sup>, P. Pisano<sup>1</sup>, A. Caddori<sup>1</sup>

<sup>1</sup>SC Medicina Interna, PO SS Trinità, Cagliari, Italy

**Background:** In HCC treatment resective surgery can be carried out in patients unsuitable for liver transplantation; because of high risk of post-operative decompensation it is proposed in well preserved hepatic function (child A) at early stages. Nevertheless in real life we can make decisions upon treatment on clinical features of patients whose are not fully framed in BCLC classification

**Case report:** Male Caucasian sixty patient, hospitalized for anasarca. Affected by hypertension, BMI 34. Blood tests were suggestives of HCV related cirrhosis, genotype 4, HCV-RNA 87109, Child-Pugh C11, biochemis MELD 17. Gastroscopy positive for esophageal varices F2. Ultrasound and CT abdomen suggestive for 7 cm HCC of the VII segment with exophytic development; AFP 1107 ng/ml. The patient was sent to resective hepatic surgery. Three months after surgery the patient showed a Child-Pugh10. In absence of cancer relapse signs, he started antiviral therapy (sofosbuvir 400 mg and daclatasvir 60 mg daily until six months) achieving HCV-RNA undetectable after four weeks. Six months after antiviral treatment Child Pugh B7. Nine months after surgery resection: AFP 4.35 ng/ml.

**Conclusions:** HCC treatment must be established on EBM guidelines, to ensure more appropriate therapies for control of liver disease and survival. In selected patients, mostly in younger, with good performance status and few comorbidities, we should take into account a more aggressive approach compared to that suggested by guidelines considering tumor volume, status of liver disease, age and performance status of patients.

### Burden of atrial fibrillation in patients with spontaneous intracerebral hemorrhage

L. Masotti<sup>1</sup>, F. Moroni<sup>1</sup>, V. Vannucchi<sup>1</sup>, G. Grossi<sup>1</sup>, G. Landini<sup>1</sup>, F. Cellai<sup>2</sup>

<sup>1</sup>Medicina Interna, Santa Maria Nuova, Firenze;

<sup>2</sup>Dipartimento di Informatica e Salute Estar, Toscana, Italy

**Background and Aims:** The use of direct oral anticoagulants (DOACs) in non valvular atrial fibrillation (NVAF)-related acute ischemic strokes (AIS) is controversial due to the lack of evidence in randomized clinical trials. Therefore, the aim of our study were

to analyze the confidence of physicians in prescribing DOACs in this setting from DOACs marketing.

**Materials and Methods:** We reviewed clinical data records of consecutive patients admitted in our wards for NVAF-related AIS.

**Results:** 147 patients, 72,7% females, mean age $\pm$ 83.4 $\pm$ 8.8 years, were admitted in our ward in the analyzed period for AF-related AIS. In-hospital mortality was 10.8%. 98 of NVAF-related AIS patients (69.5%) received DOACs for secondary prevention (76.8% in survivors). Of them 88% received DOACs during hospital stay, whereas 12% received DOACs during ambulatory follow-up. 58% of patients received reduced dose of DOACs. DOACs were prescribed in 62% of NVAF-related AIS in 2014, 67% in 2015 and 88% in 2016. Median time for starting DOACs was 5 days (IQR: 3-8), Median NIH Stroke Scale in patients receiving DOACs was 6 (IQR 3-12). Median modified Rankin Scale (mRS) at hospital discharge in patients receiving DOACs was 3 (IQR 1-4), whereas median 90-days mRS was 2 (IQR 1-3). At 90-days overall mortality in patients receiving DOACs was 2.0%, stroke recurrence was 1%, none patient had major bleedings.

**Conclusions:** Our study demonstrated that physicians are increasingly more confident with their use over the years and the use of DOACs is effective and safe even if started since the acute phase of stroke.

### Un caso di tubercolosi ossea di difficile diagnosi

V. Massa<sup>1</sup>, M.G. Tinti<sup>1</sup>, M.M. D'Errico<sup>1</sup>, A. Mirijello<sup>2</sup>, F.P. Florio<sup>3</sup>, M. Grilli<sup>2</sup>, M. La Viola<sup>2</sup>, S. Curci<sup>2</sup>, G. Serviddio<sup>1</sup>, G. Vendemiale<sup>1</sup>, S. De Cosmo<sup>2</sup>

<sup>1</sup>Scuola di Specializzazione Medicina Interna e Geriatria, Università di Foggia; <sup>2</sup>U.O. di Medicina Interna, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>3</sup>U.O. di Radiologia Interventistica, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG), Italy

**Premesse e Scopo dello studio:** La tubercolosi (TBC), in particolare la forma extrapolmonare, è una patologia riemergente.

**Materiali e Metodi:** Uomo, 67 anni, affetto da BPCO e neoplasia laringea sottoposta a CT+RT. Giungeva alla nostra attenzione per lombalgia e ipostenia arti inferiori. All'ingresso presentava ipotrofia delle masse muscolari e segni di malnutrizione.

**Risultati:** Gli esami ematici evidenziavano flogosi cronica, senza leucocitosi neutrofila. La radiografia torace descriveva diffuso ispessimento interstiziale. Una TC, eseguita nel sospetto di metastasi ossee, mostrava raccolte ascessuali nel contesto del muscolo psoas sinistro. Tale dato è stato sottoposto ad approfondimento con RM del rachide LS che evidenziava ascessi ossifluenti paravertebrali, prevertebrali ed uno in sede epidurale anteriore che comprimeva il sacco durale. Si procedeva, quindi, ad artrodesi, stabilizzazione di D11-L5 e drenaggio delle raccolte ascessuali con evidenza di materiale caseoso. Il quantiferon è risultato indeterminato su due campioni. La PCR per M. tuberculosis è risultata positiva e confermata con l'esame colturale. Si poneva diagnosi di Morbo di Pott.

**Conclusioni:** La TBC è una patologia infiammatoria emergente. Le localizzazioni extrapolmonari sono poco note. Sebbene si tratti di una patologia rara, negli ultimi anni, nei paesi industrializzati, in parte a causa dell'incremento dell'immigrazione dai paesi sottosviluppati ed in parte per l'aumentato numero di individui immunodepressi, si sta assistendo ad un progressivo incremento di osteomielite tubercolare.

### Un caso di condroma temporo-mandibolare

R. Mastriforti<sup>1</sup>, G. Peruzzi<sup>1</sup>, D. Vinattieri<sup>1</sup>, V. Belardini<sup>1</sup>, S. Mercatelli<sup>1</sup>, R. Nassi<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Valtiberina, Sansepolcro (AR), Italy

**Case report:** Uomo di 75 anni, si ricovera per febbre con dolore e tumefazione ingravescente all'articolazione temporo-mandibolare sx, già trattata con levofloxacina. L'esame di TC, poi di RMN evidenziano un esteso e grossolano ispessimento del cappuccio cartilagineo del condilo mandibolare sx con microcalcificazioni e formazioni simil-cistiche interne, intenso ed omogeneo enhancement post-contrastografico, ampia erosione della fossetta glenoidea senza segni evidenti di infiltrazione delle strutture vicine. Il paziente viene sottoposto ad intervento chirurgico nel reparto

di ORL. L'intervento risulta clinicamente radicale. All'esame istologico: proliferazione condroide costituita da lobuli di cartilagine ialina con scarse atipie citonucleari, senza infiltrazione di strutture vascolari, del tessuto osseo del condilo mandibolare e dei tessuti molli. Nel complesso il quadro depone per neoplasia condroide benigna. Al controllo TC effettuato a distanza di uno e tre mesi non sono presenti segni di recidiva o residuo di malattia. Il condroma interessa abitualmente le piccole articolazioni delle estremità e le ossa lunghe. Dalla revisione della letteratura risultano solo 9 casi precedentemente descritti con interessamento di articolazioni come la temporo-mandibolare. Il caso osservato si caratterizza quindi per la rarità, ma anche per l'evoluzione clinica (crescita rapida, aspetto radiologico, febbre persistente) suggestiva per neoplasia maligna, non confermata poi dal dato istologico. Il paziente viene comunque sottoposto a periodico follow-up.

### Educational level as representative of socioeconomic status: correlations with morbidity for chronic obstructive pulmonary disease

C. Mastrobuoni<sup>1</sup>, A. Iardi<sup>1</sup>, A. Russo<sup>2</sup>, C.R. Iardi<sup>3</sup>, A. Grieco<sup>4</sup>, R. Muscariello<sup>5</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>UOC Medicina Interna 3, A.O.R.N. "Antonio Cardarelli", Napoli; <sup>2</sup>Reparto di Lungodegenza, Casa di Cura Alma Mater S.p.A. "Villa Camaldoli", Napoli; <sup>3</sup>Facoltà di Scienze della Formazione, Corso di Laurea in Psicologia: Neuroscienze cognitive, Università Suor Orsola Benincasa, Napoli; <sup>4</sup>U.O.C. di Medicina Interna e Riabilitazione Cardiologica, A.O.U. "Federico II", Napoli; <sup>5</sup>UOC Medicina Interna, Ospedale "A. Maresca", Torre del Greco (NA), Italy

**Background:** The socioeconomic status represents an important risk factor correlated to chronic disease. Nevertheless, few studies have explored the impact of this variable on health outcomes in COPD.

**Materials and Methods:** The purpose of the study is to evaluate the prevalence of COPD, in the Naples area, according to the socioeconomic status: it is considered as an expression of educational level. It has been assessed by a structured interview which explores the level of formal education (ISCED). Until March 2016, the data of 137 patients (68% male, mean age 72.32 $\pm$ 5.2 years) were analyzed. The sample was composed of smokers or former smokers (96%); subjects potentially exposed to passive smoke (63%); patients presenting cardiovascular comorbidities (89%) and metabolic ones (31%). Moreover, some of them (19%) had at least one hospitalization related to COPD in the previous year. Most of them (80%) used at least one bronchodilator (LABA+ICS, LAMA and/or LABA) and 5.8% were in oxygen therapy.

**Results:** The preliminary results of this study suggest that the prevalence of COPD in the Naples area is higher in social classes with low educational level, which in our observation was recorded in 81% of the sample subjects.

**Conclusions:** The life style associated with lower socioeconomic status, (*i.e.* smoking, residence's condition, prenatal exposition, history of repeated respiratory infection) is a possible causative factor onset COPD, as reported by some epidemiological surveys.

### MAGIC syndrome and relapsing polychondritis: case-report

C. Mastrobuoni<sup>1</sup>, R. Buono<sup>1</sup>, F. Gallucci<sup>1</sup>, A. Parisi<sup>1</sup>, M. Schiavone<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>Internal Medicine Dept, Unit 3, Cardarelli Hospital, Napoli, Italy

MAGIC syndrome is an acronym for "Mouth And Genital ulcers with Inflamed Cartilage", a variant of Relapsing Polychondritis (RP), a rare autoimmune disease characterised by a relapsing inflammation of the cartilaginous tissues (joints, ears, nose, intervertebral discs, larynx, trachea and cartilaginous bronchi), which may progress to long-lasting atrophy and/or deformity of the cartilages. Non-cartilaginous tissues may also be affected, such as the eyes, heart, aorta, inner ear and skin. RP has a long and unpredictable course; treatment remains mainly empirical. Life-threatening diseases and corticosteroid-dependent or resistant diseases are an indication for immunosuppressive and biologic drugs. MAGIC patients had generally chondritis and oral aphthous ulcers, as well as ocular inflam-



mation (mainly anterior uveitis or scleritis/episcleritis). Most patients also presented with genital ulcers and arthritis.

**Case report:** A 43-years-old female was admitted because of fever and poly-arthralgia. Anamnesis revealed dizziness, recurrent pharyngitis, otomastoiditis and sinusitis, Bell's palsy and cutaneous bullous lesions with purulent infections at legs and feet. At admission: "hard" inflammatory tissue at auricles, diffuse articular pain, cutaneous, vaginal and oral ulcerative lesions. The patient underwent to an extensive laboratory/instrumental diagnostic work up; biopsy of left auricle and thorax cutis was also performed. High-dose of methyl-prednisolone (1g for 3 consecutive days) was necessary to control symptoms.

### General practitioner-performed compression ultrasonography in the diagnosis of proximal symptomatic deep vein thrombosis of the lower limbs: a multicenter, prospective cohort study

D. Mastroiacovo<sup>1</sup>, N. Mumoli<sup>2</sup>, M. Cei<sup>2</sup>, E. Bucherini<sup>3</sup>, C. Bova<sup>4</sup>, F. Dentali<sup>5</sup>

<sup>1</sup>Angiology Unit, ASL 1 Avezzano Sulmona L'Aquila, Avezzano (AQ);

<sup>2</sup>Department of Internal Medicine, Livorno Hospital, Livorno; <sup>3</sup>Department of Vascular Medicine, ASL di Romagna, Ravenna; <sup>4</sup>Department of Internal Medicine, Azienda Ospedaliera, Cosenza; <sup>5</sup>Department of Internal Medicine, Ospedale di Circolo, Varese; Varese, Italy

**Background:** Patients with suspected deep-vein thrombosis (DVT) of the lower limbs represent a diagnostic dilemma for general practitioners (GPs). The compression ultrasonography (CUS) is universally recognized as the best investigation of choice. After vascular ultrasound training, we assessed the diagnostic accuracy of CUS performed by GPs in the management of symptomatic proximal DVT.

**Materials and Methods:** From May 2014 to May 2016 we prospectively evaluated in a multicenter, prospective cohort study, all the consecutive outpatients with suspected DVT; bilateral proximal lower limb CUS was performed by GPs and physicians expert in vascular ultrasonography, every group blinded with respect to each other. CUS was repeated after 5-7 days in all negative or non-diagnostic exams. Inter-observer agreement and accuracy were calculated.

**Results:** We enrolled a total of 1107 patients; expert ultrasound physicians diagnosed DVT in 200 patients with an overall prevalence of 18.1% (95% CI 15.8, 20.3). The agreement between GPs and expert physicians in DVT diagnosis was excellent (Cohen's  $k$  0.86, 95% CI 0.84, 0.88). CUS performed by GPs had a sensitivity of 90.0% (95% CI 88.2, 91.8) and a specificity of 97.1% (95% CI 96.2, 98.1) with a diagnostic accuracy of 95.8% (95% CI 94.7, 97).

**Conclusions:** Our results suggest that, after adequate training, CUS can be a reliable tool in the diagnosis of DVT, with a good accuracy, even in hands of physicians not expert in vascular ultrasonography. (*ClinicalTrials.gov* NCT02114983)

### Ultrasound elastography: a new technique to distinguish between acute and chronic deep vein thrombosis

D. Mastroiacovo<sup>1</sup>, N. Mumoli<sup>2</sup>, M. Giorgi-Pierfranceschi<sup>3</sup>, M. Mochi<sup>4</sup>, R. Pesavento<sup>5</sup>, F. Dentali<sup>6</sup>

<sup>1</sup>Angiology Unit, ASL 1 Avezzano Sulmona L'Aquila, Avezzano (AQ);

<sup>2</sup>Department of Internal Medicine, Livorno Hospital, Livorno; <sup>3</sup>Emergency Department, Piacenza; <sup>4</sup>GE Healthcare, Italia Spa, Milano; <sup>5</sup>Department of Internal Medicine, Padua University, Padua; <sup>6</sup>Department of Internal Medicine, Ospedale di Circolo, Varese, Italy

**Background:** Ultrasound Elastography (UE) imaging is a novel ultrasound technique for relative quantification of tissue elasticity; its applicability to venous thromboembolic events has not been established. Thus, the aim of this study was to assess the role of UE in distinguishing acute from chronic DVT.

**Methods:** Consecutive patients with unprovoked acute and chronic ( $\geq$ three month) DVT were analyzed; we assessed the accuracy of strain in distinguishing between acute and chronic DVT providing the sensitivity, specificity, positive and negative predictive values and likelihood ratios.

**Results:** 80 patients (mean age 65.6 years, SD 14.2; 41 males) with acute and chronic DVT were included; 116 femoral and popliteal DVT were analyzed. Mean strain value of acute femoral DVT was significantly higher than chronic femoral DVT (4.92 vs 2.62  $p < 0.001$ ) and mean strain value of acute popliteal DVT was significantly higher than chronic popliteal DVT (4.82 vs 2.60  $p < 0.001$ ). Age, sex and thrombus location did not significantly affect the strain value (data not shown). A strain value  $>4$  had a sensitivity of 97.6% (95% CI 85.9, 99.8), a specificity of 94.6% (95% CI 86.0, 98.2), a positive predictive value of 91.1% (95% CI 77.9, 97.1), a negative predictive value of 98.6% (95% CI 91.3, 99.9), and a positive likelihood ratio of 18.06 (95% CI 6.95, 46.9), and a negative likelihood ratio of 0.025 (95% CI 0.003, 0.175).

**Conclusions:** UE appeared a promising technique to distinguish between acute and chronic DVT. Other studies are warranted to confirm our preliminary findings.

### One year of hospitalization in a geriatrics department: scenario analysis

F. Mastroianni<sup>1</sup>, S. Errico<sup>1</sup>, M. Amodio<sup>1</sup>, M. Errico<sup>1</sup>

<sup>1</sup>UOC Geriatria, Ospedale F. Miulli, Acquaviva delle Fonti (BA), Italy

Total admittance of 2016 performed by the Operative Complex of Geriatrics, Hospital "F. Miulli" Acquaviva delle Fonti (BA), were examined. Total admissions were 1046, 547 females and 499 males. 92.7% came from the emergency room (considered urgent admissions), while only 7.3% of cases it was planned admission. 1.6% of admissions were from outside the region. The average hospital stay was 12.4 days and the average weight of 1.1. The most represented pathologies were: heart failure and shock 20%, pulmonary edema and respiratory failure 12%, malnutrition 7%, 6.2% septicemia, pneumonia 7%, cancer 5%, bowel obstruction, anemia, urinary tract infection 3%, bleeding (mainly gastrointestinal) 2%.

**Analysis:** The scenario represented by the admission types configured an overall framework; cardio-respiratory diseases have the prevalence and demonstrate how in the field of chronic exacerbation of cardiac function and the pulmonary bear the brunt of disability. The large representation of clinical conditions has to reflect on the geriatrician necessary skills to be able not only to use diagnostic tools bed-side ultrasound and spirometer, but above all to know guidelines and diagnostic and treatment protocols of different diseases in order to ensure the best possible care to a patient so complex and compressed between comorbidity and polypharmacy.

### Ipercolesterolemia familiare: case report di 22 anni di terapie

F. Mastroianni<sup>1</sup>, M. Errico<sup>1</sup>

<sup>1</sup>UOC Geriatria, Ospedale F. Miulli, Acquaviva delle Fonti (BA), Italy

Un soggetto maschio che, all'età di 26 anni, ha riscontrato un valore di Colesterolo Totale di 419 mg/dl; dopo un regime dietetico i valori erano: Col. Tot. 375 mg/dl, LDL 319 mg/dl, HDL 40 mg/dl, TG 80 mg/dl. In anamnesi si rilevava che il padre era affetto da cardiopatia ischemica (IMA all'età di 48 aa) e ipercolesterolemia e approfondendo le indagini, al propositus, furono riscontrate placche carotidiche bilaterali (25%), arco corneale e xantomati tendinei. La diagnosi fu di Iperlipoproteinemia familiare fenotipo IIA, secondo la classificazione di Fredrickson e pertanto fu avviato a terapia con statine. Dal 1994 al 2004 ha assunto dapprima Simvastatina 20 mg ed in seguito Atorvastatina 80 mg insieme a Colestiramina con una riduzione del Col LDL del 27.5% (231 mg/dl); dal 2004 al 2016 ha sostituito Colestiramina con Ezetimibe 10 mg ottenendo di fatto una stabilizzazione del Col LDL (240 mg/dl). Da Febbraio 2016 a novembre 2016 ha aggiunto Evolocumab 140 mg 1 fl sc ogni 15 gg con una riduzione del Col LDL del 27% (175 mg/dl) rispetto al valore con terapia massimale (Atorvastatina 80 mg+Ezetimibe 10 mg). Pertanto l'aggiunta di Evolocumab (il primo farmaco della classe degli anti PCSK9) ha determinato un'ulteriore riduzione del Col-LDL (peraltro non ancora a target) in un soggetto che oggi, all'età di 48 anni, ha sperimentato l'evoluzione farmacologica delle terapie per le dislipidemie.

### A young man with persistent dyspepsia

M. Mattioli<sup>1</sup>, L. Biondi<sup>1</sup>, M. Cardinali<sup>1</sup>, D. Benfaremo<sup>1</sup>, P. Fraticelli<sup>1</sup>, A. Gabrielli<sup>1</sup>

<sup>1</sup>Clinica Medica, Università Politecnica delle Marche, Ancona, Italy

**Case presentation:** A 26-year-old man was admitted to our department for persistent dyspepsia, started 3 years before admission. In the last months nausea, vomiting and watery diarrhea developed; the symptoms were responsive to proton pump-inhibitors (PPIs). During the last year, he underwent gastroscopy, colonoscopy and computed tomography enterography, that were reportedly negative. On admission, routine laboratory tests were normal, except for elevated chromogranin A and gastrin levels; a mild splenomegaly was present on physical examination. A subsequent bedside abdomen ultrasound revealed the presence of multiple hepatic bilobar ipo-isoechoic lesions and a dishomogeneous ipoechoic solid lesion of the pancreatic body. These findings were confirmed by a subsequent CT scan, that also revealed thrombosis of the portal system. A percutaneous liver biopsy was performed and the histological examination confirmed the suspect of a metastatic pancreatic neuroendocrine tumor (G3).

**Discussion:** Pancreatic neuroendocrine tumors (PNETs) are rare, accounting for about 7% of all neuroendocrine tumors, and in up to 90% of the cases they are silent and non-functional. A diagnostic delay ranging 5 to 7 years is common, despite the availability of modern imaging and biochemical methods. Considering that the incidence increases significantly after the age of 40, our patient was exceptionally young at diagnosis. The history of dyspepsia, one of the most commonly reported symptoms in the western countries, and the widespread symptomatic use of PPIs may have influenced the diagnostic delay.

### Cost-effectiveness of angiotensin receptor blockers in patients with uncomplicated hypertension: a comparative analysis using clinical and drugs utilization data

A. Mazza<sup>1</sup>, S. Lenti<sup>2</sup>, L. Schiavon<sup>1</sup>

<sup>1</sup>Medicina Interna, Rovigo; <sup>2</sup>Medicina Interna, Arezzo, Italy

**Objectives:** The aim of this study was to evaluate the costs and cost-effectiveness of treatment with angiotensin II receptor blockers (ARBs) in essential hypertension and to compare the costs and percentage share of prescription associated with ARBs to reach blood pressure (BP) control.

**Design and Methods:** Costs of the ARBs was estimated based on pharmacy dispensing records and the BP-lowering effects of candesartan, irbesartan, losartan, olmesartan, telmisartan and valsartan was evaluated retrospectively. 114 hypertensives (mean age 59.4±13.5, 57.5% men) taking anti-hypertensive therapy with ARBs, and consecutively referred to our Hypertension Centre from November 2105 to November 2016 has been evaluated. The BP-lowering effect of ARBs used as in monotherapy or combined with hydrochlorothiazide to reach BP control (*i.e.* BP <140/90 mmHg) was analyzed. Office BP was evaluated at baseline and after 6-month of follow-up consulting the medical fields. Analysis of variance for repeated measures was provided.

**Results:** At baseline office BP was not different between ARBs. Treatment with candesartan (7,9% of HTs) and olmesartan (34,5% of HTs) versus other ARBs resulted in a significantly decrease in BP as for mono- than for combination therapy. Cost-effectiveness for olmesartan was estimated at euro 5,466 compared to euro 565,0 for candesartan, respectively.

**Conclusions:** Candesartan was the most favorable option in terms of cost-effectiveness, opening the question if it should be preferred to olmesartan and in to switch these latter to candesartan when BP is uncontrolled.

### Long-term effects of the new direct antiviral agents therapy for HCV-associated to mixed cryoglobulinemia and non Hodgkin lymphomas

C. Mazzaro<sup>1</sup>, M. Endri<sup>2</sup>, L. Quartuccio<sup>3</sup>, M. Gherseti<sup>4</sup>, S. Gitto<sup>5</sup>, P. Casarin<sup>2</sup>, G. Pozzato<sup>6</sup>

<sup>1</sup>Clinical of Experimental Onco-Haematology Unit, CRO Aviano National

Cancer Institute IRCCS, Aviano (PN); <sup>2</sup>Department of Internal Medicine, Pordenone General Hospital, Pordenone; <sup>3</sup>Rheumatology Clinic, University of Udine, Udine; <sup>4</sup>Department of Internal Medicine, Pordenone General Hospital, Pordenone; <sup>5</sup>Department of Internal Medicine and Surgical Sciences DIMEC, University of Bologna, Bologna; <sup>6</sup>Department of Clinical and Surgical Sciences, University of Trieste, Trieste, Italy

**Background and Aims:** The available reports of new direct antiviral agents (DAAs) in HCV-associated Mixed Cryoglobulinemia (MC) and in Non Hodgkin (NHL) are scanty. We prospectively evaluated the long-term efficacy and safety of DAAs in 34 patients with HCV-associated MC and NHL. Twenty five patients received a Sofosbuvir-based regimen and nine other DAAs.

**Results:** The clinical manifestations were: purpura in 19, arthralgias in 17 and peripheral neuropathy in 15 cases. In 4 patients MC observed indolent NHL (marginal zone 2 cases and lymphoplasmacytic 2 cases) and Monoclonal B cell lymphocytosis (MBL) in 2 cases. After four weeks of therapy, undetectable HCV viremia was achieved in all patients and maintained in 97% of cases at twelve months after therapy. The remission of purpura and arthralgias were observed in 79% and in 81% cases respectively at the end therapy and at twelve months after treatment. The same was observed for the neuropathy. In 4 patients with indolent NHL, despite the undetectable HCV-RNA, partial clinical response of vasculitis was obtained; however, no haematological response was observed. Two MBL patients showed no haematological response. The median cryocrit decreased from 3 to 1% and rheumatoid factor (RF) from 111 to 68 IU/l at 6 and 12 months after therapy. Mild side effects occurred in 47% patients, but six patients developed ribavirin-related anemia requiring dose reduction.

**Conclusions:** DAAs are effective and safe for HCV-related MC with overall response rate 80% in clinical response and 97% in virological response with mild side effects.

### L'ambulatorio direct oral anticoagulants nella realtà del Valdarno Aretino

M. Mazzetti<sup>1</sup>, F. Bigazzi<sup>1</sup>, I. Iacomelli<sup>1</sup>, R. Carloni<sup>1</sup>, M. Vitulano<sup>2</sup>, P. Pagni<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Ospedale Monoblocco "La Gruccia", ESTAV toscana SUDEST; <sup>2</sup>CFGM, Firenze, Italy

Da Aprile 2016 (data in cui è stato aperto l'ambulatorio di medicina interna) che ha una parte dedicata ai disturbi della coagulazione l'attività è stata distribuita in base a quanto segue. In totale sono state eseguite 182 prime visite: 68 rinnovi di PT per TEV o FA (pari al 37%) tra i 68 pazienti 12 erano rinnovi per TEV (pari al 18%) e 56 per FA (pari all'82%). Sono afferiti 42 pazienti per valutazione di prescrizione di DOAC in FA (pari al 23%) mentre 72 pazienti (pari al 40%) per prescrizione e presa in carico di terapia in corso di TEV; Tra questi 16 soggetti erano affetti da EP (22%) 56 da TVP (88%). Tra i 72 pazienti 53 (pari al 73%) erano forme unprovoked di TEV mentre 19 (pari al 27%) erano forme di TEV provoked. Tra i pazienti con FA quelli con clearance della creatinina normale vengono rivalutati ambulatorialmente ad un anno, quelli invece con alterazione della clearance, in base anche ad altre comorbidità, vengono rivalutati con una frequenza che varia da caso a caso. Alla prima visita viene indicato ogni quanto effettuare gli esami diagnostici di controllo da parte del MMG che può mettersi in contatto con il medico prescrittore se notasse delle alterazioni. I pazienti con TEV vengono rivalutati ogni tre mesi per il primo anno. Quando la terapia viene sospesa il paziente viene controllato ad un mese e a tre mesi dalla sospensione per valutare il rischio di recidiva e decidere le strategie terapeutiche conseguenti.

### Demographic, clinical, serological features and mortality in patients with systemic sclerosis. A single center experience

S. Mazzuca<sup>1</sup>, S. Giancotti<sup>2</sup>, C. Pintaudi<sup>2</sup>, A.M. Rotundo<sup>3</sup>, R. Cimino<sup>2</sup>

<sup>1</sup>Direttore Medicina Interna, Casa di Cura Villa del Sole, Catanzaro; <sup>2</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>3</sup>P. S.O.C. Medicina Interna, AOPC, Catanzaro, Italy

**Aims:** Aim of this study is to analyze survival, cause of death and prognostic factors in a cohort of patients with SSc and characterize the causes of death.

**Methods:** In a retrospective observational study, 295 (268 F/27

M) SSc patients were registered in our center between 01. 1994 and 12.2014. We carried out a global evaluation of these patients and we registered the following data: age, sex, cutaneous SSc subtype as defined by LeRoy, disease duration (date of first non Raynaud symptom) Patients were divided according extension of cutaneous involvement in Limited subtype (186 patients 63%) and Diffuse subtype (109 patients 37%). The female/man ratio was 9:1. The age of onset of the disease was 43,5±16 years old and the age at diagnosis was 47,61±14,7.

**Results:** 41 patients (13,8%) deceased with mean age 51,6±13,9 years, disease duration 9,51±11,7 years, diffuse subtype 63,4%(26 patients). 18 M/27 (66,6%) vs 23F/268 (8,5%) p<001. Causes of death were pulmonary fibrosis (27,1%), right and left heart failure and PAH(24,4%), infections (14,6%). 7 patients with malignancies (17%), 3 patients with renal crisis (7,23%), 2 patients with gastrointestinal complications (4,8%), and with other causes 4,8%. Survival was significantly affected by older age at diagnosis (p 0,011), male gender (p 0,049), reduced lung volumes and diffusing capacity (p 0,001).

**Conclusions:** In our cohort the leading cause of death in SSc patients was cardiopulmonary complications, followed by malignancies and infections; renal and GIT complications were less frequent.

### The incidence of malignancies in a single cohort of scleroderma and systemic sclerosis patients

S. Mazzuca<sup>1</sup>, C. Pintaudi<sup>2</sup>, S. Giancotti<sup>2</sup>, A.M. Rotundo<sup>3</sup>, R. Cimino<sup>2</sup>

<sup>1</sup>Direttore Medicina Interna, Casa di Cura Villa del Sole, Catanzaro;

<sup>2</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>3</sup>I.P. S.O.C. Medicina Interna, AOPC, Catanzaro

**Aims:** Aim was to assess the association of malignancy in patients with systemic sclerosis from our center.

**Methods:** In a retrospective observational study, 295 (268 F/27 M) SSc patients were registered in our center between 01. 1994 and 12.2014. We carried out a global evaluation of these patients and we registered the following data: age, sex, cutaneous SSc subtype as defined by LeRoy, disease duration (date of first non Raynaud symptom) Patients were divided according extension of cutaneous involvement in Limited subtype (186 patients 63%) and Diffuse subtype (109 patients 37%). The female/man ratio was 9:1.

**Results:** wW identified 7 cancers (2,3%) in 295 patients. The cancer subtype were breast (two patients), Lung (two males, one squamous cell lineage, and one adenocarcinoma), Prostate (one patient), rectum (one patient), one gastric adenocarcinoma (F). 4 (M) and 3 (F) with a median age of 49,6±1,4 years and disease duration of 9,7±1,3 years. 5 patients had a diffuse SSc and 2 a limited SSc. 3 patients were positive for anti-SCL-70 antibodies and 3 patients were positive for anti-RNA polymerase III, one patient (F) was positive for anticentromere antibodies. Patients with breast cancer presented a shorter disease duration compared to those without (median 2,3 vs mean 9,7±1,3 years, p 0,002). All patients had reflux oesophagitis, 5 had an interstitial lung disease, 3 patients received immunosuppressant agents before the occurrence of the cancer, one of patients was smoker.

**Conclusions:** The incidence of malignancy in our study is 2,3%, breast and lung cancer was the most frequent type of cancer.

### Case report of a female patient with the coincidence of systemic sclerosis and Fabry disease

S. Mazzuca<sup>1</sup>, C. Pintaudi<sup>2</sup>, S. Giancotti<sup>2</sup>, A.M. Rotundo<sup>3</sup>, R. Cimino<sup>2</sup>

<sup>1</sup>Direttore Medicina Interna, Casa di Cura Villa del Sole, Catanzaro;

<sup>2</sup>S.O.C. Medicina Interna, AOPC, Catanzaro; <sup>3</sup>I. P. S.O.C. Medicina Interna, AOPC, Catanzaro, Italy

**Case report:** Female patient, 14/09/52 born, in February 1999 was admitted to our medical unit due to cutaneous thickness initiated 3 months before, digital edema with Raynaud's phenomenon, complicated by digital ulcer of the third finger of her right hand. Upon admission, he displayed massive proteinuria, concerning diagnosis, was found the presence of ANA and Anti-centromere antibodies (ACA). Nail fold video-capillaroscopy (NVC) shows a scleroderma pattern active. At admission the 17 sites

Modified Rodnan Skin test was preformed, with a total score of 28 (out of 51). During the clinical course of the disease (SSc) In September 2004 she was admitted to our unit with elevation of specific myocardial biomarkers for myocardial infarction with unaltered coronary arteries at coronarografia. Echocardiogram showed concentric hypertrophy of left ventricle. The patient was subsequently diagnosed with interstitial nephritis based on the findings of light microscopy of an ultrasound-guided percutaneous renal biopsy specimen. Although he received treatment with prednisolone, the interstitial nephritis gradually progressed to renal failure. In July 2012 was performed a screening study for Fabry disease suspected of having Fabry disease because a positive family history (sister) for the condition. The plasma GLA activity in the patient was 1.2 nmol/hour/mL Genetic testing revealed heterozygote L275F mutation in the GLA gene. Enzyme replacement therapy with agalsidase beta (1 mg/kg every 2 weeks) was initiated. Actually the 17 sites Modified Rodnan Skin test was preformed, with a total score of 8 (out of 51).

### A persisting colonic bleeding

A. Mele<sup>1</sup>, P. Bernardi<sup>1</sup>, C. Marchiani<sup>1</sup>, N. Palagano<sup>1</sup>, T. Sansone<sup>1</sup>, C. Piazzai<sup>1</sup>, G. Bandini<sup>1</sup>, M. Gagliano<sup>1</sup>, M. Finocchi<sup>1</sup>, E. Cioni<sup>1</sup>, S. Lunardi<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

An 80 years old woman with a history of hemicolectomy due to perforated colonic diverticulitis was admitted at our medical ward because she was bleeding from her colonostomy. She had diabetes and chronic kidney disease in dialysis stage. Blood tests revealed severe anemia for which she received blood transfusions. A colonoscopy was performed from the stomy showing two big ulcers covered by a fibrin layer. These lesions were suspicious for ischemic colitis and the patient was first treated with cardioaspirin. After a few days without bleeding the patient had an important bleeding from her stomy. Thus, despite her chronic kidney disease, an angio CT was performed showing an edematous thickening of her cecum extending until the ileocecal valve. Because of persisting bleeding an arteriography was performed which revealed an arteriovenous malformation of the cecum. The patient underwent selective embolization of arteriovenous malformation with complete resolution of the bleeding. Arteriovenous malformation (AVM) is an abnormal connection between arteries and veins that bypass the capillary system. Widely known because of its occurrence in the central nervous system, it can appear in any location. Although many AVMs are asymptomatic, they can cause intense pain or bleeding.

### Il Progetto ABPM: percorso di assistenza multidisciplinare per un paziente iperteso

E. Menditto<sup>1</sup>, M. D'Avino<sup>2</sup>, D. Fiorentino<sup>3</sup>, V. Orlando<sup>4</sup>, G. Buonomo<sup>5</sup>, C. Simone<sup>5</sup>, G. Caruso<sup>6</sup>, D. Caruso<sup>7</sup>, G. Uomo<sup>2</sup>, E. Novellino<sup>8</sup>

<sup>1</sup>CIRFF-Dipartimento di Farmacia, Università degli Studi di Napoli

"Federico II"; <sup>2</sup>UOC Medicina Interna 3, Dipartimento Medico

Polispecialistico AORN A. Cardarelli, Napoli; <sup>3</sup>CIRFF Dipartimento di

Farmacia, Università degli Studi di Napoli "Federico II"; <sup>4</sup>CIRFF

Dipartimento di Farmacia Università degli Studi di Napoli "Federico II";

<sup>5</sup>Cooperativa Sannium Medica, Benevento; <sup>6</sup>UOC Pronto Soccorso/OBI;

<sup>7</sup>Dipartimento Medico Polispecialistico; <sup>8</sup>Dipartimento di Farmacia

Università degli Studi di Napoli "Federico II", Napoli, Italy

**Premesse e Scopo dello studio:** L'ipertensione arteriosa è una patologia ad eziologia complessa, che presuppone l'erogazione di cure a lungo termine. Il Progetto di sistema integrato medici di medicina generale (MMG), Farmacie e Specialisti per il controllo pressorio degli ipertesi con metodica ABPM (Monitoraggio Ambulatoriale della Pressione Arteriosa) è proposto come modello di assistenza per implementare la gestione dell'iperteso.

**Materiali e Metodi:** Lo studio ha coinvolto 35 MMG e 22 Farmacie di Benevento. Sono stati arruolati pazienti (PTS), età tra 18 e 65 anni; PA mmHg 149 and/or >99 mmHg (PA >125 and/or >85mmHg se diabetico). Dopo la prima visita, i PTS si sono recati in farmacia per l'applicazione dell'ABPM e nei successivi 6 mesi dal MMG per la misurazione routinaria della pressione arteriosa.

I controlli hanno seguito l'iter senza ABPM. Per tracciare il profilo sanitario del paziente nonché garantire la collaborazione tra i professionisti è stata creata una piattaforma web.

**Risultati:** il progetto è attualmente in corso. In questa fase preliminare sono stati arruolati 608 PTS, di cui 320 uomini e 288 donne. L'età media risulta di 54 anni. Il 57% della coorte è costituito da interventi mentre il 43% da controlli. 211 pazienti intervento hanno effettuato almeno il primo ABPM mentre 146 sono i controlli che hanno completato il percorso delle 6 visite.

**Conclusione:** il monitoraggio della pressione arteriosa attraverso l'ABPM supportata da un team multidisciplinare di professionisti del territorio rappresenterebbe una strategia di implementazione nel *management* dell'iperteso.

### Incidenza e fattori di rischio nella pancreatite post-ERCP, confronto tra una casistica retrospettiva e un braccio prospettico sottoposto a profilassi farmacologica con diclofenac

L. Menicacci<sup>1</sup>, C. Casati<sup>1</sup>, S. Fruttuoso<sup>1</sup>, F. Corradi<sup>1</sup>, R. Innocenti<sup>1</sup>, A. Moretini<sup>1</sup>

<sup>1</sup>AOU Careggi, Firenze, Italy

**Background:** La complicanza più comune in seguito a ERCP è la pancreatite post-ERCP.

**Scopo dello studio:** Analizzare l'incidenza di PEP fra un campione retrospettivo sottoposto ad ERCP senza profilassi e un braccio prospettico sottoposto a profilassi con diclofenac rettale e individuare fattori di rischio indipendenti.

**Risultati:** Il gruppo retrospettivo e il braccio prospettico sono entrambi costituiti da 56 pazienti. L'incidenza della PEP è risultata maggiore nel gruppo non sottoposto a profilassi (8.9% vs 3.6% p 0.43). L'analisi univariata nel gruppo retrospettivo ha evidenziato come statisticamente significativi per lo sviluppo di PEP la categoria ad alto rischio (33.3% vs 100% p 0.0069), l'iniezione del mdc nel Wirsung (13.7% vs 80% p 0.004), il suo incannulamento (13.7% vs 80% p 0.004) e la metodica precut (3.9% vs 40% p 0.03). L'analisi univariata del gruppo prospettico sottoposto a profilassi ha invece evidenziato come questa differenza si annulla per la categoria ad alto rischio (35.2% vs 100% p 0.13) e la metodica precut (3.7% vs 50% p 0.10). L'iniezione del mdc nel Wirsung (7.4% vs 100% p 0.0097) e il suo incannulamento (9.3% vs 100% p 0.0136) si sono confermati fattori di rischio per PEP anche dopo profilassi. Il confronto tra le due popolazioni per l'outcome PEP mediante l'analisi logistica multivariata, ha evidenziato come soltanto il mezzo di contrasto nel Wirsung sia una variabile indipendente per PEP (OR=0.02, CI 95%= 0.002-0.117, p 0.005).

**Conclusioni:** Confermata l'efficacia della profilassi farmacologica ed evidenziato come l'iniezione di mdc nel Wirsung risulti un fattore di rischio indipendente per PEP.

### Aortitis and polymyalgia rheumatica

G. Metrangolo<sup>1</sup>, M. Serra<sup>1</sup>, F. Parente<sup>1</sup>, A. Valiani<sup>1</sup>, A. Fiorentino<sup>1</sup>, E. Calò<sup>1</sup>, M. Serra<sup>1</sup>, G. Castrignanò<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "Vito Fazzi", Lecce, Italy

**Premise and Purpose of the study:** Polymyalgia Rheumatica (PMR) is a disease associated with giant cell arteritis Horton (GCA 15%), characterized by temporal artery involvement. This is a case of PMR associated with an aortitis (thoracic and abdominal aorta and right common iliac artery involvement).

**Materials and Methods:** Female, 58 y.o., previous diagnosis of Basedow disease treated with radioiodine, GERD, Pre-diabetes, anxious-depressive syndrome and PMR. Associated with palpitations and dyspnea from May 2016. The patient underwent cardiologic evaluation and echocardiogram showing right ventricle dilatation and pericardial effusion (partially organized), confirmed by chest CT and MRI of the heart. Increased inflammatory markers (ESR, PCR) were found. During hospitalization a CT-PET was performed, showing hyperaccumulation of radiopharmaceutical in thoracic and abdominal aortic wall, thus in right common iliac artery.

**Results:** The imaging deals with aortic involvement of great arteries vasculitis. The patient was treated with methylprednisolone 250 mg

for 3 days and after with Methylprednisolone 36 mg/day orally, reduced to 12 mg every fortnight and Methotrexate 10 mg/wk, checking the ESR and CRP.

**Conclusions:** The absence of diagnostic criteria for the most common large-vessels arteritis (Horton and Takayasu), the increase of inflammatory markers and the imaging of aortic inflammation prove diagnosis of isolated aortitis, established on an earlier framework of PMR. In this unusual case, are aortitis and PMR manifestations of the same disease or is this a random report?

### PRP in the treatment of skin lesion

M. Montanari<sup>1</sup>, M. Rufo<sup>1</sup>, G. Campagna<sup>1</sup>, D. Campagna<sup>2</sup>, F. Equitani<sup>3</sup>

<sup>1</sup>UOC Medicina Interna, Latina; <sup>2</sup>RSA Pontina, Latina; <sup>3</sup>UOC Medicina Trasfusionale, Latina, Italy

**Background:** Plasma, which is rich in platelets, is an autologous gel obtained from the extraction and centrifugation of blood samples from a patient. PRP is a field of extensive study due to its properties: It favours tissue repair, regulates inflammation and aids in the neoformation of blood vessels. Furthermore, PRP plays a fundamental role in repairing damaged tissue.

**Objectives:** The aim is to perform a study in order to assess its efficacy in the process of repair of wounds. The reason why PRP is used is because it contains numerous growth factors (about 30) which are responsible for skin regeneration, of which: PD.G.F, E.G.F, T.G.F, V.E.G.F, I.G.F 1 and 2, F.G.F. By applying the autologous gel a tissue regeneration process is triggered. The platelets can be thought of as laboratory containers that elaborate and store and, as a consequence, release numerous growth factors capable of stimulating the reproduction of stem cells, fibroblasts, osteoblasts and endothelial cells.

**Materials and Methods:** We assess patients coming to the local ambulatory clinic / UOC of internal medicine.

**The protocol requires the following procedure:** The patient's medical history, clinical evaluation of the patient's skin condition and a photo, clinical application (inclusion and exclusion criteria), blood sampling, quality and sterility test.

The patient's general details and characteristics of the PRP will be recorded in appropriate forms.

**Conclusions:** The final objective of this study is to: 1) Determine guides lines with a detailed procedure. 2) Initiate controlled clinical trials.

### Procalcitonin as a marker of pancreatic neuroendocrine tumor

I. Morana<sup>1</sup>, M. Bonaccorso<sup>1</sup>, M. Callea<sup>1</sup>, D. Morana<sup>2</sup>, C. Di Mauro<sup>1</sup>, C. Virgillito<sup>1</sup>, S.A. Neri<sup>1</sup>

<sup>1</sup>Medicina Interna Area Critica, ARNAS Garibaldi, Catania; <sup>2</sup>Trainee, Medicina Interna Area Critica, ARNAS Garibaldi, Catania, Italy

We describe a case of procalcitonin increase without sepsis. Procalcitonin (PCT) is a precursor protein of calcitonin that is normally produced by thyroid and neuroendocrine cells. It is widely known as a biomarker for bacterial infection but an increase in serum PCT levels can be also seen in aseptic situation. We suspect that this increase is due to a PCT-secreting pancreatic neuroendocrine tumor (pNET). In December 2016 a 48-years-old male, smoker, with ulcerative colitis (UC), presented to our hospital for 3-4 evacuation without blood and mucous, postprandial acute abdominal pain, dyspepsia for probable flare of UC. Colonoscopy result: UC mild activity endoscopic (MAYO 1). Laboratory results showed an elevated C-reactive protein, Fecal Calprotectin and Procalcitonin (over 100 ng/ml). After the CRP is normalized, the procalcitonin remains very high and persisting abdominal pain has performed abdominal CT that showed pancreatic cancer and liver mts. Onco-Markers: major increase CA19.9, CEA, TPA, ACTH, Insulin, Glucagone, PTH, Gastrinemia, Thyroid hormones is normal. Calcitonine over 2000 pg/ml. Biopsy specimens showed hepatic lesion with poorly differentiated atypical cells CK7 +, CK20 +/--. The patient had been sending to the oncology for new therapy. This case is very important because the increase of PCT at first was related to the flare of ulcerative colitis. In reality the Tc showed a Pancreatic Neuroendocrine Tumor.

### Prospective observational study to assess the chronic obstructive pulmonary disease prevalence in the population of family physicians group. Study design

I. Morana<sup>1</sup>, M. Bonaccorso<sup>1</sup>, M. Callea<sup>1</sup>, D. Morana<sup>2</sup>, C. Di Mauro<sup>1</sup>, S.A. Neri<sup>1</sup>, C. Virgillito<sup>1</sup>

<sup>1</sup>Medicina Interna Area Critica, ARNAS Garibaldi, Catania; <sup>2</sup>Trainee, Medicina Interna Area Critica, ARNAS Garibaldi, Catania, Italy

Chronic obstructive pulmonary disease (COPD) is currently a major public health problem and is one of the major causes of morbidity and mortality worldwide. To improve the prognosis and management of the disease it is necessary to make an early diagnosis in stages I-II GOLD intercepting patients with unknown disease, as medicine initiative. The optimal care setting for an early diagnosis is the general practice, using a simple questionnaire and a baseline spirometry with an innovative spirometer miniaturized. For this we started a Observational, prospective Study with a 12-month follow-up on the population (50/75 years old) assisted by twenty general practitioners of the Catania within three months to access for any reason to the doctor's office, to evaluate the incidence of COPD in patients at risk but not known. Each physician, well trained prior to use of the spirometer, will select 20/25 patients smoking and/or shortness of breath with filling out a brief medical history sheet and of these patients will perform spirometry to assess FEV1. Patients with reduced FEV1 will be sent to a level II clinic to perform a complete spirometry with reversibility testing, filling out additional anamnestic card (exposure factors to fumes, occupation, smoking, year package number, other comorbidities, PA blood, fc, peripheral saturation O2, mMRC questionnaire). The aim of this study is to determine whether you can identify by the general practitioner subjects with COPD suspected but not known, smokers and non-smokers and/or symptoms (cough and dyspnea), using a spirometer miniaturized and mMRC questionnaire.

### Venous thromboembolism and May-Thurner syndrome

I. Morana<sup>1</sup>, M. Bonaccorso<sup>1</sup>, M. Callea<sup>1</sup>, C. Di Mauro<sup>1</sup>, D. Morana<sup>2</sup>, S. Neri<sup>1</sup>, C. Virgillito<sup>1</sup>

<sup>1</sup>Medicina Interna Area Critica, ARNAS Garibaldi, Catania; <sup>2</sup>Trainee, Medicina Interna Area Critica, ARNAS Garibaldi, Catania, Italy

May Thurner syndrome (MTs) or iliac vein compression syndrome is due chronic compression of the iliac vein against lumbar vertebrae by the overlying right common iliac artery and is associated with deep vein thrombosis (DVT) and pulmonary embolism (EP). This variant has been shown to be present in over 20% of the population, but it is rarely considered in the differential diagnosis of DVT especially if present other risk factors. We describe a case of a young woman of 24 years, two months in therapy with an oral contraceptive, with pain and edema in his left leg by two days. The venous doppler ultrasonography showed DVT iliofemorale and it was treated with enoxaparin 6000 UI twice daily. In second day in hospital onset of chest pain, dyspnea and increase of d-dimer. For this has performed angiography to chest, abdomen and lower limbs with confirmation DVT iliofemorale, pulmonary embolism and compression of the left iliac vein by the overlying right common iliac artery. Negative tests for thrombophilia. Subsequently performed oral anticoagulant therapy and three months later it was applied with successful stent placement in the area that was compressed and no recurrence of DVT in the ensuing 12 months. This case demonstrates that the May Turner syndrome should be considered in the differential diagnosis when we have an unprovoked DVT or unknown cause.

### Web-based collection of educational needs in an Internal Medicine Department

L. Morbidoni<sup>1</sup>, M. Correani<sup>2</sup>, M. Candela<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina, Area Vasta 2, ASUR Marche; <sup>2</sup>Centro Elaborazione Dati, Area Vasta 2, ASUR Marche, Italy

**Introduction and Aims:** Few evidences about methods to harvest educational needs by health care professionals in internal medicine have been published. In this project the following objectives

have been pursued: 1. to express preferences by each health care worker; 2. to evaluate the efficacy of an intranet-based survey in order to structure Continuing medical education (CME) planning. **Materials and Methods:** We created a form based on 7 questions, exploring the following areas: knowledge, know-how, communication, transversal competencies. This survey, implemented on a google drive platform, was accessible through the Azienda Sanitaria Unica Regione Marche (ASUR) intranet. Each Questionnaire was analyzed with google drive and the results were discussed within Internal Medicine Department Committee.

**Results:** 103/228 health care workers responded to the survey. On the basis of health care workers preferences, financial resources, relevance, untreated topics in the previous 5 years and congruence with ASUR targets, heart failure, malnutrition and non-invasive mechanical ventilation were chosen as main topics for the year 2017 and practical training, internal courses and focus groups were planned.

**Conclusions:** A relevant percentage of health care workers (45%) responded to our online survey and the analysis of the results has been used for planning users-centered educational courses; this approach represents a sure novelty in failure of published experiences about the relationship between collection of needs and CME planning.

### A case of primary thrombectomy for high risk acute pulmonary embolism: the future first line treatment?

P. Morella<sup>1</sup>, G. Ferro<sup>2</sup>, M. Sacco<sup>3</sup>, M. Carafa<sup>1</sup>

<sup>1</sup>UO Medicina d'Urgenza, AORN Cardarelli, Napoli; <sup>2</sup>UO PS/OBI, AORN Cardarelli, Napoli; <sup>3</sup>UO Medicina d'Urgenza, AORN Cardarelli, Napoli, Italy

**Case presentation:** F.P. Man 72 years, smoker, suffering from hypertension in drug treatment comes to ER after syncope. The patient presents hypoxemia, tachycardia and hypotension with dilation and hypokinesia of the right ventricle and PAPS of about 80 mmHg. CT pulmonary angiography evidences massive pulmonary embolism. The patient underwent rheolytic thrombectomy as first line treatment. After the procedure the patient was transferred to the ward with stable hemodynamic parameters, reduction of dyspnea and echocardiographic parameters improvements. At the CT angiography the pulmonary arterial thrombosis was significantly reduced.

**Discussion:** This is a typical case of High Risk Pulmonary Embolism. According to the ESC guidelines the therapy of choice in this case is the thrombolytic treatment with alteplase 100 mg in 2 h or 0.6 mg/kg in 15 minutes. Alternative treatments should be considered only in case of failure or contraindication to thrombolysis. Nevertheless, the percutaneous thrombectomy, in our case, has proved safe and effective as first line treatment.

**Conclusions:** The choice of percutaneous thrombectomy may be a safe and highly effective than pharmacologic treatment, not always resolute and potentially burdened by possible severe side effects such as major bleeding. Primary percutaneous thrombectomy can be proposed as a first line treatment in case of high risk EP, reserving the thrombolytic treatment to cases where it can not be promptly performed exactly as in the case of acute coronary syndrome. Further studies are needed to establish the right timing scheme.

### Un caso di tromboembolismo venoso: quando la diagnosi etiologica fa la differenza

P. Morella<sup>1</sup>, M. Di Palo<sup>1</sup>, L. Guadagno<sup>2</sup>, A. Magliocca<sup>2</sup>, M. Sacco<sup>1</sup>

<sup>1</sup>UO Medicina d'Urgenza, AORN Cardarelli, Napoli; <sup>2</sup>AOU Federico II, Napoli, Italy

**Caso clinico:** Uomo di 55 anni viene ricoverato per TEV complicato da multipli infarti polmonari e splenici (diagnosi di altra struttura). Durante il ricovero si evidenziano piastrinopenia, allungamento di aPTT (64") e PT INR (2,01), positività per LAC (screening e test di conferma), elevati valori di ACA e  $\beta_2$ GP1. Si dimette con diagnosi di "TEP complicante TVP femoro poplitea destra. Sindrome da anticorpi antifosfolipidi (APS)", terapia cortisonica e dicumarolica ed indicazione a follow-up presso il nostro ambulatorio del TEV. Dopo alcune settimane, in concomitanza con

la progressiva riduzione della terapia steroidea, compare febbre intermittente, farmacoresistente. Rivalutato in ricovero ospedaliero: screening infettivologico negativo, positività per AMA, ANA ed ENA (sottotipo SSA, SSb, Jo1-AntiSCL) assenti in tutti i precedenti controlli. Si pone diagnosi di Connettivite Indifferenziata complicata da APS e TEV secondario; si prescrive terapia immunosoppressiva (idrossiclorochina). Attualmente il paziente è in pieno benessere, e prosegue il follow up presso il nostro ambulatorio.

**Conclusioni:** Le patologie del connettivo esordiscono talora con un evento di TEV anche in assenza di sintomi "specifici", rispetto ai quali possono anticiparne la comparsa. La corretta gestione del TEV deve includere lo screening per l'autoimmunità (sia in fase acuta che in follow-up), in particolare nelle forme apparentemente "unprovoked", allo scopo di avviare terapia eziologica mirata.

#### Acid-base balance: a little bit of "acid" does not hurt

L. Moriconi<sup>1</sup>, S. Ferretti<sup>1</sup>, G. Manna<sup>1</sup>, M. Martini<sup>1</sup>, A. Paciaroni<sup>1</sup>, A. Tarasi<sup>1</sup>, F. Montella<sup>1</sup>

<sup>1</sup>Medicina Interna IV, AO San Giovanni Addolorata, Roma, Italy

An 87 years old woman was admitted in our Internal Medicine ward because of type II respiratory failure, painful abdominal syndrome and vomiting. Clinical history showed atherosclerotic and hypertensive heart disease, permanent atrial fibrillation (AF), multi-infarct encephalopathy with cognitive impairment, previous left mastectomy for malignancy; she was on treatment with diuretics, beta blocker and direct oral anticoagulant. On examination, the patient appeared mild confused and lethargic, with diffuse abdominal tenderness. EKG showed AF with average ventricular rate of 70 bpm. Arterial Blood Gas sample (ABGs) in room air showed pH 7.45 HCO<sub>3</sub><sup>-</sup> 40.5; pCO<sub>2</sub> 58,7 pO<sub>2</sub> 53,6; Na<sup>+</sup> 111; K<sup>+</sup> 2,9; Cl<sup>-</sup> 68; other laboratory tests were normal. A total body CT scan revealed only small bilateral pleural effusion. The echocardiogram showed a mild reduction of ejection fraction with mild global depression of the kinesis, without clear focal deficits. Upper gastrointestinal endoscopy revealed antral gastritis. Colonoscopy was not performed because of lack of consent of the patient. She was initially treated with intravenous infusion of electrolytes, reduction of diuretics and proton pump inhibitor achieving little improvement in clinical and laboratory parameters. Then a careful re-evaluation of her eating habits showed a psychogenic polydipsia so we reduced her oral water intake and rapidly the patient showed disappearance of vomiting, with a great improvement in the space-time disorientation framework. Also ABGs and electrolytes gradually returned to normal values.

#### Management of acute cardioembolic ischemic stroke in the era of direct oral anticoagulants: a real world single centre study

F. Moroni<sup>1</sup>, L. Masotti<sup>1</sup>, V. Vannucchi<sup>1</sup>, R. Chiarelli<sup>1</sup>, C. Seravalle<sup>1</sup>, A. Pesci<sup>1</sup>, F. Pallini<sup>1</sup>, S. Puliti<sup>1</sup>, S. Spolveri<sup>2</sup>, G. Landini<sup>1</sup>, M. Paciaroni<sup>3</sup>

<sup>1</sup>Medicina Interna, Santa Maria Nuova, Firenze; <sup>2</sup>Medicina Interna, Borgo San Lorenzo (FI); <sup>3</sup>Stroke Unit e Divisione di Medicina Cardiovascolare Università di Perugia, Italy

**Background and Aim:** The use of direct oral anticoagulants (DOACs) in non valvular atrial fibrillation (NVAF)-related acute ischemic strokes (AIS) is controversial due to the lack of evidence in randomized clinical trials. Therefore, the aim of our study were to analyze the confidence of physicians in prescribing DOACs in this setting from DOACs marketing.

**Materials and Methods:** We reviewed clinical data records of consecutive patients admitted in our wards for NVAF-related AIS. **Results:** 147 patients, 72,7% females, mean age±83.4±8.8 years, were admitted in our ward in the analyzed period for AF-related AIS. In-hospital mortality was 10.8%. 98 of NVAF-related AIS patients (69.5%) received DOACs for secondary prevention (76.8% in survivors). Of them 88% received DOACs during hospital stay, whereas 12% received DOACs during ambulatory follow-up. 58% of patients received reduced dose of DOACs. DOACs were prescribed in 62% of NVAF-related AIS in 2014, 67% in 2015 and 88% in 2016. Median time for starting DOACs was 5 days (IQR: 3-8), Median NIH Stroke Scale in patients receiving DOACs was 6 (IQR 3-12). Median modified Rankin Scale (mRS) at hospital

discharge in patients receiving DOACs was 3 (IQR 1-4), whereas median 90-days mRS was 2 (IQR 1-3). At 90-days overall mortality in patients receiving DOACs was 2.0%, stroke recurrence was 1%, none patient had major bleedings.

**Conclusions:** Our study demonstrated that physicians are increasingly more confident with their use over the years and the use of DOACs is effective and safe even if started since the acute phase of stroke.

#### A rare case of seizure and cerebral oedema at computed tomography; "The cerebral amyloid angiopathy-related inflammation syndrome"

F. Moroni<sup>1</sup>, L. Guerrini<sup>2</sup>, L. Masotti<sup>1</sup>, V. Vannucchi<sup>1</sup>, A. Pesci<sup>1</sup>, F. Pallini<sup>1</sup>, G. Landini<sup>1</sup>

<sup>1</sup>Medicina Interna, Santa Maria Nuova, Firenze; <sup>2</sup>Radiologia, Santa Maria Nuova, Firenze, Italy

**Background:** Cerebral amyloid angiopathy related-inflammation (CAA-RI) is a recently radiologically identified syndrome of reversible encephalopathy. It affects elderly patients in which amyloid peptides are deposited in the walls of cerebral artery leading to inflammation, macro and micro-hemorrhages. Improvement has been reported with corticosteroid therapy.

**Case report:** An 83 year old male with a medical history of hypertension and diabetes mellitus type 2 and with some cognitive impairment observed in the last two weeks was admitted to Emergency Department because of tonic-clonic seizures with loss of consciousness, urinary incontinence and metabolic acidosis. Brain CT scan showed frontal parietal and temporal lobe white matter hypo density. At brain MRI diffuse vasogenic edema, especially in the left hemisphere, with sign of inflammation without contrast enhancement was detected in a gradient echo MR procedure. Disperse microbleeds were detected in the left subcortical regions. The CSF was clear but with a small increase of protein content (0.82 mg/dl). A CAA-RI was suspected and the patients was placed under Prednisone treatment (50 mg/day).

**Conclusions:** The case we report had a typical CAA-RI presentation with initial rapidly progressing cognitive impairment and seizures in an old male. MRI showed white matter edematous changes with no contrast enhancement. A significant clinical and radiological improvement with marked edema reduction was observed after a period of 45 days of steroid treatment.

#### A clinical case of meningoencephalitis as onset of Sjögren's syndrome

G.T. Murgioni<sup>1</sup>

<sup>1</sup>Department of Medical Sciences "M. Aresu", University of Cagliari, Italy

A 57 year old man with a recent history of infection with cytomegalovirus was hospitalized after a few days of the onset of fever with 39 ° C serotine peak and the state of mental confusion with sudden aphasia and secondary generalization. Serological and instrumental examinations reveal the diagnosis of meningoencephalitis without evidence of the causative agent to blood tests and CSF. The therapy performed was based on anti-epileptic drugs. After a week, the patient showed an itchy maculopapular rash extended to the whole soma associated with altered liver tests, likely related to the introduction with the antiepileptic, oxcarbazepine and antipyretic therapy, paracetamol. During the hospitalization, the blood examination showed increased markers for inflammation, ANA and SSA positive high titer. The medical scans present a picture of diffuse interstitial lung disease on HRCT scans of the chest and functional deficits of the parotid and submandibular glands on scintigraphy of the salivary glands. According to the diagnostic criteria, it was possible to discharge the patient with the diagnosis of Sjogren's syndrome with interstitial lung and meningoencephalitis. The set therapy with corticosteroids has been successful.

#### Is it enough the non-invasive diagnosis of hepatocellular carcinoma?

R. Muscherà<sup>1</sup>, G. Di Monda<sup>1</sup>, A. Ilardi<sup>1</sup>, M. D'avino<sup>1</sup>, F. Capasso<sup>1</sup>, E. Anastasio<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>Division of Medicine 3, Medical Department Hospital, A.O.R. N. A. Cardarelli, Naples, Italy

**Case report:** 72 y.o. F patient affected by HCV positive chronic liver disease. She hospitalized for mild fever along with fatigue, bone pain and anemia. Presence of monoclonal protein framework component at urinary immunofixation positive for Kappa light chains. Multiple liver nodular formations, non-homogeneous, hypoechoic at abdominal ultrasound. At Total body scan there are medium multiple nodular lesions of the liver with a diameter between 7 and 70 mm spread out across all segments, hypervascularizing in arterial phase and hypodense in the parenchyma time with capsule device to report for multicentre hepatocellular carcinoma (HCC). Splenomegaly with Hypodense lesion characterized by increased 30x37 mm rear margin by secondary appearance. Multiple osteolytic metastatic lesions of low back and pelvis lumbar metamer. The presence of monoclonal component, the negativity of alpha-fetoprotein and the clinical picture to perform a FNAB out of a hepatic lesion showing: mature and immature plasmacells aggregates in the liver replacing in multiple point the parenchyma. The neoplastic elements showed CD 138 and Kappa chains positivity compatible with Kappa chains expression myeloma.

**Conclusions:** The 2010 AASLD guidelines indicate the execution of the biopsy only in the presence of injuries not features to HCC. This clinical case suggest that non-invasive diagnosis for hepatocellular carcinoma is sometimes not enough and that in these cases we should turn to biopsy. We believe that it is not always enough radiological diagnosis if there is clinical and instrumental suspects to doubt the diagnosis of HCC

### L'importanza del potassio nei meccanismi di omeostasi dell'organismo: un caso di acidosi tubulare renale prossimale "Fanconi's like"

O. Nannola<sup>1</sup>, F. Cataldi<sup>1</sup>, C. De Martino<sup>1</sup>, M. Di Palo<sup>1</sup>, R. Fiandra<sup>1</sup>, I.M. Gelsomino<sup>1</sup>, M. Giordano<sup>1</sup>, E.M.R. Ito<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Caso clinico:** Si ricovera con diagnosi di acidosi metabolica e ipokaliemia donna di 48 anni. In anamnesi: tratto  $\beta$ -talassemico e pregresso (vari anni prima) trauma cranico. Negli ultimi giorni comparsa di dolori muscolari. Negato l'uso di prodotti ipokaliemizzanti, riferita solo singola assunzione di arnica. La paziente è sofferente per la sintomatologia dolorosa agli arti di tipo crampiforme. L'Eab mostra: pH 7.29, Na 136 mmol/Lt, K 1.6 mmol/Lt, HCO<sub>3</sub> 15.4 mmol/Lt, Cl 111 mmol/Lt con anion gap calcolato a 10 (acidosi metabolica ipercloremica ad anion gap normale). Si riscontrano: aumento di Cpk e mioglobina (rispettivamente 1089 u/Lt e 1253 ng/ml), modica anemia, ipofosforemia (1.1 mg/dl), ipouricemia (1.1 mg/dl). Nella norma assetto ormonale, screening per le paraproteinemie, tc torace-addome, Rmn encefalo. Il decorso successivo si complica per difficoltà respiratoria e alterazione dello stato di coscienza, con necessità di ricovero in Rianimazione e successivo lento recupero. Viene formulata diagnosi di verosimile acidosi tubulare renale tipo Fanconi complicata da grave ipokaliemia.

**Discussione:** Il caso presentato è emblematico delle difficoltà nell'inquadramento diagnostico di patologie infrequenti come le acidosi tubulari, in cui il "primum movens" può restare indeterminato. Anche in senso terapeutico si possono incontrare difficoltà per i possibili gravi squilibri metabolici. Le difficoltà nella correzione dell'ipokaliemia e le complicanze respiratorie e neurologiche evidenziano il ruolo del potassio intracellulare nei meccanismi di omeostasi dell'organismo.

### Un caso di feocromocitoma maligno

R. Nassi<sup>1</sup>, V. Belardini<sup>1</sup>, C. Vezzosi<sup>2</sup>, G. Peruzzi<sup>1</sup>, D. Vinattieri<sup>1</sup>, R. Mastriforti<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Valtiberina, Sansepolcro, (AR); <sup>2</sup>Dipartimento di Medicina Specialistica, Sez. Endocrinologia, Arezzo, Italy

**Case report:** Paziente di 78 anni, iperteso, nel 2005 rilievo di massa surrenalica dx con diagnosi biochimica di feocromocitoma, confermata all'istologia dopo surrenectomia destra. Negativo

l'esame genetico per proto-oncogene RET e altre forme familiari. Dopo l'intervento apparente remissione della malattia. Alcuni anni dopo emicolectomia sinistra per tumore del colon, in corso di follow-up rilievo di lesioni epatiche secondarie sottoposte a biopsia con inattesa diagnosi di feocromocitoma. La scintigrafia con metaiodobenzilguanidina non mostrava captazione in regione epatica, presente invece alla PET con 18FDG. A distanza di 4 anni, quadro clinico stazionario. Il feocromocitoma è un tumore raro delle cellule cromaffini del surrene o dei paragangli caratterizzato dalla produzione di catecolamine. Tra i feocromocitomi le forme maligne sono molto rare (10-20%), vengono definite dalla presenza di tessuto cromaffine in sedi inappropriate e sono più spesso associate a masse surrenaliche voluminose o a particolari mutazioni genetiche (SDHB). Le sedi più frequenti di metastasi sono linfonodi, ossa, fegato e polmoni ed i sintomi possono essere legati alla secrezione di catecolamine. La prognosi del feocromocitoma maligno è generalmente infausta, (anche se esistono casi con sopravvivenza oltre 10 anni), anche a causa delle terapie disponibili, scarsamente efficaci e con tossicità importante. La terapia è indicata solo nei casi in evidente progressione o con sintomi specifici, in alternativa può essere adottata una condotta di tipo "wait and see" come nel caso di questo paziente.

### Success rate of adrenal vein sampling with intraprocedural cortisol measurement in patients with primary aldosteronism: a single center experience

A. Negro<sup>1</sup>, R. Santi<sup>1</sup>, G. Gemelli<sup>2</sup>, L. Vecchia<sup>3</sup>

<sup>1</sup>Internal Medicine and Hypertension Unit, IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>2</sup>Radiology Unit, AO Santa Maria Nuova, Reggio Emilia; <sup>3</sup>Laboratory of Endocrinology, AO Santa Maria Nuova, Reggio Emilia, Italy

Primary aldosteronism (PA) is the most frequent cause of secondary hypertension. It may be caused by unilateral forms (aldosterone-producing adenomas) or bilateral adrenal hyperplasia. Adrenal venous sampling (AVS) is the gold standard for differentiating unilateral from bilateral PA. Previously, we demonstrated that the intraprocedural cortisol measurement (IPCM) increases the success rate of AVS by enabling resampling during the same procedure (Rossi et al. Am J Hypertens 2011;24(12):1280-1285). Indeed, the final rate of bilateral selectivity was higher than an historical series (HIS) without IPCM, whereas bilateral selectivity in the first set of samples was not different from HIS. We report the AVS series updated to December 2016. The same radiologist (G.G.) performed all the procedures. AVS was considered selective if the adrenal vein-to-external iliac vein cortisol ratio was  $\geq 5$ . Unilateral PA was diagnosed whether the ratio of cortisol-corrected aldosterone concentration between the dominant and nondominant side (lateralization index, LI) was  $>3.5$ . The final rate of bilateral selectivity is 98% (92% at 2011). The bilateral selectivity in the first set of samples is now 91% (76% at 2011). The LI resulted  $>3.5$  in 38% of patients. Our updated series confirms the high success rate of AVS with IPCM, further increased regarding the 2011's data. The higher rate of bilateral selectivity in the first set of samples is mostly imputable to increased expertise of the same devoted radiologist and the high number of AVS/year. AVS should be performed at centers with high number of AVS and dedicated radiologist.

### A case of apparently acquired Gitelman's syndrome, presenting as hypokalemic paralysis, due to peptide receptor radionuclide therapy

A. Negro<sup>1</sup>, D. Nicolì<sup>2</sup>, R. Santi<sup>1</sup>, A. Versari<sup>3</sup>, E. Farnetti<sup>2</sup>

<sup>1</sup>Internal Medicine and Hypertension Unit, IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>2</sup>Molecular Biology Laboratory, IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>3</sup>Unit of Nuclear Medicine, IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

Gitelman's syndrome, autosomal recessive tubulopathy caused by inactivating mutations of *SLC12A3* gene, is characterized by hypokalemia, high urinary potassium excretion, metabolic

alkalosis, hypomagnesemia, hypocalciuria and secondary hyperaldosteronism. The clinical manifestations ranged from asymptomatic subjects to severe hypokalemic paralysis and life-threatening ventricular arrhythmia. Peptide receptor radionuclide therapy (PRRT) has nephrotoxicity (increase of creatinine) from 2 to 34% of patients. Isolated tubular dysfunctions were not reported. A 76-year-old man with ileal NET and liver metastasis was admitted with hypokalemic paralysis and features of GS, about 10 days after the first cycle of PRRT with <sup>177</sup>Lutetium-DOTATOC. Six months before, he underwent an ileal resection for carcinoid G2 with pre-operative serum creatinine 0.84 mg/dl, sodium 139, potassium 4.3, magnesium 1.9, calcium 8.9. At admission serum creatinine 0.89 mg, sodium 141, potassium 1.9, magnesium 0.5, calcium 4.9, pH 7.55, bicarbonate 40.2, renin 6.9 ng/dl (VN 0,1 – 2,8), aldosterone 271 pg/ml (VN 30-150); urinary potassium 97.5 mEq/24 hr, calcium 12.5 mg/24 hr (VN 100-300), magnesium 136.8 mg/24 hr. Analysis of SLC12A3 reveals a missense homozygous C G transition in exon 6 at position 791, causing alanine-to-glycine exchange at amino acid position 264 of the protein sequence (A264G). The PRRT may jeopardize the renal tubular function without glomerular impairment. The routine renal surveillance of patients on PRRT should encompass serum and urine electrolytes beside serum creatinine.

### Diagnosis rate of primary aldosteronism in Emilia-Romagna, northern Italy, during 16 years (2000-2015)

A. Negro<sup>1</sup>, F. Perazzoli<sup>1</sup>, R. Santi<sup>1</sup>

<sup>1</sup>Internal Medicine and Hypertension Unit, IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

Primary Aldosteronism (PA) is the most common form of endocrine hypertension, with a prevalence from 5 to 11% among hypertensives. Unilateral PA is found in 1/3 of the cases. Diagnostic work-up requires a clinical setting, so the discharge diagnosis is a reliable criterion to evaluate the diagnosis rate of PA.

**Aims:** 1. To estimate the ratio between the number (N) of patients discharged with a diagnosis of PA from all the hospitals within Emilia-Romagna from 2000 to 2015 and the N of expected cases with PA based on a prevalence of PA of 5% among hypertensives; 2. To estimate the ratio between the N of patients with a diagnosis of PA who have been submitted to adrenalectomy and the N of expected cases of unilateral PA based on a rate of unilateral PA of 30% of all PA cases. We have considered two different age groups for which the prevalence of HT in E-R has been ascertained: age 35-74 years (HT prevalence: M 52.4%, F 37.8%) and age over 20 years (M 27.5%, F 28.3%).

**Results:** N of patients with PA diagnosis, age 35-74 ys/N of expected cases of PA of the same age group=791/43033 (1.8%). N of adrenalectomies among patients with a diagnosis of PA, age 35-74 ys/N of expected cases of unilateral PA of the same age group=142/12910 (1.0%). N of patients with PA diagnosis, age over 20 years/ N of expected cases of PA of the same age group=992/51155 (1.9%). N of adrenalectomies among patients with a diagnosis of PA, age >20 ys/ N of expected cases of unilateral PA of the same age group=160/15346 (1.0%).

**Conclusions:** Less than 2% of the expected cases of PA in E-R have been identified in a period of 16 years.

### Incidenza ed effetti clinici delle infezioni da virus B e C nei pazienti neoplastici sottoposti a chemioterapia: studio osservazionale retrospettivo e prospettico

G. Nettis<sup>1</sup>, A.M. Anzelmo<sup>1</sup>, R. Solazzo<sup>2</sup>, V. Tagarielli<sup>1</sup>, M. Errico<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale "Miulli" Acquaviva delle Fonti (BA)

<sup>2</sup>Polo infermieristico "Miulli", Acquaviva delle Fonti (BA), Italy

**Razionale:** La riattivazione del Virus B e C con epatite è emergente nei pazienti con tumori solidi ed ematologici in terapia citodituttiva.

**Scopo dello studio:** Valutare l'incidenza ed effetti clinici delle infezioni da virus B e C nei pazienti con neoplasia sottoposti a chemioterapia.

**Materiali e Metodi:** Sono stati analizzati 534 casi della UOS di

Oncologia, UOC Medicina Interna dell'Ospedale Miulli di Acquaviva delle Fonti, nel periodo gennaio 2015-maggio 2016. Sono stati analizzati tipo di neoplasia e schemi chemioterapici ed eventuale infezione da virus B e C. Sono stati trascritti gli eventuali trattamenti profilattici o terapeutici.

**Risultati:** Sono stati valutati 364 pz nell'anno 2015 in via retrospettiva e 170 nell'anno 2016 prospetticamente. Sono stati sottoposti a screening per virus epatite 250 pazienti (47%). Di questi 152 (61%) sono risultati positivi al test. Dei pazienti in trattamento chemioterapico risultati positivi ai test virali 50 erano HBV positivi (7 con infezione inattiva, 43 occulte). 14 positivi al Virus C. Hanno presentato riattivazione di malattia 9 pazienti virus B (4 inizialmente inattivi, 6 occulte), nessuno virus C positivo.

**Conclusioni:** È necessario effettuare screening per i Virus B e C in tutti i pazienti con neoplasia, candidati a terapie con chemioterapici o farmaci immunosoppressori, e avviare la profilassi e la terapia dei pazienti positivi, non solo in forma inattiva ma anche occulte. Una eventuale positività al virus C deve essere monitorata vista la recente possibilità di cure della malattia in fase attiva.

### Incidence of gynecomastia in patients with heart failure treated with mineralocorticoid receptor antagonists: a meta-analysis of randomized controlled trial

E. Nicolini<sup>1</sup>, S. Speroni<sup>1</sup>, L. Tavecchia<sup>2</sup>, A.M. Maresca<sup>2</sup>, L. Guasti<sup>2</sup>, A.M. Grandi<sup>2</sup>

<sup>1</sup>Department of Clinical and Experimental Medicine, Ospedale di Circolo, Varese; <sup>2</sup>Department of Clinical and Experimental Medicine, University of Insubria, Varese, Italy

**Background:** Mineralocorticoid receptor antagonists (MRA) are effective in patients with heart failure (HF) with reduced (REF) or preserved ejection (PEF) fraction (EF). Gynecomastia is a potential adverse effect of MRAs but its incidence may be different in different compounds due to their specific affinity for androgen receptors.

**Methods:** To investigate the incidence of gynecomastia in patients with HF and either reduced or preserved EF treated with MRAs (spironolactone, canrenone, eplerenone), already receiving best medical therapy (including ACEI or ARB), we performed a meta-analysis of the literature searching in MEDLINE and EMBASE (up to October 2016) for randomized controlled trials. Pooled relative risk (RR) and corresponding 95% confidence interval (CI) were calculated using the random effect model and significant results were presented with number needed to harm (NNH). Furthermore, we planned a subgroup analysis to assess the incidence of gynecomastia with different compounds.

**Results:** Ten RCTs (HF-REF: 7; HF-PEF: 3, 13947 patients) were included. MRA treatment slightly increased the risk of gynecomastia (RR 2.53; 95%CI 0.96-6.68; P 0.06). In patients treated with spironolactone or canrenone (7 studies, 6252 patients) gynecomastia appeared significantly increased (RR 7.37; 95%CI 4.39-12.39; NNH 30), while in patients treated with eplerenone (3 studies, 7695 patients) gynecomastia did not appear significantly increased (RR 0.74; 95%CI 0.48-1.16).

**Conclusions:** Treatment with spironolactone and canrenone but not with eplerenone significantly increased the risk of gynecomastia.

### Facing rare conditions: ondine-like syndrome in a patient with multiple pituitary deficiency

V. Nieswandt<sup>1</sup>, F. Sottotetti<sup>2</sup>, G. Brusco<sup>1</sup>, M. Carbone<sup>1</sup>, P. Cavallo<sup>1</sup>, L. Magnani<sup>1</sup>

<sup>1</sup>Unità Operativa di Medicina Interna, Ospedale Civile di Voghera, ASST Pavia; <sup>2</sup>Unità Operativa di Oncologia Medica, ICS Maugeri, IRCCS, Pavia, Italy

A 36 years old man came to our observation after a short recovery in the intensive care unit for a respiratory arrest, occurred while sleeping. Similar episodes were reported from childhood. He was in treatment with noninvasive, positive pressure ventilation during sleep for a condition of central hypoventilation. Due to a concomitant condition of multiple pituitary deficiency, in a context of diencephalon-pituitary atrophy, he took testosterone, bromocriptine, desmopressin, somatotropin. He manifested also body tempera-



ture instability with episodes of severe hypothermia. He presented square face with a tall, flat forehead, a deep philtrum with downturned lips and strabismus. At present, he referred a diagnosis of Ondine-like syndrome; this probably didn't fully explain his disease since in 2009, in the suspicion of this syndrome, he was subjected to a genetic exam for the research of PHOX2B gene mutation, that resulted negative. Congenital central hypoventilation syndrome (CCHS), also called Ondine syndrome, is a rare, lifelong condition that causes primary alveolar hypoventilation. PHOX2B gene is the disease-defining gene for CCHS. Transmission has an autosomal-dominant pattern, although most cases of CCHS are *de novo* or inherited from a mosaic typically unaffected parent. The demonstration of the mutation is required for the diagnosis of CCHS. Several complex conditions are not referable to defined genetic lesions. We speculate that the presence of other genetic conditions or secondary unexplained causes (e.g. viral infections), might have caused the clinical picture.

### A case of fever and faciobrachial paralysis

I. Normelli<sup>1</sup>, D. Berselli<sup>1</sup>, V. Cordiano<sup>1</sup>, M. Giachetti<sup>1</sup>, F. Maddalena<sup>1</sup>, S. Mulone<sup>1</sup>, F. Miserocchi<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, PO Valdagno, AULSS 8 Berica, Vicenza, Italy

**Background:** Brain abscess are pyogenic infections of the brain's parenchyma, they are a serious and potentially life-threatening conditions. The major predisposing factors are a contiguous focus of infections, trauma and hematogenous spread from a distant focus. In at least 15% of cases no source can be identified. The organism most commonly isolated are anaerobic bacteria, aerobic and microaerophilic streptococci and *Staphylococcus aureus*.

**Case report:** A 74-years-old man was admitted with right faciobrachial paralysis, fever and shivering. The patient had a biological aortic valve prosthesis and chronic ischemic heart disease. Recently, the patient had been resigned from another hospital with diagnosis of acute renal insufficiency, due rhabdomyolysis and sepsis. At the admission the head CT detached 5 bilateral cerebral lesions, confirmed by the cerebral MR, at first identified as metastasis. The total body CT was negative for primitive tumor. 6/6 blood cultures were positive for *Streptococcus Intermedium*, but transthoracic and transesophageal echocardiography were negative. The total body PET/CT identified 5 round cerebral ametabolic areas, surrounded by normal metabolic activity, and no other areas of pathologic captation were identified.

**Conclusions:** The patient was moved to the Infectious Disease and Neurosurgery Division. He was treated with antibiotic therapy, general clinical conditions improved and 3 of the 5 lesions were surgically removed. Following CT demonstrated no variations. One month later the patient is still in good health conditions.

### Una "singolare" vasculite dell'osso: case report

S. Noviello<sup>1</sup>, A. Cirulli<sup>1</sup>, P. De Luca<sup>1</sup>, C. Costagliola<sup>1</sup>, R. Ria<sup>1</sup>, A. Vacca<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Oncologia "G. Baccelli", Policlinico di Bari, Italy

Paziente di 52 anni ricoverato per febbre, calo ponderale, aumento volumetrico dell'arto inferiore destro con limitazione funzionale e dolore (riscontro EMG di neuropatia sensitivo motoria). Ex fumatore, sottoposto a rivascolarizzazione coronarica per IMA e a by-pass femoro-popliteo bilaterale. IRC II stadio K-DOQI.

**Esame obiettivo:** Segni di flogosi dell'arto inferiore destro e aumento di volume della caviglia senza edemi improntabili. Esami ematochimici: anemia normocitica, incremento degli indici di flogosi, componente IgG lambda all'elettroforesi. Assetto autoimmune ed esami colturali negativi. Il doppler della gamba destra documentava "Stenosi dell'arteria femorale (AF) comune e superficiale con occlusione della tibiale anteriore" confermate all'angio-TC. Riscontro radiografico dello stesso arto, di "Reazione periostale disposta a manico di tubo, tipo infarti ossei, e diafisi femorale". Patologia ematologica tipo istiocitosi o malattie dell'osso come Paget o sarcoma? La RM escludeva patologie ossee di tipo maligno o Paget mentre i dati di laboratorio non deponevano per emopatie. Alla PET/TC riscontro di "Captazione ossea (SUV: 3.2)

con estensione craniocaudale, del ginocchio (3.8) e delle pareti dell'AF (4.6) della gamba destra". Supportati dai criteri diagnostici dell'ACR si è giunti alla diagnosi di panarterite nodosa con interessamento isolato di ossa e articolazioni senza coinvolgimento delle sedi tipiche di malattia. Risoluzione del quadro clinico dopo terapia steroidea ed immunosoppressiva.

### Multifactorial vasculopathy in patients with systemic vasculitis: an experimental study

S. Noviello<sup>1</sup>, S. Cicco<sup>1</sup>, P. De Luca<sup>1</sup>, A. Polito<sup>1</sup>, A. Cirulli<sup>1</sup>, S. Longo<sup>1</sup>, A. Vacca<sup>1</sup>

<sup>1</sup>Medicina Interna "G. Baccelli", Policlinico di Bari, Italy

Numerous studies have shown the correlation between carotid intima-media thickness (IMT) during chronic systemic inflammatory disorders (connective tissue disease, IBD). The relationship between IMT and vasculitides is less established. This study aims to examine IMT in patients affected with systemic vasculitis compared to general population and potential correlation between increased IMT and high levels of CRP and ANCA positivity. 32 patients (both genders) between the ages of 24 and 74 (mean age 51) with primitive or secondary systemic vasculitis already receiving immunosuppressive therapy were examined. Each patient received a carotid bifurcation doppler ultrasound test with IMT evaluation; IMT was considered increased if equal to or greater than 1 mm, taken as mean value on 3 distinct measurements of the carotid bifurcation. For each patient CRP and ANCA levels were determined. The IMT values were then compared to those of normal subjects (control group). This study has shown pathologically increased IMT in patients with systemic vasculitis, probably due to pro-inflammatory cytokines involved in arteriosclerotic vascular disease. No correlation was found between high levels of CRP and ANCA and IMT values.

### Cytomegalovirus pneumonia in immunocompetent host

M.G. Nuzzo<sup>1</sup>, M. Schettino<sup>1</sup>, A. Gargiulo<sup>1</sup>

<sup>1</sup>A.O.R.N. Sant'Anna e San Sebastiano, Caserta, Italy

A 59 years old man, with COPD and arterial hypertension, was admitted for shortness of breath. No fever, B.P.120/80, P.R.94 b/min, SaO<sub>2</sub> 98% on air. Bilateral diffuse crackles on lung auscultation. At laboratory tests 16200/μl WBC: neutrophils 83%, lymphocytes 12%, monocytes 7%; ESR 34 mm/h, CRP 16.4 mg/dl. Chest X-ray showed bilateral diffuse interstitial pulmonary infiltrates. Echocardiogram didn't show pathological finding. Chlamydia and *Mycoplasma pneumoniae*, *Legionella* antibodies and urinary antigens, HSV, EBV titers were negative. IgM CMV titer was positive (23.1). HIV test negative. A HRCT chest showed bilateral diffuse multilobular ground glass opacities. Bacteria or mycobacteria weren't isolated. Diagnosis was CMV CAP (community acquired pneumonia). He became progressively hypoxemic (SaO<sub>2</sub> 87% on air) with fever. A therapy with oral valganciclovir was started. After 8 days his clinical condition improved, he was discharged and followed up 6 weeks later. CMV CAP is rare in immunocompetent host. It isn't distinguishable from other viral pneumonias: diffuse interstitial infiltrates on X-ray and respiratory failure. The diagnosis can be serological or histological: elevated CMV IgM titer or CMV PCR (usually negative in primary CMV CAP in immunocompetent), instead lung biopsy can reveal pathognomonic CMV inclusion bodies. BAL is usually negative. In this case for clinical worsening bronchoscopy and BAL weren't possible. CMV is usually a self-limiting infection, then the antiviral therapy (ganciclovir or valganciclovir) is reserved for severe or life-threatening infections.

### Incidental vertebral fractures on chest x-ray in an Italian hospital

V. Nuzzo<sup>1</sup>, F. Tovecci<sup>1</sup>, P. Madonna<sup>1</sup>, R. Ruggiero<sup>1</sup>, A. Zuccoli<sup>1</sup>, E. Russo<sup>1</sup>, R. Giannattasio<sup>1</sup>, I. Marano<sup>1</sup>

<sup>1</sup>Rete Endocrino-Metabolica, ASL Napoli 1 Centro, Napoli, Italy

Recognition of incidental vertebral fractures may be an important opportunity for identifying and treating osteoporosis. To assess in-

cidental vertebral fractures and to define patient and hospitalization characteristics associated with osteoporosis management in an Italian general Hospital we undertook an audit. In 300 consecutive patients, sagittal images of the spine were obtained by re-formatting data from x-ray examinations of the chest. Vertebral fractures were assessed using a semi-quantitative technique. The prevalence of vertebral fractures was 3.7%, with vertebral fractures identified in 11 patients; 1/11 (9%) had vertebral fracture mentioned in the formal x-ray report. Vertebral fracture and osteoporosis were each listed in the relevant discharge summary or clinic letter for only 1% of patients, and no patients with fracture subsequently received osteoporosis treatment. In summary, incidental vertebral fractures from inpatient chest radiographs may represent a missed opportunity for osteoporosis management.

### Un caso di angiomiolipoma renale e ipertensione renovascolare nella sclerosi tuberosa

F. Olmati<sup>1</sup>, A. Concistrè<sup>1</sup>, C. Marinelli<sup>1</sup>, L. Petramala<sup>1</sup>, M. Celi<sup>1</sup>, G. Iannucci<sup>1</sup>, C. Letizia<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Specialità Mediche, Università di Roma "Sapienza", Italy

**Premesse e Scopo dello studio:** La sclerosi tuberosa (TSC) è una malattia autosomica dominante caratterizzata da lesioni nervose, cutanee e splancniche (renali, cardiache e polmonari) costituite da amartomi di derivazione ecto-mesodermica. È caratterizzata da mutazioni inattivanti uno dei due geni TSC, TSC1 (1%) e TSC2 (82%), presenti sulla parte distale del braccio lungo del cromosoma 9. Le lesioni renali caratteristiche della TSC sono gli angiomiolipomi (AML), multipli e bilaterali, responsabili di complicazioni acute come emorragia, rottura, compressione, più raramente insufficienza renale.

**Materiali e Metodi:** Abbiamo descritto un caso di una donna di 27 anni affetta da TSC, con storia di ipertensione arteriosa non controllata di lungo tempo, in trattamento con ramipril e furosemide. Sono stati effettuati esami ematochimici ed esami di screening per la ricerca di forme secondarie di ipertensione. Per il sospetto di ipertensione renovascolare, veniva eseguita TC addome che evidenziava la presenza di una lesione di 3 cm a carico del rene sinistro, responsabile di fenomeni compressivi sull'arteria renale all'ilo e al ramo polare superiore. Veniva perciò indicato videat chirurgico con successiva rimozione per via laparoscopica della neoformazione. La diagnosi finale istologica deponeva per AML.

**Risultati:** Dopo l'intervento chirurgico la paziente riferisce valori di pressione arteriosa controllati in assenza di terapia.

**Conclusioni:** Abbiamo descritto un raro caso di stenosi dell'arteria renale provocata da compressione ab estrinseco provocata da un AML, in paziente affetta da TSC.

### Lymphadenopathies and autoimmune phenomena: a clinical case report

I. Oppedisano<sup>1</sup>, A. Assolari<sup>1</sup>, S. Maestroni<sup>1</sup>, R. Caldara<sup>1</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Internal Medicine, Hospital Papa Giovanni XXIII, Bergamo, Italy

**Background:** Asthenia, fever and general discomfort are common symptoms in internal medicine patients and can be referred to a wide range of illnesses. Moreover, an activation of autoimmunity may increase complexity of the diagnosis.

**Methods and Results:** A young woman from Ivory Coast was hospitalized in our Internal Medicine Unit in December 2016 with fever, asthenia and a skin rash on her chest and back. She had been living in Italy for two years. She presented a month before a suspected autoimmune myocarditis with mitral regurgitation and a DVT; LAC was positive. Laboratory tests showed a quite severe pancytopenia, CRP 1,5 mg/dL, LDH 397 mg/dL and a multivitamin deficiency. Mantoux test was strikingly positive. CT scan and PET showed only enlarged and metabolic active abdominal, pelvic and axillary lymph nodes, but no pulmonary involvement. The bone marrow exam was normal. A biopsy of an inguinal node was negative for TB and suggestive for Langerhans cell Histiocytosis; sputum was negative for TB. We also diagnosed an autoimmune hyperthyroidism and a lichen planus. ANA titer was 1:320. Finally, we made a surgical excision of an axillary node, in which acid-alcohol-resistant bacilli were clearly

present, with also necrosis caseosa and Langhans giant cells. She started anti-tubercular therapy.

**Conclusions:** Lymph node involvement is the most common type of extra-pulmonary TB; it is particularly common in young and non-Caucasians women and pulmonary disease isn't always present. Immune activation and pancytopenia may obscure the diagnosis.

### Pleural nodules and effusion as a first sign of multiple myeloma: a diagnostic challenge

N. Palagano<sup>1</sup>, A. Moggi Pignone<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, G. Bandini<sup>1</sup>, A. Mele<sup>1</sup>, P. Bernardi<sup>1</sup>, C. Marchiani<sup>1</sup>, M. Gagliano<sup>1</sup>, C. Piazzai<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>

<sup>1</sup>AOU Careggi, Medicina Alta Complessità Assistenziale 4, Firenze, Italy

**Background:** Myelomatous pleural involvement (MPI) results in less than 1% of all MM cases with just a few cases reported to date.

**Case report:** A 52 year old woman was admitted to the Emergency Department of a tertiary care hospital with a history of lower back pain. Physical examination showed a positive Giordano sign on the left costovertebral angle. Abdominal ultrasound revealed mild splenomegaly and no signs of kidney stones or other urinary tract abnormalities. Urine tests were negative. Blood tests showed a normal WBC count, 91.000 platelets and microcytic hypochromic anemia. Chest x-ray revealed multiple nodules on the base of the right lung and an associated pleural effusion. These findings were confirmed by a chest and abdominal CT. CT also showed areas of bone rarefaction in the pelvis and sternum. Bone marrow biopsy revealed a MM. PET with 18F-FDG showed areas of intense uptake in both humeri, the spleen, and the basis of the right lung. Thoracoscopy revealed multiple hypervascularized nodules on the right parietal pleura which were biopsied and a chest drain was placed. Cytological and mycobiological tests on the fluid were negative whereas biopsy was positive for myelomatous tissue showing clonal plasma cells with lambda light chain restriction.

**Conclusions:** Differential diagnosis of malignant pleural effusion should include hematological malignancies. Routine pathological examination of pleural effusion has low sensitivity. Semi-rigid thoracoscopy has shown to be a safe and effective method for obtaining pleural specimens for histopathological evaluation in MPI.

### Paresthesia and weakness revealing Arnold Chiari malformation type 1: a case report and literature review

O. Para<sup>1</sup>, E. Blasi<sup>1</sup>, G. Cioni<sup>1</sup>, E. Antonielli<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. Zaccagnini<sup>1</sup>, G. De Marzi<sup>1</sup>, C. Florenzi<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina a Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 37-year-old woman with a history of headache, situs inversus and anxiety was admitted to the hospital because of paresthesia on the right side of the body, weakness in right hand and foot and light-headedness for a day and falling down stairs. The blood tests didn't show significant alterations. Echocardiography was negative. A total body computed tomography (CT) showed C5-C6 disc herniation and dysmorphic spleen with homogeneous contrast enhancement. CT cerebral angiography didn't reveal lesions. Sensory evoked and moto evoked potentials and electroneurography were negatives. A brain magnetic resonance showed herniation of the cerebellar tonsils through the foramen magnum, suggestive of type 1 Arnold-Chiari malformation. Surgery wasn't indicated. Type I Chiari malformations are congenital deformities involving cerebellar tonsillar herniation downward through the foramen magnum. Clinical manifestations are headache, facial nerve deficits, seizures, vestibular syndrome, ataxia, menace deficit, proprioceptive deficits, head tremor, temporal muscle atrophy, and multifocal central nervous system signs. MRI is the diagnostic of choice, but computed tomography can also be used. Posterior fossa decompression is the most common surgical treatment for this condition.

### Management of traumatic patient in internal ward: an emerging internist challenge. Are we ready to win it?

O. Para<sup>1</sup>, L. Masotti<sup>2</sup>, V. Vannucchi<sup>2</sup>, G. Panigada<sup>3</sup>, A. Fortini<sup>4</sup>

<sup>1</sup>AOU Careggi, Firenze, Medicina ad Alta Complessità Assistenziale 1; <sup>2</sup>Os-

pedale Santa Maria Nuova, Firenze; <sup>3</sup>Ospedale SS Cosma e Damiano, Pescia (PT); <sup>4</sup>Ospedale San Giovanni di Dio, Firenze, Italy

**Background:** Mortality related to the traumatic event may also occur at a distance for the onset of other medical complications during hospitalization. In recent decades, increasing age and comorbidities have given out to a traumatology of internistic interest. The purpose of our study is to define the real dimension of traumatology in internal medicine.

**Materials and Methods:** Analysis conducted with a questionnaire form consisting of 18 points were filled by 70 internists during XV regional meeting of the scientific society FADOI in Tuscany.

**Results:** 69 internists from different areas were involved in the study. About a third of the physicians involved have worked in medicine for more than 20 years. In 22% of cases a sub-intensive unit was available. Nearly half of patients with trauma came from the emergency room and 67% of cases were managed in ordinary ward. 83% of respondents believe that the prevalence of trauma in medicine have increased in recent years, particularly in the age group between 76 and 85. For 52% of the doctors, the trauma medicine is a significant and very significant problem. Finally, it was observed that physicians participating in study didn't have sufficient knowledge regarding management of traumatic patients.

**Conclusions:** Trauma patients are more and more addressed to internal medicine. In this context, the internist thanks to his achievements seems the more suitable figure to handle frequent medical complications. This is therefore the time to focus on traumatic pathology and provide the internist the proper training for the management of this patients.

#### Percutaneous vertebroplasty: complication in cancer patient

F. Parente<sup>1</sup>, A. Cezza<sup>1</sup>, M.C. Scorrano<sup>1</sup>, A. Valiani<sup>1</sup>, M. Serra<sup>1</sup>, M.C. D'amelio<sup>1</sup>, C. Nuzzo<sup>2</sup>, G. Castrignanò<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "V. Fazzi", Lecce; <sup>2</sup>U.O. Radiologia, Ospedale "V. Fazzi", Lecce, Italy

**Premise and Purpose of the study:** Percutaneous vertebroplasty (PVP) is a procedure for treatment of osteoporotic fractures and metastatic bone disease. Cement leakage is a common complication due to loss of cement into the spinal canal or paravertebral venous system. In this case report, we discuss an example of this condition.

**Materials and Methods:** 64 yo female patient with history of metastatic breast cancer had PVP due to secondary vertebral fractures. A 3-months follow-up whole-body CECT showed deep venous thrombosis (DVT) in inferior vena cava (IVC), common external and internal iliac veins with pulmonary embolism (PE). Both the visit and the venous Color Doppler Ultrasonography excluded DVT of the legs. A CT-imaging revision revealed the presence of high atomic weight hyperdense material which flew from L3 soma to the lumen of a paravertebral vein connected with IVC, with consequent protrusion in this vessel.

**Results:** Imaging picture showed leak of cement in the paravertebral venous system. This complication caused PE due to a thrombus in IVC extended to the iliac veins within a thrombotic paraneoplastic predisposition.

**Conclusions:** Almost 90% of the symptomatic PE born from a thrombus located in deep-legs venous system. However, both clinical picture and ultrasonography which excluded DVT led the clinical team to re-examine CT-imaging and to confirm a different pathogenesis linked with a common complication of PVP in this cancer patient.

#### Low vitamin D increases the cardiovascular risk through increased parathyroid hormone levels

A.V. Pascale<sup>1</sup>, R. Giannotti<sup>1</sup>, R. Finelli<sup>1</sup>, D. Fabbricatore<sup>1</sup>, V. Visco<sup>1</sup>, A. Battimelli<sup>1</sup>, A. Massari<sup>2</sup>, L. Mandia<sup>3</sup>, M. Ciccarelli<sup>1</sup>, G. Iaccarino<sup>1</sup>

<sup>1</sup>University of Salerno, Department of Medicine and Surgery; <sup>2</sup>San Giovanni di Dio e Ruggi d'Aragona Hospital, Salerno; <sup>3</sup>Luigi Curto Hospital, Polla (SA), Italy

**Background:** Vitamin D and parathormone (PTH) are closely related in the regulation of the homeostasis of calcium and bone metabolism. Recently, serum Vitamin D (VitD) has also been re-

lated to cardiovascular risk (CVR), multiple mechanisms have been evoked although none relates to PTH serum concentration. We have conducted a survey in the general population of 4 villages in Southern Italy to observe the association of serum Vitamin D and PTH with CVR.

**Methods:** We have recruited 412 persons (193 males and 219 female, 14-85 years) of the general population during the XI and XII World Hypertension Day. We administered anamnestic questionnaires, recorded anthropometric values, measured blood pressure and heart rate, collected a venous blood sample.

**Results:** As expected, VitD and PTH are inversely correlated in the general population (Pearson;  $r = -0.236$ ,  $p < 0.001$ ). When dividing the population in age groups (5 groups, every 20 yr) PTH increased significantly with aging. In each age group, the relationship between VitD and PTH held true. Using the intercept of PTH on VitD in the Pearson correlation as a cutoff, we divided the population in Low PTH and High PTH. The Low PTH group have an overall lower CVR, considering the CUORE risk score. When considering the age groups 41 to 60 years, High PTH identified a higher CVR. Analyzing the determinant of CVR responsible for this increased risk, we identified higher systolic blood pressure.

**Conclusions:** We propose PTH as a determinant of CV risk, which can explain the association of Vitamin D deficiency and cardiovascular risk.

#### Il setting delle cure intermedie: definizione di un innovativo modello organizzativo e gestionale in ASLTO3

S. Passi<sup>1</sup>, D. Minniti<sup>2</sup>, M. Alesina<sup>1</sup>, R. Siliquini<sup>3</sup>, M. Reborà<sup>4</sup>, F. Boraso<sup>5</sup>

<sup>1</sup>Scuola di Specializzazione in Igiene e Medicina Preventiva, Università degli Studi di Torino; <sup>2</sup>Direzione Medica di Presidio Ospedaliero ASLTO3; <sup>3</sup>Dipartimento di Scienze della Sanità Pubblica e Pediatriche, Università degli Studi di Torino; <sup>4</sup>Direzione Sanitaria Aziendale ASLTO3; <sup>5</sup>Direzione Generale ASLTO3, Torino, Italy

**Premesse e Scopo dello studio:** Nonostante le azioni di rimodulazione dell'offerta sanitaria intraprese, tra cui si annovera la creazione di posti letto territoriali di Continuità Assistenziale a Valenza Sanitaria (C.A.V.S.), l'analisi dei processi ospedalieri non ha evidenziato i benefici sperati. L'obiettivo generale dello studio consiste nell'elaborazione di un modello innovativo relativo al setting delle cure intermedie come nuova proposta organizzativa per la gestione del paziente con dimissione ospedaliera.

**Materiali e Metodi:** La progettazione del modello organizzativo si è strutturata in 4 fasi: assessment, definizione obiettivi di salute, progettazione nuovo modello organizzativo e valutazione costo-efficacia dei due modelli.

**Risultati:** La progettazione, durata otto mesi, si è basata su tre principi cardine: la domiciliarità, la modularità della risposta clinico-assistenziale e sociale dell'utenza, la gestione mista (azienda pubblica-terzo settore). Nello specifico il modello organizzativo si caratterizza per una modularità-flessibilità del carico assistenziale valutato settimanalmente attraverso scale scientifiche permettendo la definizione e la modulazione del carico assistenziale da un massimo di 45 ore ad un minimo di 19 ore a secondo del grado di intensità (sanitaria e sociale). Nel periodo di presa in carico, massimo trenta giorni, viene definito il progetto di cura finale del paziente. Gli indicatori predefiniti permettono l'analisi a confronto, mediante studio prospettico di coorte, dei due modelli di cure intermedie (CAVS Vs Progetto Cure Intermedie).

#### Education to prevent early re-hospitalization in insulin treated diabetic patients: the Colleferro experience

M. Pellegrinotti<sup>1</sup>, A. Cacciotti<sup>1</sup>, G. Gabrielli<sup>1</sup>, A. Franco<sup>1</sup>, R. Pastorelli<sup>1</sup>

<sup>1</sup>UOC Medicina, PO Colleferro (Roma), Italy

Diabetic patients often experience many access to emergency room and re-hospitalization (the so called "revolving patient") due to poor glycemic control and incompetence in its management. Moving from D-time (D-t; a structured educational protocol for insulin treated hospitalized patient) we developed a nurse managed sub-intensive educational support directed to major complex diabetic patients (ie patients with metabolic instability; comorbidity; low socio-economical status; polytherapy) concurrently with the

standard diabetic ambulatory (DA) activity and for a defined time with the aim to reduce the number of access to emergency room (ER) and re-hospitalization in the short/medium time. We enrolled 162 patients (M85; F 77) during a period of 10 months coming from the ER or dismissed from our ward or surgical wards and from diabetic ambulatory. People were trained at start (T0) using the D-t protocol; a recall training was performed after 3 (T3) and 6 months (T6); if necessary the insulin dose was up or down-titrated. HbA1c was measured at T0, T3 and T6 (respectively 9.64; 7.76 and 7% or 82; 61 and 54 mmol/mol). To evaluate the patient's comprehension an assessment test (score 0-28; 28 the higher) was performed at T0, T3 and T6 (respectively 15.86; 20.97 and 26.08); at T3 no hospitalizations were recorded in any of our patients; two were recorded at T6 for other causes than diabetes. A structured and defined protocol for a sub-intensive educational support directed to selected patients can prevent diabetes-related hospitalizations among major complex diabetic patients.

### Leadership sostenibile: il ruolo dei coordinatori infermieristici dei reparti di Medicina

G. Pentella<sup>1</sup>, M. Iannuzzo<sup>1</sup>, C. Sepe<sup>2</sup>, G. Di Ronza<sup>2</sup>, M. Fiscale<sup>1</sup>, A. Luongo<sup>1</sup>, G. Uomo<sup>2</sup>, A. Fontanella<sup>1</sup>

<sup>1</sup>Ospedale Buon Consiglio Fatebenefratelli, Napoli; <sup>2</sup>AORN Cardarelli, Napoli, Italy

**Premesse e Scopo dello studio:** In un momento storico così mutevole come il nostro, la sostenibilità dei sistemi sanitari si basa non solo sulla capacità dei professionisti di partecipare alla gestione del sistema, ma soprattutto di pianificarne l'adattamento alle variazioni. Il che porta a ragionare su come sviluppare caratteristiche personali essenziali per la costruzione di uno stile di leadership che valorizzi modelli e strumenti innovativi basati sul rispetto, sulla cooperazione e sulla conoscenza reciproca.

**Materiali e Metodi:** Per fotografare come lo stile di leadership percepito del coordinatore infermieristico influenzi le valutazioni dei collaboratori sull'organizzazione si è utilizzata la versione italiana del questionario Empowering Leadership Questionnaire (ELQ) con 38 items compilati in modo anonimo da tutta l'equipe dei reparti di medicina dell'Ospedale Buon Consiglio e dell'AORN Cardarelli di Napoli.

**Risultati:** Dall'analisi delle risposte è emerso come la leadership influenzi la percezione dell'organizzazione in due modi diversi legati a quanto gli infermieri ritengono che i loro coordinatori attuino una gestione partecipata del gruppo, soprattutto sull'informazione adeguata circa le decisioni strategiche dell'azienda, e sul tempo dedicato a ascoltare le problematiche dei singoli.

**Conclusioni:** Il nostro studio ha confermato il ruolo fondamentale che la leadership deve giocare non nella ricerca dell'omogeneità comportamentale, ma nell'accoglienza della diversità e nella capacità di integrazione nel gruppo attraverso la comunicazione e l'informazione.

### Study of both TCR $\gamma$ and TCR $\beta$ rearrangements improves clonality detection in refractory celiac disease

V. Perfetti<sup>1</sup>, L. Brunetti<sup>2</sup>, F. Biagi<sup>2</sup>, R. Ciccocioppo<sup>2</sup>, P. Bianchi<sup>2</sup>, G.R. Corazza<sup>2</sup>

<sup>1</sup>Medicina Interna, Ospedale Varzi, ASST Pavia; <sup>2</sup>Medicina I, IRCCS Policlinico San Matteo, Pavia, Italy

**Background:** Refractory celiac disease (RCD) is characterized by lack of response to a gluten-free diet. Type II RCD is a preneoplastic condition featuring clonal intraepithelial T-lymphocytes (IEL) that may give rise to enteropathy-associated T-cell lymphoma (EATL). Clonality of IEL is measured by PCR assays demonstrating clonal rearrangement of the variable (V) region  $\gamma$  of the T-cell receptor (TCR). However, studies demonstrated that the combined analysis of TCR- $\gamma$  and TCR- $\beta$  rearrangements significantly improve detection of rare clones, as it might be the case of preneoplastic conditions such as RCD. Therefore, we used the 2 PCR assays for the detection of both V $\gamma$  and V $\beta$  gene rearrangements in duodenal biopsies from different forms of CD.

**Materials and Methods:** DNA: extracted from snap-frozen duodenal biopsies. 15 RCD, 21 uncomplicated CD (UCD). PCR analy-

ses: standardized kit (In Vivoscribe) based on the BIOMED-2 Concerted action protocols. PCR products were cloned and sequenced to confirm their identity.

**Results:** Interpretation of gels was unequivocal. Monoclonal rearrangements were detected in 5/15 RCD (both rearrangements in 2 cases, V $\beta$  only in 2 and V $\gamma$  only in 1), thus characterizing type II RCD. Monoclonality was found in 4/8 RCD who subsequently died, whereas just 1 of 7 pts still alive had a monoclonal TCR rearrangement.

**Conclusions:** The combined analysis of both rearrangements improved recognition of clonality, with detection rates from 20% (V $\gamma$ ) to 33% (V $\gamma$  plus V $\beta$ ), thus rising the likelihood of early identification of RCD pts at risk of death.

### La pseudovasculite nella sindrome da embolizzazione colesterinica: descrizione di un caso

D. Peterlana<sup>1</sup>, S. Dorigoni<sup>1</sup>, W. Spagnoli<sup>1</sup>

<sup>1</sup>Medicina Interna Ospedale di Trento, APSS del Trentino, Italy

**Premesse e Scopo dello studio:** La sindrome da embolizzazione colesterinica è dovuta al rilascio di cristalli di colesterolo da placca aterosclerotica che causa ischemia e flogosi. Le manifestazioni cliniche sono varie; frequente è l'interessamento renale e cutaneo. Le lesioni cutanee della sindrome sono clinicamente simili a quelle delle vasculite autoimmuni.

**Materiali e Metodi:** Descriviamo il caso di un 75enne maschio ricoverato per dolore agli arti inferiori, comparsa di livido reticolare, acrocianosi e porpora alle estremità inferiori ed insufficienza renale acuta. In anamnesi aneurisma dell'aorta e tre mesi prima intervento di artroprotesi in fase riabilitativa in profilassi con Enoxaparina. Agli esami HB 9.1, MCV 82 fl, PTL 71.000/mcl, creatinina 7.5 mg/dl. Autoanticorpi assenti e LAC negativi. La biopsia cutanea risultava compatibile per embolizzazione colesterinica. Il trattamento è stato conservativo con sospensione degli anticoagulanti.

**Discussione:** Il coinvolgimento cutaneo della sindrome da embolizzazione è simile alle manifestazioni delle vasculiti e gli accertamenti in tal senso erano negativi. La presenza di IRA, di lesioni cutanee agli arti inferiori e di fattori predisponenti quali l'aneurisma aortico e l'uso concomitante di eparina, erano fortemente suggestivi di malattia embolica, confermata istologicamente.

**Conclusioni:** La pseudovasculite indotta dalla embolizzazione colesterinica rientra nella diagnosi differenziale dalle vasculiti vere. Solo la biopsia cutanea è dirimente e è da ottenere in tempi rapidi per una corretta gestione.

### Remitting seronegative, symmetric synovitis with pitting edema as a paraneoplastic syndrome

C. Piazzai<sup>1</sup>, P. Bernardi<sup>1</sup>, T. Sansone<sup>1</sup>, M. Gagliano<sup>1</sup>, A. Mele<sup>1</sup>, A. Fabbri<sup>1</sup>, R. Fedi<sup>1</sup>, N. Palagano<sup>1</sup>, C. Marchiani<sup>1</sup>, E. Cioni<sup>1</sup>, S. Lunardi<sup>1</sup>, M. Finocchi<sup>1</sup>, G. Bandini<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina per l'Alta Complessità Assistenziale 4 (AOU Careggi), Firenze, Italy

**Introduction:** Remitting seronegative, symmetric synovitis with pitting edema (RS3PE) syndrome is a rare inflammatory arthritis, which affects predominantly elderly males and may occur together with rheumatic diseases, both hematological and solid malignancies, or as an idiopathic phenomenon.

**Case presentation:** A 78-year-old caucasian man was admitted to our hospital with a 5-days history of dyspnea on exertion and fever associated with painful swollen hands and forearms and functional loss, atraumatic in onset. No previous history of arthritis, weight loss or psoriasis. On physical examination: pitting edema in both hands and forearms; no signs of infection. Standard Lab-exams showed leucocytosis, elevated inflammatory markers. Autoantibody screen and rheumatoid factor were negative. Chest-X-Ray showed left paracardiac consolidation. Antibioticotherapy was started together with intravenous corticosteroid. A vascular color-Doppler excluded venous thrombosis, and a Musculoskeletal Ultrasound revealed the presence of tenosynovitis of extensor tendons at the wrists and metacarpal joints. A Chest and Abdominal CT was performed and showed an upper urinary tract urothelial thickening. During the fol-

lowing weeks on tapering dose of prednisolone the patient showed a complete resolution of oedema and symptoms, and the diagnosis of urothelial tumor was made.

**Discussion:** This case is an example of RS3PE as a paraneoplastic syndrome. The diagnosis was made by the following criteria: pitting edema of hands, sudden onset polyarthritis, age > 50 years, a negative Rheumatoid factor. Laboratory examinations may also show elevated ESR and C-RP.

### A case report of heavy heart...

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome

**Introduction:** Atrial myxomas, the incidence of which is unknown, are the most common type of primary heart tumor, derived from multipotential mesenchymal cells causing a ball valve-type obstruction conditioning difficulty breathing in the upright position, paroxysmal nocturnal dyspnea, dizziness, fainting, palpitations, cough, chest pain or tightness, heart failure, sudden death. Prognosis is excellent after surgical excision.

**Case report:** A 62 year-old woman was admitted to our Dept for transitory rash erythematous to legs and onset of transient hemianopsia and dysarthria complicated with right occipital frontal headache. Normal resulted respiratory and cardiological evaluation with EKG, except for the presence of a slight cardiac murmur, while at the neurological evaluation she appeared disarthric, confused and suffering with headache. Normal resulted all the laboratory tests. She was submitted to brain CT-scan with evidence of two hypodense left frontal and occipital lesions, started therapy on antithrombotics for a probable cerebral ischemic attack, and underwent to echocardiography with presence of a left atrial mass highly suggesting a myxoma! She now after myxoma excision by Cardiosurgeons is in healthy.

**Discussion:** Diagnosis of myxoma is made by stethoscope (tumor plop), echocardiogram with Doppler study, Chest CT scan, heart MRI, heart angiography, EKG, blood tests, histological evaluation. Untreated, it can lead to heart failure and/or an embolism or mitral stenosis-like symptoms and sudden death. The gold standard of therapy is represented by surgically excision.

### Palpitations!!!

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Introduction:** Marfan syndrome (MF) is a rare inherited disease due to a defect in the gene that encodes the structure of fibrillin of connective tissue. Marfan subjects can develop aortic aneurysm, aortic dissection or rupture with possible death and arrhythmia due to mitral valve prolapse (MVP) or cardiomyopathy. Diagnosis is made on the basis of history, clinical picture, chest X-ray, EKG and echocardiogram.

**Case report:** A 42-year old male slender patient with long and narrow arms, legs, fingers and toes was admitted to our Dept because of dyspnoea, asthenia, anxiety, chest pain, precordial discomfort and cardiopalmus. At history Marfan disease diagnosed at the age of 26 y and surgical treatment of thoracic aorta aneurism with aortic prosthesis placement at 30 y. At cardiac evaluation normal B.P., presence of mitral murmur, at EKG evidence of Paroxysmal Supraventricular Tachycardia (PSVT), at echocardiogram presence of MVP, but no aortic prosthesis dislocation. Laboratory data showed slight leukocytosis but normal cardiac enzyme assay. He treated on adenosine 2 mg iv recovered immediately due to resolution of tachycardia and normalization of EKG.

**Discussion:** Left ventricular arrhythmia can be the cause of sud-

den death in Marfan patients who must be ever treated on Adenosine, Propranolol or Verapamil and/or radiofrequency ablation in relapses, while it is necessary avoid vagal manouver which, increasing the intrathoracic pressure and baroreceptor stimulation, could cause a potential catastrophic and often lethal acute aortic dissection or rupture!

### A mother's broken heart case...

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Introduction:** Broken Heart Syndrome (BHS), also called by Japanese Authors Tako-Tsubo syndrome due to the resemblance of the end-systolic left ventricular angiogram to an octopus (tako) trap (tsubo), is a cardiomyopathy characterised by transient abnormal wall motion of the mid and apical segments of the left ventricle resulting in an apical ballooning, absence of coronary artery disease, ST-T abnormalities at EKG, often triggered by emotional or physical stresses. The BHS mimics an acute coronary syndrome with anginal chest pain, ischemic EKG alterations, increase of CPK and/or TPN.

**Case report:** A 72-year old woman was admitted to our Dept for chest pain due to her son's death. At cardiovascular evaluation: BP 145/95 mmHg; HR 60 b/m; EKG showed initially 1 mm ST segment elevation in II, III, avF, V3-V6 leads and later T wave inversion. Blood samples revealed a peak of TPN I of 7.3 ng/dl! She was treated on aspirin and heparin and submitted to angiography which showed the apical ballooning, with no any coronary alterations. The myocardial contrast echocardiogram showed a large perfusion defect in the akinetic apical region of the left ventricle as in BHS. The patient was discharged home on aspirin and Ace-inhibitor and 6 months later she remained completely asymptomatic.

**Discussion:** Microvascular dysfunction and catecholamine-mediated myocardial stunning are the two pathophysiologic mechanisms hypothesized in BHS. Luckily, fatality from Tako-Tsubo cardiomyopathy is very rare and the left ventricular dysfunction usually disappears within several weeks.

### The unfulfilled dream of a young soccer-player!!!

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Introduction:** Brugada syndrome (BS) is an inherited disease (with autosomic dominant pattern or due to new mutations), characterized by relapsing syncopal episodes or sudden death (due to fast polymorphic ventricular tachycardia or ventricular fibrillation) in patients with a structurally normal heart and characteristic electrocardiographic pattern: ST segment elevation in the precordial leads V1 to V3, with a QRS complex morphology resembling a right bundle branch block.

**Case report:** A 23-year-old man, soccer-player, was admitted to our Dept due to repeated episodes of syncope. At history consanguineous parents, father dead at 44 y for sudden death and one brother dead in childhood for mysterious reasons. At cardiologic evaluation normal BP, body T, HR while at EKG there was presence of segment elevation in the precordial leads V1 to V3, with a morphology of the QRS complex resembling a right bundle branch block. Normal resulted chest-X-ray and troponin I. We suspecting a case of BS, transferred our patient to Heart Intensive Care Unit where he experimented sudden ventricular tachycardia which was immediately treated on electric cardioversion and amiodarone intravenously obtaining complete recovery and where 4 days later he underwent to defibrillator implantation.

**Discussion:** The genetic abnormalities linked to BS (SCN5A gene defect), points to it being a primary electrical disease, thus the

only available treatment is the implantable cardioverter-defibrillator which can effectively recognize and treat the sudden and often fatal ventricular arrhythmias!!!

### The pitfalls of plastic surgery!

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania, <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Background:** Progressive multifocal leukoencephalopathy (PML) due to JC virus, is a rare and fatal disease characterized by progressive brain white matter damage or inflammation, which affects almost exclusively subjects with weakened immune system (AIDS, chemotherapy, immunosuppressive drugs).

**Case report:** A 53-year old woman was admitted to our Dept for onset of dyspnoea and fever in the last days. At history many plastic surgical treatments (to lips, face, abdomen, breasts) and recently diagnosed as PML (JC virus test) with rapid and progressive neurological outcome. She presented polyphonic, dyspnoic with fever, cyanosis and cardiorespiratory failure signs rapidly worsening and becoming soporous and anuric. At cardiac evaluation presence of mitral murmur, normal EKG and BP. Chest-X-ray showed evidence of bilateral pneumonitis. Gas analysis: pO<sub>2</sub> 40mmHg, pCO<sub>2</sub> 110 mmHg, pH 7.2! Laboratory data: slight anaemia and leukocytosis; rise of urea, creatinine, AST, ALT, GT, ESR, positive the haematological test and the sputum examen for Streptococcus pneumoniae. Echocardiography: mitral valve insufficiency and pulmonary hypertension signs. Our patient's golden therapy was based on antibiotics, antimycotics, steroids, C-PAP treatment and high doses of furosemide.

**Discussion:** The JC virus usually enters the bloodstream during childhood probably through urine-oral contamination and can remain latent in brain. We hypothesize that the many plastic surgical treatments could have played an important role in JCV re-activation inducing the catastrophic PML in our unlucky patient.

### Twist of fate: story of a literate woman....

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome, Italy

**Introduction:** Alzheimer disease (AD) is a neurodegenerative disorder of uncertain cause and pathogenesis which primarily affects older adults, which is clinically characterized by selective memory impairment. Currently there is no cure or disease-modifying therapy, and the disease inevitably progresses in all patients, who generally succumb to terminal-stage complications (dehydration, malnutrition, infection).

**Case report:** A 71 year-old woman, who had been a scholar in her youth, but with dementia since 5 years, was admitted to our Dept for sudden crisis of aggressiveness against her husband who was tempting to steal her a book. She was by now completely non-communicative and nonresponsive, refusing her medications, saying rarely a single not appropriate word, in spite of her long career of professor. Brain CT-scan no pointed out any further anatomical damage. Thus, we decided to observe the patient's behaviour with books and let her to read them. Two days later she improved dramatically starting again to get up, to walk, talking some, being feeding herself and interactive, reading words in books, asking questions, eating by herself all of her food. She continued to ameliorate in motor function, verbal response and old memory.

**Discussion:** In spite of common beliefs many Alzheimer's patients find comfort in books. Reading can improve the patient's quality of life, since the meanings of written sentences can be understood by even those who have difficulty handling verbal exchanges. People who were literate maintain their ability to read until the end stages of dementia.

### A late bad surprise....the Adamkiewicz's syndrome!

G.A. Piccillo<sup>1</sup>, R. Saitta<sup>2</sup>, E.G.M. Mondati<sup>3</sup>, G. Gasbarrini<sup>4</sup>

<sup>1</sup>Emergency Department, Cannizzaro Hospital of Catania; <sup>2</sup>Department of Emergency Medicine and Surgery, Cannizzaro Hospital of Catania;

<sup>3</sup>Department of Internal Medicine and Systemic Pathologies, University of Catania; <sup>4</sup>Professor Emeritus of Internal Medicine, Catholic University of Rome

**Background:** The Adamkiewicz syndrome (AS) is characterised by Paraplegia or paraparesis occurring as a complication of thoracic or thoraco-abdominal aortic aneurysm repair due to damage the artery of Adamkiewicz with consequent loss of urinary and fecal continence and impaired motor function of the legs. Many cases of spinal cord ischaemia following the surgical procedure fining rise to paraplegia, sphincter incontinence and often sensory loss are reported. Complete recovery is uncommon and awareness and prevention remains the mainstay of therapy.

**Case report:** A 78-year old male patient was admitted to our Dept for sudden onset of weakness in his legs. At history hypertension, diabetes, surgical thoraco-abdominal aortic aneurysm repair two years before. Nothing important at cardiovascular, respiratory, abdomen, urogenital evaluation and at laboratory data. Normal chest-X-ray, EKG and echocardiography. A CT-angiogram showed no signs of aorta thrombosis or dissection, while the spinal MRI scan disclosed a high intensity lesion in the grey matter extending from C3 to C5. Diagnosed with anterior spinal artery ischaemia due to dissection of a distal vertebral artery he was treated on 300 mg aspirin and luckily three days later he improved dramatically.

**Discussion:** Unluckily, being so tragically unpredictable and random, spinal cord ischaemia after aortic abdominal operations appear to be an unpreventable event. Treatment is determined based on the primary cause or anterior cord syndrome though often the prognosis is unfortunate being the mortality rate approximately 20%.

### Caroli disease: clinical case peculiarity

A. Piccioni<sup>1</sup>, M. Danti<sup>2</sup>, M. Mazzone<sup>3</sup>, G. Ciocci<sup>4</sup>, E. Mici<sup>3</sup>, L. Pietropaolo<sup>3</sup>, C. Mandolini<sup>3</sup>, C. Sighieri<sup>3</sup>

<sup>1</sup>DEA Ospedale Vannini, Roma; <sup>2</sup>Radiologia, Vannini, Roma; <sup>3</sup>DEA Vannini, Roma, <sup>4</sup>Medicina Interna Gemelli, Roma

**Objective:** Caroli disease is a rare disorder characterized by the sacular segmental dilatations of the intrahepatic bile ducts communicating with the principal biliary tract, without concomitant histological anomalies in the liver parenchyma. The clinical expression occurs with the development of the complications related to the bile stasis.

**Methods:** A woman was admitted to our Hospital because of left flank pain. She reported widespread abdominal pain in the left flank associated with nausea and vomiting in the ER. The diagnostic sonography showed that the volume of the liver was higher than normal with the obvious presence of multiple cystic formations. The principal biliary duct, detected in its proximal portion, showed an increased caliber. The intrahepatic biliary ducts were dilated. Both kidneys showed several cystic formations, which altered the dimensions and the ecostructure of both kidneys *in toto* in a polycystic kidney disease.

**Results:** During the observation we have witnessed the gradual improvement of the symptomatology, so the patient was discharged with a diagnosis of renal colic, lithiasis of the urinary tract in a polycystic kidney, chronic renal failure and multicystic dilatation of the intrahepatic bile ducts with medical therapy.

**Conclusions:** Therapeutic behaviour recommends in the first instance some cycles of antibiotic therapy to hinder the rare cholangitis episodes and extracorporeal lithotripsy then to pass to the more radical one of the hepatic section when the symptomatology becomes ingravescens and only one lobe is interested.

### Il farmacista ospedaliero di reparto, l'internista e l'antimicrobico stewardship

V. Picerno<sup>1</sup>, M. Errico<sup>1</sup>, V. Longobardo<sup>1</sup>, F. Mastroianni<sup>1</sup>, V. Tagarielli<sup>1</sup>, C. Larenza<sup>1</sup>

<sup>1</sup>Ente Ecclesiastico Ospedale Generale Regionale "F. Miulli", Acquaviva delle Fonti (BA), Italy

**Premesse e Scopo dello studio:** Ottimizzare l'utilizzo delle risorse disponibili è uno degli obiettivi delle Aziende Sanitarie. Ad esempio, la gestione corretta delle infezioni può essere guidata da programmi aziendali multidisciplinari e condivisi di "politica antibiotica".

**Materiali e Metodi:** È stato attivato un protocollo di collaborazione (luglio-dicembre 2016) tra il Farmacista Ospedaliero ed i Medici del Reparto di Medicina Interna dell'Ospedale, per il monitoraggio delle terapie antibiotiche.

**Risultati:** Il lavoro del team ha portato alcune importanti modifiche alle terapie. 24 trattamenti sono stati sospesi dopo una rivalutazione del paziente da parte del medico: 12 trattamenti con teicoplanina 200mg, 6 con piper/tazo 4.5 g, 3 con meropenem 1g e 3 con vancomicina 0.5 g. È stata concordata la riduzione della posologia in 12 pazienti (9 di questi a causa di insufficienza renale). Per 6 pazienti, il Farmacista ha proposto un cambio della molecola prescritta. Infine, è stata ridotta la durata di 24 terapie e di 36 profilassi chirurgiche. Il risparmio totale ottenuto è di 6.291,9 €. Nel contempo, sono stati intercettati alcuni errori di terapia. Tra questi 15 terapie sottodosate (6 trattamenti con teicoplanina 200 mg, 6 con meropenem 1g e 3 con meropenem 0.5g) che sono state corrette aumentando la posologia e in alcuni casi riducendo la durata.

**Conclusioni:** L'analisi dei risultati dimostra che la presenza del Farmacista Ospedaliero di Reparto che collabora con i Medici all'Antimicrobial Stewardship migliora l'appropriatezza della prescrizione e incide sui costi.

### Switch therapy antibiotica nel reparto di Medicina Interna

V. Picerno<sup>1</sup>, M. Errico<sup>1</sup>, V. Longobardo<sup>1</sup>, F. Mastroianni<sup>1</sup>, V. Tagarielli<sup>1</sup>, C. Larenza<sup>1</sup>

<sup>1</sup>Ente Ecclesiastico Ospedale Generale Regionale "F. Miulli", Acquaviva delle Fonti (BA), Italy

**Premesse e Scopo dello studio:** Le malattie infettive rappresentano importanti cause di morbilità e mortalità, con un notevole impegno di risorse umane ed economiche. Numerosi studi documentano l'efficacia clinica ed il risparmio economico della "switch therapy" antibiotica (passaggio dalla somministrazione endovenosa a quella orale). La collaborazione fra medico di reparto e farmacista ospedaliero può essere utile ad ottimizzare le scelte.

**Materiali e Metodi:** Nel periodo di osservazione (ottobre 2015-luglio 2016) un farmacista ospedaliero ha affiancato i Medici della UOC di Medicina Interna con l'obiettivo, tra gli altri, di stimolare il passaggio della terapia antibiotica dalla formulazione endovenosa a quella orale.

**Risultati:** Durante lo studio, lo switch da endovenosa ad orale è stato del 37.6% (50 pazienti su 133 pazienti candidabili a switch EV/OS), in aumento sino al 77.8% di luglio. Si è incrementato l'uso di antibiotici presenti in prontuario sia con la formulazione ev che con quella orale, in modo da favorire lo switch. Inoltre, si è ottenuta la contemporanea riduzione delle terapie alle quali non poteva essere applicato lo switch (da 53.1% di ottobre, a 26.9% di maggio) e l'incremento del numero di terapie iniziate direttamente con la somministrazione orale (da 3.1% di ottobre, a 23.1% di maggio).

**Conclusioni:** La presenza di un farmacista di reparto può contribuire all'ottimizzazione della terapia antibiotica e può indicare quali molecole inserire nel Prontuario Terapeutico Ospedaliero al fine di favorire anche la switch therapy e razionalizzare le risorse.

### The importance of the appropriate care setting to ensure patient's taking charge and health care quality: a retrospective observational study in Lombardy

F. Pietrantonio<sup>1</sup>, A.R. Bussi<sup>1</sup>, O. Meneghetti<sup>1</sup>, L. Tonoli<sup>1</sup>, P. Aperti<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, P.O. Manerbio (BS), ASST-Garda, Italy

**Background:** In Lombardy socio-health care reform (LR 23/2015) implementation is essential patients stratification, care setting definition, hospital-territory paths junctions.

**Methods.** To define: 1. Internal Medicine (IM) patients' characteristics; 2. IM role in complex patients paths; 3. alternative organizational models to improve performances, a retrospective observational study has been realized by Manerbio IM (ASST-

Garda). After a Literature review, MEWS (Modified Early Warning Score), CIRS (Cumulative Index Rating Scale), Care Intensity Index (IIA) were chosen. Medical records (MR) of all patients consecutively admitted to Manerbio IM from 1.1.16 to 31.3.16 were analyzed.

**Results:** 393 patients: 199 M/194 F (total discharged: 483), median age 81 years. 93% >70 years, 37% >85 years. Critically ill patients (needing continuous monitoring): 27% (10% with MEWS>5, needing Intensive Care Unit). Comorbidity (measured by CIRS-CI): 5-6 active diseases, 53% with CIRS 7-12. Intensity of care (IIA) high (3-4) in 46% throughout the length of hospital stay (LOS). Average LOS: 9.35 days. Outcome: 64% discharged at home; 10.7% deaths; 23% with social problems (transferred to sub-acute units, nursing homes-RSA, Hospices, Integrated Home Care-ADI-activation) 2.3% referrals.

**Conclusions:** 1. 27% of IM patients need monitoring and intensive assistance. Is currently starting a randomized study using wireless monitoring in IM to demonstrate that adequate acute patients care reduces complications, LOS and hospitalization costs. 2. 23% of patients present social problems for which integrated paths could minimize LOS.

### Who makes the diagnosis? A retrospective observational study comparing the Emergency Department initial diagnosis and the Internal Medicine discharge diagnosis

F. Pietrantonio<sup>1</sup>, E. Scotti<sup>2</sup>, E. Alessi<sup>2</sup>, M.G. Leardi<sup>2</sup>, F. Gerardi<sup>2</sup>, M. Rainone<sup>2</sup>, E. Vesprini<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, P.O. Manerbio (BS), ASST-Garda; <sup>2</sup>U.O. Medicina Generale INI (Istituto Neurotraumatologico Italiano), Grottaferrata (Roma), Italy

**Background:** Despite Internal Medicine (IM) central role in emergency admissions management, users and health programmers seems don't know IM distinctive features. According to Literature, IM role is characterized by: 1. Acute, critical, poly-pathologic and complex patients management; 2. Difficult clinical diagnosis; 3. Priorities' identification; 4. Hospital-territory paths promotion integrating different specialists activities.

**Objectives:** To determine the proportion of correct and missed emergency department (ED) diagnoses compared to IM discharge diagnoses.

**Methods:** ED diagnoses and hospital IM discharge diagnoses were compared using evaluation grid realized with consensus among experts method. Final diagnosis at IM discharge was taken to be the correct "gold standard" diagnosis (GSD).

**Results:** 317 nontrauma patients presenting to the ED from June to September 2016 and admitted to INI (Italian Neurotraumatologic Institute) IM department were included for final analysis. In 180 patients (56.7%) GDS corresponded to primary ED diagnosis, in 104 patients (32.8%) GDS was missed. The most frequent final diagnoses were cardiac failure (n=53), pneumonia (n=43), TIA (Transient Ischemic Attack) (n=31); respiratory failure (n=28); COPD (Chronic Obstructive Pulmonary Disease) (n=21), correctly diagnosed at the ED in 37, 26, 19, 20 and 11 patients, respectively.

**Conclusions:** Patients presenting at ED represent a diagnostic challenge clarified in 32,8% by IM hospitalization. The study confirms the central role of IM in correct diagnosis definition in acute and complex patients.

### Acute hepatitis during apixaban treatment for atrial fibrillation in a patient affected by chronic hepatitis C infection

F. Pileri<sup>1</sup>, D. Arioli<sup>2</sup>, F. Pellicciotti<sup>3</sup>, V. Cesareo<sup>4</sup>, M. Casella<sup>3</sup>, D. Galimberti<sup>2</sup>, M.L. Davoli<sup>3</sup>, G. Fornaciari<sup>4</sup>

<sup>1</sup>Medicina Interna 2, Policlinico di Modena; <sup>2</sup>Medicina Cardiovascolare, Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>3</sup>Geriatrics, Arcispedale Santa Maria Nuova, Reggio Emilia; <sup>4</sup>Medicina Gastroenterologica, Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

Analyses of clinical studies suggest that Drug Induced Liver Injury (DILI) with DOACs is rare and idiosyncratic, appears at therapeutic dose and can't be explained by the pharmacological action of drugs. However, results couldn't apply to patients with active liver disease because these subjects were excluded from trials. A 78-

year-old man, on apixaban therapy (5 mg bid) for AF, was admitted to geriatric ward for heart failure (HF). He was affected by chronic HCV hepatitis, genotype 2, never treated. At admission laboratory results showed: PT RATIO 2.20, aPTT Ratio 1.86, total bilirubin 5.6 mg/dL, AST 390 and ALT 501 IU/L. Abdominal ultrasonography revealed no ascites, splenomegaly or portal vein thrombosis. Cardiac dysfunction seemed to play a marginal role in liver damage because the patient reported a few previous hospitalizations for HF without elevation of liver enzymes (LE). Serological investigation for hepatotropic viruses resulted negative. There was no history of alcohol and herbal product use. The hypothesis was an acute hepatitis due to apixaban so it was suspended and LE spontaneously improved. After six weeks DILI was solved and dabigatran 110 mg bid started. The frequency of DILI associated with DOACs appears to be too low to recommend routine monitoring of liver function but hepatotoxicity is possible, in particular in patients with liver disease and/or in subjects taking potentially hepatotoxic drugs. Case reports and pharmacovigilance data are necessary to establish actual event rates and identify risk factors that might lead to proper risk management.

### An unusual gastroenteritis...not only electrolyte disorders

M. Piscaglia<sup>1</sup>, F. Dazzani<sup>1</sup>, M.L. Bucchi<sup>1</sup>, M. Ronchi<sup>1</sup>, G. Resta<sup>2</sup>, P. Giacomoni<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale Umberto I, Lugo (RA); <sup>2</sup>U.O.C. Medicina Interna, Ospedale Santa Maria delle Croci, Ravenna, Italy

**Background:** West Nile virus (WNV) is RNA Flaviviridae transmitted by Culex sandflies. Middle-east Africa and east Europe are particularly affected. In Europe in 2016 were reported 214 cases; 68 in Italy.

**Case report:** A 56-year-old woman was admitted to hospital because of vomit, diarrhea and fever associated with fatigue and anorexia. Laboratory testing revealed hypokalemia (2,6mEq/L) and mild hyponatremia (131mEq/l). Others hematologic tests (inflammatory markers, coagulation, renal and liver function) were normal. After three days diarrhea, fever and electrolyte disorders resolved, but not fatigue, cognitive difficulties and anorexia. Neurological examination was negative for polyneuropathy or meningeal signs, so was prescribed SSRI. Because of persistent symptoms, we submitted patient to brain CT, negative for acute disease and to EEG that proved diffuse slowing and left paroxysmal activity. We continued investigations with MRI that showed diffuse leukoencephalopathy and with lumbar puncture. CSF revealed moderated pleocytosis with a predominance of lymphocytes; PCR for WNV was positive. There are no specific therapies; patient improved in the following months. By history we knew that patient had recently bought pet birds, that are amplifying host.

**Conclusions:** Most persons infected with WNV are asymptomatic. Self-limited symptoms like fever, myalgias, diarrhea, cutaneous rash are seen in 20% of patients; only about 0,5% develop neuroinvasive disease. In presence of neurologic impairment only MRI and lumbar puncture can lead to a diagnosis.

### Refeeding syndrome in frail elderly patient

M. Pivari<sup>1</sup>, P. Gnerre<sup>1</sup>, G. Carta<sup>1</sup>, A. Cattana<sup>1</sup>, G. Damonte<sup>1</sup>, M. Alice<sup>1</sup>, L. Parodi<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, San Paolo Hospital, Savona, Italy

The refeeding syndrome may occur in severely malnourished or after prolonged fasting patients. It may cause fatal complications. During fasting gluconeogenesis is activated, during refeeding insulin level increases which causes cellular shift of P, K, Mg, H<sub>2</sub>O and volume overload. Complications are cardiovascular, muscular, gastrointestinal, neurological. Woman 86 years old, hospitalized for cachexia. In Parkinson's disease history, GERD with esophageal stenosis, atrial fibrillation, lives alone assisted by a care giver and is malnourished since months. Objectively: cachexia, motor slowing, peripheral edema. Weight: 35 Kg BMI 16. Tests: microcytic hypochromic anemia, lower values of total protein, albumin, P, Mg, K, prothrombin time. Prealbumin: 10.4 mg/dl (20-40 n.v.) confirms the severe malnutrition. Normal values of AST, ALT, creatinine. RX chest: bilateral hilar congestion, brain CT: chronic vascular en-

cephalopathy. Good clinical response after medical therapy. Examination by a speech therapist: needs to be fed with soft food. During the second and third day it improved, eats hungrily. Sudden worsening the next day: agitation appears, confusion, dyspnea, cyanosis in legs (excluding arterial occlusions), hypotension. Laboratory tests: AST and ALT ten times higher than the norm, the indexes of muscle cytolysis increased: CK 6110 U/l (at first 70 U/l), CK-MB 84.5ng/ml (0.6-6.3 n.v.) and myoglobin 28880 ng/ml (14-66 n.v.) indicate severe rhabdomyolysis, normal values of Tnl. Acute renal failure and seizures appear. Despite supportive care, conditions worsen until death.

### Suggestive neuroimaging in Internal Medicine

A.M. Pizzini<sup>1</sup>, D. Galimberti<sup>1</sup>, M.C. Leone<sup>1</sup>, G. Farioli<sup>1</sup>, A. Muoio<sup>1</sup>, M. Granito<sup>1</sup>, A. Ghirarduzzi<sup>1</sup>

<sup>1</sup>Centro Emostasi e Trombosi Medicina II, ASMN, Reggio Emilia, Italy

**Introduction:** Prolactin (PRL)-secreting adenomas are classified into micro (<10 mm) and macroadenomas which usually measure 10-40 mm. Giant prolactinomas larger than 60 mm are very rare (2-3%). These ones have an invasive behaviour with extrasellar extension, often involving the sphenoid sinus, nasal cavity, brain stem, cavernous sinuses, optic tracts and the third and fourth ventricles. Severe neurologic and cognitive consequences of giant tumors are common at presentation reflecting the invasive behaviour of the tumor. Different neurologic symptoms including epilepsy, dementia and hydrocephalus have been reported.

**Case report:** A 75-year-old woman was hospitalized for cognitive deterioration and legs weakness. In the past months she also reported impaired vision and frequent falls. At neurological examination she had only an alteration of the visual field. CT scan and MRI documented a giant prolactinoma extended to sphenoid sinuses, ethmoid and basal coana, cavernous loggia and medial portion of the middle cranial fossa, incorporating the carotid syphon and the proximal tract of middle cerebral artery; it reached the tentorium and ponto-mesencephalic cistern, with anterior cranial development, towards the frontal horns of the lateral ventricles. The PRL values were >2000 ng/ml. She therefore started treatment with Cabergoline, slowly improving cognitive function after one month.

**Conclusions:** Giant prolactinomas may have a good response to Cabergoline and the mass reduction and the PRL levels lowering can also lead to a cognitive disorders regression.

### Stroke in factor VII deficiency

A.M. Pizzini<sup>1</sup>, M.C. Leone<sup>1</sup>, D. Galimberti<sup>1</sup>, M. Granito<sup>1</sup>, A. Muoio<sup>1</sup>, G. Malferrari<sup>2</sup>, A. Ghirarduzzi<sup>1</sup>

<sup>1</sup>Centro Emostasi e Trombosi Medicina II, ASMN, Reggio Emilia; <sup>2</sup>Stroke Unit, ASMN, Reggio Emilia, Italy

**Introduction:** Thrombosis can rarely occur in patients with rare inherited bleeding disorders, typically in the presence of a thrombotic risk factor such as surgery, replacement therapy, lupus anticoagulant positivity.

**Case report:** A 49-year-old man developed right hemiplegia and aphasia after bilateral total hip arthroplasty for severe arthrosis. He was affected by congenital factor seven (FVII) deficiency (20-30%) with a low bleeding tendency; he hadn't any other cardiovascular risk factors. He was treated preoperatively with recombinant FVII (30 U/Kg) without bleeding, followed by prophylaxis with Enoxaparin 4000 U qid. Eight hours after surgery a stroke, caused by occlusion of the middle cerebral artery (M1), occurred, damaging the left fronto-temporo-insular region and caudate nucleus. The patient was treated with mechanical thrombectomy with recanalization and improvement of motor symptoms, with a residual dysarthria. The following diagnostic procedures lead to the diagnosis of a bilateral lower limbs distal venous thrombosis and a wide patent foramen ovale (PFO). The paradoxical embolism and the congenital bleeding diathesis were indications to PFO closure.

**Conclusions:** Moderate FVII deficiency do not protect against thrombosis; in our patient the cerebral ischemia had a multifactorial etiology: the prothrombotic state induced by surgery



and by FVII infusion led to lower limbs venous thrombosis and to paradoxical embolization through the wide PFO.

### Another rare risk factor for cerebral sinus venous thrombosis

A.M. Pizzini<sup>1</sup>, D. Galimberti<sup>1</sup>, M.C. Leone<sup>1</sup>, A.M. Casali<sup>1</sup>, D. Arioli<sup>1</sup>, G. Malferrari<sup>2</sup>, A. Ghirarduzzi<sup>1</sup>

<sup>1</sup>Centro Emostasi e Trombosi Medicina II, ASMN, Reggio Emilia.; <sup>2</sup>Stroke Unit, ASMN, Reggio Emilia, Italy

**Introduction:** Intracranial hypotension (IH) is secondary to cerebrospinal fluid (CSF) leakage, with or without a dural damage. CSVT has occasionally been described in patients with IH and several mechanisms can explain this association: decreased blood flow velocity by venous engorgement and dilatation; venous endothelium damage induced by negative intracranial pressure gradient; finally increased blood viscosity due to CSF reduced absorption. These can be added to risk factors related to the patient: hereditary thrombophilia, pregnancy or contraceptive use, prothrombotic drugs and cancer.

**Case report:** A 44-year-old woman was hospitalized for worsening headache. She was affected by peritoneal pseudomyxoma surgically treated and now in chemotherapy (Capecitabine and Bevacizumab). She suffered from headaches and vomiting aggravated by orthostatic position. The cerebral MRI and lumbar puncture excluded meningeal carcinomatosis and a diagnosis of CSF hypotension was made. A blood patch procedure was performed without benefit and a subsequent cerebral CT scan documented a CSVT extended from sagittal upper venous sinus to right internal jugular vein, consistent with the symptoms. She began subcutaneous heparin with improvement of headache.

**Conclusions:** The CSVT is a multifactorial condition determined by local and generalized risk factors: the thrombophilic substrate linked to cancer and the concomitant treatment with prothrombotic drugs, as well as the associated venous stasis induced by IH. IH therefore, spontaneous or acquired, can be considered a risk factor for CSVT.

### Therapeutic education for administration of insulin therapy: evaluation of a nursing multilingual tool

S. Ponzio<sup>1</sup>, A. Bosio<sup>2</sup>, A.M. De Rossi<sup>3</sup>, I. Ginosa<sup>3</sup>, A. Esposito<sup>4</sup>, R. Trepiccioni<sup>5</sup>, C. Pascale<sup>2</sup>

<sup>1</sup>Ortopedia, Ospedale Ciriè, Ciriè (TO); <sup>2</sup>Medicina Interna, Ospedale Cottolengo, Torino; <sup>3</sup>Centro Formazione, Ospedale Cottolengo, Torino; <sup>4</sup>Ambulatorio Diabetologia, Ospedale Mauriziano, Torino; <sup>5</sup>Ambulatorio Diabetologia, Ospedale Maria Vittoria, Torino, Italy

**Introduction:** Insulin pen is an increasingly used device that requires proper teaching by nurse. A multilingual brochure could be effective in educational path in addition to usual teaching, in particular with foreign people. Study objective: acceptance assessment of multilingual brochure used for teaching insulin pen use in adults with type 2 diabetes. Brochure gives advices in Italian, English, Romanian, Arabic language about injective technique (proper hand hygiene; how to select correct dose and dispense drug; choice and rotation of injection site) and hypoglycemia.

**Methods:** Observational-descriptive study. Outpatient survey to evaluate brochure: 6 close question items (4 point Likert scale: 1=not at all 4=very much) plus spaces for suggestions. Items were: 1.clarity of content, 2.exhaustiveness of content, 3.need for integration, 4.clarity of figure, 5.usefulness, 6.reported behavioural changes. Data analysis was performed (descriptive analysis; t-test).

**Results:** 161 outpatients interviewed (Italian 63.4%; male 51.5%; age 59.4±8.6 years). Positive evaluation for item 1-2-4-5 (mean Likert score >3); behavioural changes in slightly more than 50% people (item 6); 90.7% people suggest further integration (item 3): layout improvement, larger figures, hypoglycemia deepening. No significant difference between populations (Italian/foreign, male/female) was shown.

**Conclusions:** Positive evaluations suggest brochure usefulness, but further study is needed to evaluate proper behavioural changes produced. Improved brochure, following given suggestions, will be used for this purpose.

### How to detect small bowel neoplasms: clinical utility of bowel loops sonography

L. Porretti<sup>1</sup>, G. Carnevale Maffè<sup>1</sup>, C. Zaninetti<sup>1</sup>, P. Formagnana<sup>1</sup>, C. Balduini<sup>1</sup>

<sup>1</sup>Department of Medicine, IRCCS Policlinico San Matteo Foundation, University of Pavia, Italy

**Case report:** A 37-year old man with history of non-Helicobacter pylori related bleeding gastric ulcer was admitted for epigastric pain, malaise, and sideropenic anemia. A previous esophagogastroduodenoscopy (EGDS) was negative. Laboratory tests showed modestly increased Chromogranin A, normal CEA and CA 19.9 values, absence of Coeliac disease and/or Inflammatory bowel disease-related autoantibodies. Bowel-loops sonography revealed a 6 cm hypoechoic tract of proximal small bowel with a small lumen, significant wall thickening and complete loss of the multilayer pattern. The color-power-Doppler examination also detected abnormal flow signals suggesting neoplastic disease. Moreover, ultrasound showed two metastatic hypoechoic mesenteric lymph nodes characterized by severe increased vascular signs too. These findings were completely confirmed by abdominal CT scan; no pathological involvement of other organs was found. EGDS finally revealed at the inferior duodenal flexure a 5 cm ulcerated bleeding lesion, which was biopsied: small bowel adenocarcinoma was the histological diagnosis. Because of the extended local invasion, surgical treatment failed to be decisive.

**Conclusions:** As small intestinal neoplasm is a rare disease, its investigation usually represent a challenge for clinicians. Despite bowel loops sonography doesn't represent gold standard approach in detecting small bowel neoplasms, it has got a great clinical usefulness. Indeed this imaging technique can be able to reveal some morphological findings, which can significantly guide the diagnostic work-up.

### Münchhausen syndrome: a diagnostic challenge for the internist

L. Porretti<sup>1</sup>, D. Dell'Aera<sup>1</sup>, M. Tonani<sup>1</sup>, M. Piombo<sup>1</sup>, E. Marchesi<sup>1</sup>

<sup>1</sup>SC Medicina Generale 2, Dipartimento Area Medica, Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

**Introduction:** Munchausen syndrome is a factitious disease completely caused by the patient who play the role of a sick person. Usually it involves self-inflicted trauma, infections and metabolic disorders.

**Case report:** A 46-year old man with history of drug addiction and several admissions to different hospitals in the last three years, came to our attention for fever, anemia and hematuria. In 2013 he underwent gastrectomy for angiodysplasia. The patient developed many episodes of high fever without significantly changes in inflammatory markers levels; also immunological tests (lymphocyte phenotype, serum immunoglobulins) were normal. Urine examination, cytology and fecal occult blood resulted all negative. After microbiological examinations, empiric antibiotic therapy was started. First blood culture set was positive for *Citrobacter freundii*, the second one for *Aeromonas hydrophila* and the last one showed some different kind of bacillus species suggesting fecal contamination. Imaging investigations (abdominal ultrasound, MRI and enterography CT scan) didn't identify any source of infection. All peripheral intravenous devices were removed to avoid self-manipulation. Surveillance blood cultures were constantly negative. Psychiatric consultation revealed a mental distress and personality disorder, confirming our suspicion of fecal sample injection.

**Conclusions:** Detecting factitious diseases is a complex process. Although Munchausen syndrome is luckily uncommon, its early diagnosis is beneficial in order to prevent unnecessary investigation and prolonged hospitalizations.

### Clinical features of adrenal dysfunction in stable cirrhosis

G. Privitera<sup>1</sup>, A. Giuseppe<sup>2</sup>, A. Sciuto<sup>1</sup>, S. Marchisello<sup>1</sup>, G. Meli<sup>1</sup>, G. Fedè<sup>1</sup>, M. Attanasio<sup>1</sup>, F. Purrello<sup>1</sup>, L. Spadaro<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Clinica e Sperimentale, Ospedale Garibaldi-

Nesima, Catania; <sup>2</sup>Dipartimento di Scienze Economiche, Aziendali e Statistiche, Università di Palermo, Italy

**Background and Aims:** To evaluate the clinical features of hepato-adrenal syndrome in cirrhosis and to assess the short-term survival of the enrolled patients.

**Methods:** 60 stable cirrhotics were enrolled and followed for 3 months. Adrenal function was assessed using the Low-Dose short synacthen test. Normal adrenal response was defined as a peak cortisol >18 µg/dl. The symptoms of adrenal insufficiency were evaluated by the administration of a clinical questionnaire. All available electrocardiograms were evaluated. Biochemistry and plasma ACTH were also obtained.

**Results:** Adrenal insufficiency was present in 22 patients. No difference was observed between the two groups in terms of severity of cirrhosis and for the major biochemical parameters evaluated. A difference was observed in terms of total and HDL cholesterol. Adrenal insufficient patients had lower ACTH and haemoglobin values with no difference in terms of ferritin, serum iron and erythropoietin. AP and platelet count were predictive parameters of adrenal insufficiency. HDL-cholesterol was an independent predictive factor of survival.

**Conclusions:** Patients with adrenal dysfunction showed an haematological impairment correlated to an insufficient erythropoietin production. The association between platelet count, AP and adrenal function, suggest a latent coagulopathy that may represent one of the pathologic mechanism of AI and may predispose patients to an increased number of haemorrhagic complications during stressful events.

### Scratching the surface. Giardiasis and tricks

F.R. Pugliese<sup>1</sup>, R. Schirripa<sup>2</sup>, S. Coassin<sup>3</sup>, F. Fabbri<sup>4</sup>

<sup>1</sup>Direttore Dipartimento Emergenza e Accettazione, Ospedale Sandro Pertini, Roma; <sup>2</sup>Responsabile Medicina d'Urgenza, DEA, Ospedale Sandro Pertini, Roma; <sup>3</sup>Dipartimento Emergenza e Accettazione, Ospedale Sandro Pertini, Roma; <sup>4</sup>XIV CFM, ASL RM2, Italy

**Background and Aim of the study:** To create awareness that giardiasis can mimic several acute and chronic clinical syndromes and result in missed diagnosis.

**Methods:** The case file of this presentation, that was misdiagnosed initially but later found to be *Giardia lamblia* infestation from laboratory stool results and responded to treatment for giardiasis, was reviewed.

**Results:** The case, about a 26-year-old Egyptian man, was initially diagnosed as acute peripheral edema induced by hypoalbuminemia secondary to malnutrition, due to social disadvantage and religious traditions. Additional research, performed to rule out other underlying causes of hypoalbuminemia, has led us to the identification of *Giardia* cysts in the stool and to the nodular lymphoid hyperplasia in the gut. These evidences drew attention to some type of immunodeficiency disorder, then proved by the analysis of immunoglobulin isotype levels.

**Conclusions:** *Giardia lamblia* infestation can show different clinical manifestations and can be suggestive of interesting clinical scenarios as celiac disease, selective IgA deficiency and common variable immunodeficiency. This case highlights the relevance for scratching the surface, diagnosing beyond prejudice, because sometimes ED clinicians have to deal with a zebra, despite the presence of hoof beats and whinny too.

### Bilateral breast metastasis from Epstein Barr virus - associated gastric carcinoma: a rare case in a pregnant caucasian woman

E. Qua Quarini<sup>1</sup>, F. Sottotetti<sup>1</sup>, M. Frascaroli<sup>1</sup>, A. Bernardo<sup>1</sup>

<sup>1</sup>Unità Operativa di Oncologia Medica, ICS Maugeri, IRCCS, Pavia, Italy

Breast metastases from extramammary sites have a cumulative incidence of 0.3- 2.7% among all malignant breast tumors. They have been more commonly described in relation to hematological malignancies and melanoma; however, also metastasis from lung, ovary, prostate, kidney and soft tissue sarcomas have been reported. Metastasis from gastric carcinoma occur seldom (<0.1% of breast carcinomas). During pregnancy, this event is

even rarer. We report the case of a 39 years - old Caucasian woman, with a preceding history of an Epstein Barr Virus associated (EBVaGC), c-erbB2 negative gastric carcinoma, treated with total gastrectomy, D2 lymph node dissection (pT3N2M0, stage III) and subsequent adjuvant chemotherapy (CT) with oxaliplatin and capecitabine in 2013. After a progression-free interval of 3 years, during her first pregnancy, she developed bilateral breast, abdominal lymph nodes and peritoneal metastasis. The patient received 1<sup>st</sup> line therapy with 8 cycles of cisplatin and 5-fluorouracil, obtaining a partial response. Several studies have identified a distinct clinical-pathological phenotype of EBVaGC, as patients tend to be younger, predominantly male, to have diffuse-type, c-erb B2 negative, lymphocyte-rich histology. No connection between EBV positivity and the development of breasts metastasis has been previously reported. We conjecture that during pregnancy hyperestrogenism could increase breast vascularity and contribute to site-specific metastasis development. To our knowledge, this is the first report of breast metastasis from EBVaGC during pregnancy.

### A "misleading" right basal lung pneumonia

M. Reduzzi<sup>1</sup>, P. Morbini<sup>2</sup>, M. Mussa<sup>3</sup>, A. Morea<sup>3</sup>, P. Orsolini<sup>3</sup>, A. Di Matteo<sup>3</sup>, C. Zaninetti<sup>1</sup>, C.L. Balduini<sup>1</sup>

<sup>1</sup>Department of Medicine, IRCCS Policlinico San Matteo Foundation, University of Pavia; <sup>2</sup>Department of Human Pathology, IRCCS Policlinico San Matteo Foundation, University of Pavia; <sup>3</sup>Department of Infectious Diseases, IRCCS Policlinico San Matteo Foundation, University of Pavia, Italy

**Case report:** A 41-year old patient was admitted to our department for fever, asthenia, and cervicalgia. Physical examination detected mild hepatomegaly, and reduction of vesicular breath sound at the inferior field of right lung. Laboratory tests revealed mild microcytic anemia, and a nonspecific elevation of inflammatory markers. Liver and renal function were normal. A chest x-ray showed a well-defined opacity within the right lung base, with homolateral diaphragm superelevation. Microbiological and serological investigations returned negative outcomes. A diagnosis of pneumonia was posed, and an empiric antibiotic treatment was started. Along the subsequent days, the general conditions showed a progressive worsening, with the persistence of fever and no modification of the radiological finding, even after setting a wide-spectrum antibiotic therapy. A careful re-evaluation of the chest x-ray images drew our attention to the profile of right diaphragm, which, although mingling into the basal opacity, appeared discontinuous and unusually bulging. A chest-abdomen CT scan identified a massive inhomogeneous round parenchymal lesion within the right hepatic lobe (diameter of 11 cm), associated to multiple confluent similar lesions, invading and apparently crossing the diaphragm. Histological analysis described a poorly differentiated adenocarcinoma.

**Conclusions.** A not superficial observation of an apparent simple radiological evidence - as a basal pneumonia - can note unexpected and subtle details, thus benefiting both involved patients and the efficacy of diagnostic work-up.

### A case of complex electrolytic disorder

M. Renis<sup>1</sup>, R.M. De Vecchi<sup>2</sup>, M. Marracino<sup>2</sup>, G. La Mura<sup>3</sup>, L. La Mura<sup>4</sup>, M.T. De Donato<sup>2</sup>

<sup>1</sup>U.O.C. Medicina, P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>2</sup>U.O.C. Medicina, A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>3</sup>Cardiologo, P.O. Scafati, A.S.L. Salerno; <sup>4</sup>Università Napoli "Federico II", Napoli, Italy

**Introduction:** Proton pump inhibitors drugs (PPI) are widely used. They often have some misunderstood or underestimated side effects.

**Clinical case:** F, 76. Hypertensive heart disease, WPW syndrome. Therapy: clopidogrel, beta-blockers, ACE inhibitors, statins, occasionally diuretics. Repeated previous hospitalizations, both in Internal Medicine and in Neurology department, complaining tremors, ataxia and acute psychiatric disorders, with a finding of hypocalcemia and hypokalemia, never adequately investigated. A

week before our observation: fast clinic deterioration after taking thiazide diuretic, following a cardiological control.

**November 2016:** ataxia, delirium with hallucinations, generalized tremors. Admission to Neurology department. She came to our observation in consulting. She showed low values of calcium, potassium and magnesium.

**Hypothesis:** chronically taken PPI can cause hypomagnesemia, first cause of complex and persistent electrolytic disorder. Stop to PPI: resolution of symptoms and normalization of electrolytes.

**Discussion:** This clinical case emphasizes the following highlights: Often neuropsychiatric manifestations are due to metabolic and/or electrolytic disorders; We should always evaluate all electrolytes, not only Na and K, particularly in presence of persistent neurological symptoms; Electrolyte disorders can often be iatrogenic, sometimes due to PPI.

**Conclusions:** PPI drugs are prescribed too frequently, even outside of guidelines, being deemed not harmful. Conversely, they often have some misunderstood and underestimated side effects.

### An unexpected anemia the day of hospital discharge...

G. Resta<sup>1</sup>, C. Bertoldi<sup>1</sup>, R. Di Agostino<sup>1</sup>, M. Piscaglia<sup>2</sup>, L. Rasciti<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale Santa Maria delle Croci, Ravenna

<sup>2</sup>U.O.C. Medicina Interna, Ospedale Umberto I°, Lugo (RA), Italy

**Background:** Drug induced immune hemolytic anemia (DIIHA) is a rare and severe cause of hemolysis. Incidence is estimated to be around 1 in 1 million people. At least 125 different drugs have been reported to cause DIIHA, antibiotics are the most common agents.

**Case report:** A 81-year-old woman was admitted to our hospital after 5 days of persistent fever and middle back pain. She had a history of diabetes mellitus and multiple osteoporosis-related vertebral fractures. On admission laboratory tests revealed elevated inflammatory markers (WBC 19550/ L with neutrophilia, D-dimer 1600ng/mL and CRP 505mg/L) and mild respiratory insufficiency (pO<sub>2</sub> 50, pCO<sub>2</sub> 31 pH 7,48). Hb, bilirubin and LDH were all normal. A chest X-ray was normal. A spine X-ray was unchanged from previous imaging studies. A CTPA excluded pulmonary embolism but a diagnosis of pneumonia was made. Blood cultures showed methicillin-sensitive *Staphylococcus aureus*. TEE was negative. A spine MRI revealed spondylodiscitis involving the T11-T12 intervertebral disc and vertebral bodies. High dose oxacillin therapy was started with gradual clinical improvement and continued for 6 weeks. On the last week of therapy Hb dropped from 10,4 to 7,1 g/dL, with no evidence of bleeding. Further testing showed elevated LDH and bilirubin, undetectable haptoglobin, DAT strongly positive (3+) with anti-IgG and negative with anti-C3. Oxacillin was suspected as a cause of DIIHA and was discontinued leading to clinical improvement.

**Conclusions:** DIIHA is a rare complication of penicillin therapy especially in prolonged and high doses treatment.

### Safety and timing of resuming dabigatran after major gastrointestinal bleeding reversed by idarucizumab

G.G. Riaro Sforza<sup>1</sup>, F. Gentile<sup>2</sup>, F. Stock<sup>3</sup>, F. Caggiano<sup>1</sup>, C. Incorvaia<sup>4</sup>

<sup>1</sup>Subacute Care Unit, ASST Nord Milano, Hospital of Sesto San Giovanni (MI); <sup>2</sup>Division of Cardiology, ASST Nord Milano, Hospital of Sesto San Giovanni (MI); <sup>3</sup>Division of General Surgery, ASST Nord Milano, Hospital of Sesto San Giovanni (MI); <sup>4</sup>Section of Cardiopulmonary Rehabilitation, ASST Gaetano Pini/CTO, Milan, Italy

**Background:** The introduction of direct oral anticoagulants (DOACs), for the acute treatment and secondary prevention of venous thromboembolism and in atrial fibrillation (AF) has been shown to provide greater clinical benefit than older ACs. We describe a case of major GI bleeding during treatment with dabigatran, that was reversed by idarucizumab, after which dabigatran treatment was resumed and no further bleeding was observed.

**Case presentation:** The patient was a 87-year-old female hospitalized on 19<sup>th</sup> of March 2016 for heart failure in chronic AF and recent GI bleeding for hemorrhoids. At the time of hospital admission she had been receiving treatment with dabigatran. After few days major hemorrhoidal bleeding occurred. Upon rectal examination the surgeon found haemorrhoid congestion with two bleed-

ing lesions at 3 o'clock, which were sutured by applying a double Spongostan tampon. Therefore, idarucizumab was administered to reverse the anticoagulant effect of dabigatran. After about 20 days the echocardiography, CHADS-VASC and HAS-BLED suggested it was appropriate to resume dabigatran. No bleeding occurred in the period leading up to when the patient was discharged, nor until January 2017, when the patient was followed-up.

**Conclusions:** The case suggests that dabigatran can be safely restarted after major GI bleeding. The decision to resume treatment was made using the scores of CHADS-VASC and HAS-BLED, that balance the risk of atrial fibrillation/stroke against the risk of major bleeding. Data from studies on large groups of patients are warranted to confirm this outcome.

### National early warning score, application in long-term care setting. Retrospective longitudinal study

M. Riccetti<sup>1</sup>, L. Tesi<sup>2</sup>, A. Toccaceli<sup>3</sup>

<sup>1</sup>Università Politecnica delle Marche, Ancona; <sup>2</sup>Dipartimento Medico, Area Vasta 2 ASUR, Marche; <sup>3</sup>AOU Ospedali Riuniti di Ancona, Italy

**Background and Purpose of the study:** The Long-Term Care facilities treats patients increasingly heterogeneous resulting in a difficult standardization of processes and care pathways, sometimes increasing the risk in terms of safety for the patient. In order to prevent clinical deterioration, the NEWS scale (National Early Warning Score) is an internationally validated instrument and various scientific studies have demonstrated the reliability in the acute setting, but not in other contexts. The aim of this study is to prove whether the use of the NEWS scale is also justified in the post-acute care setting.

**Materials and Methods:** We proceeded through a retrospective study in the collection of the parameters in the first half of 2016 (1876 days of hospitalization). We have calculated on the detected vital signs the score NEWS, associating to adverse events.

**Results:** We reported 2281 surveys of vital signs and 76 adverse events. A value NEWS>4 was calculated on 406 measurements (17.8%) showing a statistically significant relationship between this and the occurrence of an adverse event: OR=1.81 (95% CI 1.08 3.02 p=0.000), resulting in a specificity of 82.54% (95% CI 80.90 84.07 p=0.000).

**Conclusions:** The score NEWS proved a tool also applicable in contexts of Long-Term Care although with some limitations. Its use can be an advantage in adverse event prevention in different contexts from the acute hospitalization.

### Teleconsultation in type 1 diabetes mellitus: results from interim analysis

B. Rivolta<sup>1</sup>, I. Stefani<sup>1</sup>, F. Bertuzzi<sup>2</sup>, I. Dalle Mule<sup>1</sup>, C. Marchesi<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>Diabetology Unit, Medicine Department, Legnano Hospital, Legnano (MI); <sup>2</sup>Diabetology Unit, Niguarda Hospital, Milan, Italy

**Background:** The need to contain health care costs empower the necessity to identify new models to cope with regular periodic follow up of diabetic patients. Telemedicine offers an acknowledged instrument to provide clinical health care at a distance, increasing patient compliance and the achievement of therapeutic goals.

**Objectives:** Evaluate the feasibility and the efficacy, in particular on glycemic control, of teleconsultation in patients with type 1 diabetes mellitus versus standard visits in the outpatient clinic.

**Methods:** This 2-arm randomized controlled study is being conducted in two diabetes centers in Lombardy. 80 patients affected by type 1 diabetes has been randomly assigned to receive 3 month based visits in outpatient clinic according to the standard of care or in web based teleconsultation. Primary Outcome assessment of HbA<sub>1c</sub> at 12th month follow up. Secondary Outcome: HbA<sub>1c</sub> at 3rd to 6th to 9th month follow up; Patient's satisfaction assessed by a questionnaire on the perception of advantages and limits; Cost analysis by patient estimation.

**Results:** After 2 years an interim analysis shows HbA<sub>1c</sub> T0 59±11 mmol/l vs HbA<sub>1c</sub> T12 57±10 mmol/l (p 0.63) in the Telediab group, and HbA<sub>1c</sub> T0 59±10 mmol/l vs HbA<sub>1c</sub> T12 59±12 mmol/l

(p 0.71) in the standard group. Questionnaires demonstrate patient's satisfaction, and also their time and cost saving.

**Conclusions:** Telemedicine for DM1 management is comparable for efficacy with standard visits in the overall glucose control. Patients reported high rate of satisfaction, cost and time saved thanks to the service.

### A rare case of a Whipple's disease "covered" by a rheumatoid arthritis in a 50-year-old woman

A.V. Romano<sup>1</sup>, L. Robbiolo<sup>1</sup>

<sup>1</sup>Ospedale Niguarda, Milano, Italy

**Introduction:** A 53 year-old woman was admitted in Niguarda Hospital on October 2016. She complained of anorexia, weight loss, abdominal pain and diarrhea. The blood tests revealed anemia, thrombocytosis, leukocytosis and increased PCR value.

**Medical history:** In 2004 a diagnosis of rheumatoid arthritis was made. In 2013, she referred weight loss of 13 kilos, fever, night sweats and increased inflammation values. A TC confirmed abdominal lymphadenopathies. The biopsy of lymph nodes found irregular-shape foaming cells with histiocytes and macrophagic cells. In 2016 an EGDS was performed. The biopsy described aggregates of histiocytes with PAS-staining intracytoplasmic grains, lymphatic ectasia and adipose vacuoles. The results evidenced morphologic features consistent with those of Whipple's disease. TC and PET confirmed the persistence of adenomegalies. She started a combined antibiotic therapy, and after 6 months she showed complete regression of gastrointestinal symptoms.

**Diagnosis:** Whipple disease is confirmed by the presence of macrophages in the lamina propria, distortion of villous architecture and dilated lymphatic channels. PAS-positive inclusions are nonspecific. Polymerase Chain Reaction has improved the diagnosis of Whipple's disease for its sensitivity and specificity.

**Conclusions:** Whipple is a rare disease that have to be considered in the differential diagnosis of patients with symptoms of gastrointestinal malabsorption. The disease might be mistaken for other chronic infectious or inflammatory diseases. Early diagnosis of Whipple's disease is problematic because of its nonspecific presentation.

### Medications recognition and reconciliation: learning from experience

E. Romano<sup>1</sup>, M. La Regina<sup>1</sup>, S. Zucconelli<sup>2</sup>, D. Carlucci<sup>3</sup>, F. Orlandini<sup>4</sup>, A.L. Costa<sup>5</sup>, E. Pasero<sup>6</sup>, A. Conti<sup>7</sup>

<sup>1</sup>SS Risk Management, ASL 5 Liguria, La Spezia; <sup>2</sup>Servizio Farmaceutico, ASL 5 Liguria, La Spezia; <sup>3</sup>Direttore Medico PO ASL 5 Liguria, La Spezia; <sup>4</sup>SC Medicina Interna 1, ASL5 Liguria, La Spezia; Direttore Sanitario ASL4 Liguria, Chiavari (GE); <sup>5</sup>Direzione Sanitaria, PO ASL 5 Liguria, La Spezia; <sup>6</sup>SC Governo Clinico, Progr Sanitaria, Rischio Clinico e Controllo di Gestione; <sup>7</sup>Direttore Generale ASL5 Liguria, La Spezia, Italy

**Background and Aims:** Nowadays, medications taken by patients and transitions of care, especially for elderly and/or polypathological patients, are more and more numerous. Medications and care transitions increases the risk of pharmacological errors (unintentional drug discrepancies up to 47% in literature). The present work is aimed to describe the development and implementation of a tool to prevent such errors and ways to improve physician acceptance.

**Methods:** A multidisciplinary working group developed a medications recognition form to be fulfilled any time a patient meets a doctor (admission to hospital, access to outpatient clinics, primary care, nursing home, etc) and a medications reconciliation form to be fulfilled anytime a patients leaves healthcare facilities. A procedure on how to fulfill these forms was also written down. Implementation of procedure and forms was done in the hospital.

**Results:** Medications recognition and reconciliation forms were quite easy to develop, but not easily accepted by physicians, often seen as further "paper work". Surgeons were the least familiar with these processes. Integration of information included in the 2 forms within previous admission and discharge documentation can improve adherence to procedure. The need to personalize forms according to ward (i.e. Pediatrics and Psychiatry) emerged during implementation phase.

**Conclusions:** Safety tools could be seen as unuseful paper work, if they are not adapted to working real world. A survey to detect drug discrepancies before and after implementation is still ongoing.

### Infarto splenico nell'anziano: prevalenza e aspetti clinici

G. Romano<sup>1</sup>, A. Abate<sup>2</sup>, G. Brugaletta<sup>2</sup>, C. Musso<sup>2</sup>, R. Platania<sup>2</sup>, M.G. Ronisvalle<sup>2</sup>, S. Selvaggio<sup>2</sup>, A. Lo Gullo<sup>3</sup>, S. Sciacca<sup>4</sup>, A. Digiacomo<sup>1</sup>, M. Romano<sup>2</sup>

<sup>1</sup>Medicina Interna, Ospedale Guzzardi, Vittoria (RG); <sup>2</sup>Geriatra, Ospedale Garibaldi, Catania; <sup>3</sup>PS, Ospedale Piemonte, Messina; <sup>4</sup>SIMT, Ospedale Garibaldi, Catania, Italy

**Scopo:** Definire prevalenza e sintomi di infarto splenico (IS) nei pazienti (Pz) anziani.

**Materiali e Metodi:** Studio retrospettivo di 2.686 anziani consecutivi (F 1394 - M 1292; età media 80 anni, range 65-103 anni) afferenti a Unità Operativa medica ospedaliera, sottoposti ad ecografia addominale per varie indicazioni. La presenza di IS è stata definita dal rilievo ecografico nella milza di una o più formazioni cuneiformi con base sub-capsulare, ipoecogene (acute), iperecogene (pregresse) o miste (subacute). È stata valutata la possibile correlazione etiologica e la presenza di sintomi attribuibili.

**Risultati:** La prevalenza di IS è stata di 44/2.686 (F 28 - M 16; età media 78,5, range 65-94 anni), pari a 1.6%, singoli (35) o multipli (9): 7 acuti, 4 subacuti, 31 pregressi, 2 combinati (multipli con IS sia acuti che pregressi). 1 paziente con IS acuto ha presentato evoluzione ascessuale. L'etiologia era attribuibile a fibrillazione atriale (FA) in 15 Pz, endocardite in 1, splenomegalia in 8 (5 malattia oncoematologica, 2 cirrosi epatica, 1 amiloidosi), non attendibilmente determinabile nei restanti casi. In 4 Pz era presente dolore al fianco sn; in 12 febbre: imputabile ad ascessualizzazione di IS in un caso, comunque a comorbidità nei restanti.

**Conclusioni:** Lo studio mostra la relativa frequenza di IS tra gli anziani ospedalizzati, con sintomi scarsi o aspecifici. La diagnosi è abitualmente occasionale, nel corso di ecografia addominale; FA risulta la causa più frequente. Sebbene l'evoluzione dell'IS sia abitualmente in esito fibrotico, è possibile l'ascessualizzazione.

### Analisi del carico assistenziale dei caregivers di pazienti affetti da Parkinson ricoverati in ospedale

A. Romeo<sup>1</sup>, S. Bucello<sup>2</sup>, V. Drago<sup>2</sup>, L. Marturano<sup>2</sup>, R. Tarantello<sup>2</sup>, R. Vecchio<sup>2</sup>, R. Riscicato<sup>3</sup>

<sup>1</sup>Psicologa, P.O. Augusta, ASP Siracusa; <sup>2</sup>UOS Neurologia, P.O. Augusta, ASP Siracusa; <sup>3</sup>UOC Medicina Interna, P.O. Augusta ASP Siracusa, Italy

**Premesse e Scopo dello studio:** I disturbi motori del malato di Parkinson alterano la qualità di vita del paziente e del suo caregiver. Gli obiettivi del nostro studio sono: rilevare il grado di limitazioni percepite dal caregiver, individuare il genere di modificazione della qualità di vita di essi circa l'assistenza prestata.

**Materiali e Metodi:** Il campione è costituito da 15 caregivers di pazienti affetti da Parkinson, stadio III - IV della scala Hoehn & Yahr, uomini 70enni che per il 30% vive da solo. Si tratta per lo più di familiari, donne, di età fra i 35-65 anni. Per il 50% dei casi familiari di 1°, per il 35% badanti, 15% parenti 2°. Gli strumenti di cui ci si è avvalsi: colloquio clinico psicologico, somministrazione del test CBI (Caregiver Burden Inventory) per la valutazione del carico assistenziale dei caregivers, in grado di analizzarne l'aspetto multidimensionale.

**Risultati:** Dai risultati del test i caregivers si considerano esclusi dalle opportunità di vita tipiche dei coetanei. Tutti descrivono sensazioni di fatica cronica ed eccessivo carico fisico. Il tempo è percepito come eccessivamente ridotto o sfuggente. Dal colloquio, il 40% ha sviluppato disturbi psicosomatici ed il 35% verbalizza sentimenti oppositivi nei confronti dell'assistito, l'80% ha riferito di aver sperimentato stress, depressione o ansia di intensità mai provata prima. Il 70% non riceve aiuto da terzi.

**Conclusioni:** Sarebbe proficuo erogare una corretta informazione al caregiver, al fine di fargli riconoscere i fattori di rischio, e fornire supporto psicologico, sia nelle strutture ospedaliere che nel territorio.

### La rappresentazione cognitiva del paziente oncologico ricoverato in ospedale

A. Romeo<sup>1</sup>, E. Cristaldi<sup>2</sup>, F. Giacalone<sup>2</sup>, O. Grasso<sup>2</sup>, S. Intravaia<sup>2</sup>, S. Marturana<sup>2</sup>, S. Platania<sup>2</sup>, R. Riscicato<sup>2</sup>

<sup>1</sup>Psicologa, P.O. Augusta, ASP Siracusa; <sup>2</sup>UOC Medicina Interna, P.O. Augusta, ASP Siracusa, Italy

**Premesse e Scopo dello studio:** La cura del malato oncologico è finalizzata alla sua gestione globale, e deve essere affrontata da equipe multiprofessionali e multidisciplinari. Obiettivo dello studio è indagare le rappresentazioni cognitive del malato oncologico al fine di migliorare da parte dell'equipe ospedaliera il prendersi cura.

**Materiali e Metodi:** 25 pz. affetti da carcinoma (10 M e 15 F), di età fra i 43 e i 78 anni, arruolati a seguito di intervento chirurgico, esiti delle terapie specifiche, disturbi da recidive. Strumenti di cui ci si è avvalsi: 1. l'intervista discorsiva, 2. l'IBQ (Illness Behaviour Questionnaire) che misura i sentimenti del paziente circa la malattia, la sua percezione delle reazioni di persone significative, compreso il medico, 3. il CBA 2.0. un test che fornisce un'anamnesi psicosociale, ansia di stato, ansia di tratto, depressione.

**Risultati:** Dal test IBQ si evidenziano livelli significativi di (IG) *Ipocondria Generale*, eccessiva paura circa la malattia, (CM) *Convinzione di Malattia* e riluttanza ad accettare qualsiasi rassicurazione medica, *Irritabilità* nei rapporti interpersonali. Il dato più significativo è quello dell'*Inibizione Affettiva* (49%). I pazienti non riescono ad esprimere i propri sentimenti, preferiscono tenerli per sé per non gravare sui familiari e per non innescare sentimenti compassionevoli.

**Conclusioni:** Il paziente oncologico è caratterizzato da: preoccupazione della malattia, convinzione dell'ineluttabilità di essa, livelli critici di ansia che ricadono sulla gestione della malattia e sull'aderenza ai trattamenti. Ciò richiede interventi mirati a supporto della strategia terapeutica prospettata.

### Il grado di soddisfazione del paziente nella visita medica in un reparto di Medicina Interna

A. Romeo<sup>1</sup>, E. Cristaldi<sup>2</sup>, F. Giacalone<sup>2</sup>, O. Grasso<sup>2</sup>, S. Intravaia<sup>2</sup>, S. Marturana<sup>2</sup>, S. Platania<sup>2</sup>, R. Riscicato<sup>2</sup>

<sup>1</sup>Psicologa, P.O. Augusta, ASP Siracusa; <sup>2</sup>UOC Medicina Interna, P.O. Augusta, ASP Siracusa, Italy

**Premesse e Scopo dello studio:** La comunicazione è strumento essenziale per la cura ed è presupposto fondamentale nella relazione medico-paziente. Obiettivo dello studio è quello di indagare la soddisfazione del paziente ricoverato.

**Materiali e Metodi:** Una prima fase prevede l'osservazione del medico da parte dello psicologo durante la visita con i pazienti ove si attenzionano le modalità con cui si svolge il colloquio. Sono stati reclutati 30 pazienti ricoverati, con diverse diagnosi, di età fra i 32 ed i 65 anni (17 M-13 F). Ai pazienti sono stati somministrati due questionari: STAY-Y: per misurare lo stato d'ansia prima e dopo la visita; HCCQ "Health Care Communication Questionnaire" per valutare la soddisfazione rispetto al colloquio appena effettuato.

**Risultati:** Il livello di ansia nel momento precedente al colloquio medico non si discosta da quella post-colloquio. Vi è una correlazione negativa significativa tra l'ansia di stato post colloquio e la dimensione "Problem Solving" della scala HCCQ riferita alla capacità del medico di trovare soluzioni accettabili nella relazione d'aiuto. Si evince che i medici usano uno stile comunicativo orientato al problema. Una comunicazione strumentale, attraverso cui forniscono informazioni utilizzando un linguaggio chiaro, specialistico, ma accessibile ai pazienti. Il livello di soddisfazione del paziente è molto elevato.

**Conclusioni:** Un modello "centrato sul paziente" ed uno stile comunicativo adeguato contribuiscono fortemente all'ottenimento di una sempre maggiore soddisfazione della visita medica con conseguente aumento della compliance.

### Role of the nurse counseling in management of the respiratory ventilators non invasive home

G. Ronzino<sup>1</sup>, C. Miccoli<sup>2</sup>, L. Galeone<sup>2</sup>, S. Lenti<sup>3</sup>, M. Carlucci<sup>4</sup>

<sup>1</sup>Director District Social Health 6, ASL Taranto; <sup>2</sup>District Nurses Social

Health 6, ASL Taranto; <sup>3</sup>Internal Medicine Grottaglie, ASL Taranto; <sup>4</sup>Health Director, ASL Taranto, Italy

**Introduction:** Patients with high-grade COPD need a high level of integrated care between hospital and territory, especially in the home management of non-invasive ventilators. Therefore plays an important role managerial counseling among health professionals and the caregivers.

**Aim of the study:** To evaluate the role of the nurse, compared to an administrative, regarding the majority taking charge of the management of non-invasive ventilators and their consumables.

**Materials and Methods:** From the social and health district database 6 ASL of Taranto (11 municipalities with a population of 110.000 inhabitants), we analyzed the 2016 data of the non-invasive ventilators management by a dedicated nurse. In all were cared for 650 patients (65% M 35% F) with an average age of 60 years. Through medical history and telephone contact with the caregiver nurse has been able to assess, together with the lung specialist, a prescription targeted consumables and the aggravation of the disease according to the GOLD guidelines. The data were then compared with those of 2015 managed by an administrative.

**Results.** With the nurses we noticed a better management of costs of a more appropriate use of consumables and also a good approval rating by the caregiver through a simple telephone call.

**Conclusions.** Our analysis highlights more as the integration between hospital and territory should be made using the guidelines and making use of health professionals trained: their role can lead to improved cost management and more and more strengthens the counseling in the patient's care.

### An unusual case of severe constipation

A. Rossini<sup>1</sup>, L. Amoresano<sup>1</sup>, V. Polo<sup>1</sup>, G.G. Riario-Sforza<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, ASST Milano Nord, Sesto San Giovanni (MI);

<sup>2</sup>U.O. Subacuti, ASST Milano Nord, Sesto San Giovanni (MI), Italy

A 66-year-old female presented with fatigue, constipation, nausea, headache, and fever. She was previously evaluated at another medical center, where she underwent X-ray and ultrasound of the abdomen, with no pathological findings; blood test showed iponatremia and mild CPK elevation. At our institution, a CT scan of the brain, performed to rule out intracranial hypertension, showed an enlarged and partially eroded sella turcica and a large, hyperdense pituitary. Based on CT results, secondary hypoadrenalism was hypothesized; the diagnosis was confirmed by the finding of undetectable blood cortisol levels. Additional biochemical tests showed panhypopituitarism and mild hyperprolactinemia. MRI confirmed the presence of a pituitary macroadenoma with suprasellar extension, displacing the pituitary stalk without compressing the optic chiasm. Replacement therapy with cortisone acetate and levothyroxine was started; once achieved stable hormonal levels, the adenoma was surgically removed with a transphenoidal approach. Chronic hypoadrenalism may present with aspecific symptoms, often resembling a gastrointestinal illness; concomitant hypothyroidism may worsen the clinical presentation, slowing intestinal transit. Although infrequent, hypoadrenalism should therefore be taken into account in the diagnostic flow-chart of gastrointestinal disorders, especially when first-line tests are not conclusive.

### Diagnostic pitfalls in hyperprolactinemia: role of interfering medications

A. Rossini<sup>1</sup>, V. Polo<sup>1</sup>, L. Amoresano<sup>1</sup>, G.G. Riario-Sforza<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, ASST Milano Nord, Sesto San Giovanni (MI);

<sup>2</sup>U.O. Subacuti, ASST Milano Nord, Sesto San Giovanni (MI), Italy

An 85-year-old man came to our attention after the discovery of a pituitary macroadenoma with para- and suprasellar extension, compressing the optic chiasm. Blood tests showed hyperprolactinemia (111 ng/dl) and hypogonadotropic hypogonadism with normal remaining pituitary function. The ophthalmologic evaluation did not show defects in optic field or visual acuity. Differential diagnosis between macroprolactinoma and hyperprolactinemia secondary to pituitary stalk compression was not straightforward due to prolactin levels slightly above 100 ng/dl

in the presence of a very large adenoma; moreover, prolactin levels could have been falsely reduced by chronic treatment with levodopa for Parkinson's disease. To rule out the "hook effect", serial dilution of serum samples was performed, confirming prolactin values. After a neurological evaluation, cabergoline (0.5 mg twice weekly) was added. Two months later, blood tests showed very low prolactin levels, suggesting the diagnosis of non-functioning pituitary adenoma with secondary hyperprolactinemia. Cabergoline was reduced to 0.5 mg weekly. After three months, MRI showed a marked decrease of the adenoma, eventually leading to the diagnosis of macroprolactinoma. Discriminating between different causes of hyperprolactinemia may be challenging, especially in the presence of large pituitary lesions without marked prolactin elevation. Diagnosis may be even more difficult if pharmacological interference occurs, as many drugs may increase (anti-psychotics, anticonvulsant) or reduce (antiparkinsonian drugs) prolactin secretion.

### A challenging case of polyglandular autoimmune syndrome

A. Rossini<sup>1</sup>, L. Amoresano<sup>1</sup>, V. Polo<sup>1</sup>, G.G. Riario-Sforza<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, ASST Milano Nord, Sesto San Giovanni (MI);

<sup>2</sup>U.O. Subacuti, ASST Milano Nord, Sesto San Giovanni (MI), Italy

A 51-year-old woman was admitted to our center for the evaluation of high glycemic levels. She reported a history of breast cancer surgically treated and a recent diagnosis of autoimmune cholangitis. Physical examination showed class 1 obesity and the patient was therefore diagnosed with type 2 diabetes mellitus (T2DM). Metformin was started, and after few weeks slow release glicazide was added due to failure to achieve glycemic target. Assessment of thyroid function (performed routinely at our institution in every diabetic patient) showed mild hyperthyroidism with positivity for TRAb and TPO antibodies; a full autoimmune screening was then performed, revealing ICA and GAD antibodies positivity. The diagnosis of late-onset autoimmune diabetes (LADA) in the setting of a polyglandular autoimmune syndrome was made. Oral antidiabetic drugs were stopped, and basal-bolus insulin treatment started. According to patient's preference, hyperthyroidism was treated with RAI. Patient is now on stable insulin and levothyroxine therapy; she's also treated with ursodeoxycholic acid for liver disease. The present case underlines the need for accurate evaluation of diabetic patients. As a consequence of the dramatic increase in obesity, the unusual presentation (i.e. obese or overweight patients) of autoimmune forms is becoming more common. Moreover, it is important to bear in mind that LADA is often associated with other autoimmune conditions that need to be recognized and properly treated.

### A case report: acute interstitial pneumonia with diffuse alveolar damage (Hamman-Rich syndrome) in Internal Medicine Unit care

S. Rotunno<sup>1</sup>, A. Armiento<sup>1</sup>, A. Bianchi<sup>1</sup>, E. Bizzi<sup>1</sup>, R. De Angelis<sup>1</sup>, V. Della Chiara<sup>1</sup>, L. Giubilei<sup>1</sup>, O. Guarino<sup>1</sup>, F. Lasaracina<sup>1</sup>, D. La Russa<sup>1</sup>, M. Martinelli<sup>1</sup>, L. Xiao<sup>1</sup>, M. Cassol<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Geriatria, Ospedale San Pietro Fatebenefratelli, Roma, Italy

Acute interstitial pneumonia (AIP) or Hamman Rich syndrome is a rare and fulminant form of lung injury. It is an interstitial lung disease characterized by rapid onset of respiratory failure, similar to acute respiratory distress syndrome (ARDS) with diffuse alveolar damage (DAD) on lung biopsy specimens. The main radiological finding in DAD is the presence of bilateral lung infiltrates, which vary from patchy to diffuse and are often described as alveolar. The high-resolution computed tomographic (CT) include bilateral ground-glass opacities and/or bilateral airspace consolidation (opacification). Confirmatory diagnosis requires demonstration of diffuse alveolar damage on lung histopathology. The main treatment is supportive care. It is not clear if glucocorticoid therapy is effective in acute interstitial pneumonia. We report the case of a 80-year-old man without pre-existing lung disease who initially presented with mild upper respiratory tract infection and then progressed to rapid onset of

hypoxic respiratory failure similar to acute respiratory distress syndrome with unknown etiology. Despite glucocorticoid intravenous, non-invasive ventilator therapy and high concentration oxygen therapy, he did not achieve remission and expired after 15 days of hospitalization.

### A very strange maculopapular rash

C. Rus<sup>1</sup>, F. De Marco<sup>1</sup>, G. Guida<sup>1</sup>, S. Del Colle<sup>1</sup>, C. Negro<sup>1</sup>, M. Trapani<sup>1</sup>, F. Borin<sup>1</sup>, A. De Marchi<sup>2</sup>, P. Bigo<sup>1</sup>

<sup>1</sup>Medicina ad Intensità di Cura 1, Ospedale M. Vittoria, Torino; <sup>2</sup>Anatomia Patologica, Ospedale G. Bosco, Torino, Italy

An 83 years old man presented with fever, severe anaemia mild thrombocytopenia and generalized maculopapular rash occurring since 3 months. This periodic generalized asymptomatic maculopapular rash involved whole body sparing his palms, sole and scalp vanished after few hours without any medications. Screening for autoimmune diseases and for common infections associated with fever were unremarkable. Also we performed a bacterial culture and Leishmania DNA on bone marrow aspirate which were negative. Hole body CT scan showed little chest adenopathy and splenomegaly. Bone marrow aspirate showed an increased myeloid population (25%) who expressed low SCC, CD45 dim CD 34-, HLADR-C D117+ CD33+, CD13+, CD19- CD11b- CD 66b- CD15- CD 22-. This immunophenotype induced the suspect of acute promyelocytic leukaemia; more over the morphology of these cells was very similar to promyelocytic cells and all-trans-retinoic acid therapy was begun. Whereas finally the complete pathology reports was an aggressive systemic mastocytosis as cells immunocytochemistry based on the expression of CD117 and triptase, while CD34 and myeloperoxidase were both negative. Despite the most current treatment for younger people as Interferon-alfa, 2-Chlorodeoxyadenosine, Thalidomide or Imatinib mesylate, our patient was treated with corticosteroid, first-generation histamine H1 antagonists and idroxicarbamide in consideration of age and important co-morbidity. Treatment was well tolerated, the rash vanished, the serum triptase value was stable for 3 months.

### Time is brain: l'analisi di un caso paradigmatico mostra le criticità di sistemi ancora privi di rete stroke

M. Sacco<sup>1</sup>, V. Andreone<sup>2</sup>, D. D'auria<sup>1</sup>, M. Di Palo<sup>1</sup>, M. Giordano<sup>1</sup>, E.M.R. Itto<sup>1</sup>, O. Nannola<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli; <sup>2</sup>U.O. Neurologia, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** La terapia trombolitica nello stroke produce i migliori risultati entro le prime tre ore dall'insorgenza dei sintomi. La realtà italiana è ancora disomogenea nell'implementazione della rete stroke.

**Caso clinico:** Ore 20.40: C.M. medico napoletano di 61 anni accusa deficit motorio emilato dx. e afasia; ore 21.15: trasportato da parenti medici, arriva al Pronto Soccorso dell'ospedale Cardarelli; ore 22.15: sottoposto a visita, ecg, prelievo per esami ematochimici e Tc cerebrale, giunge nel reparto di Medicina d'Urgenza; ore 22.50: valutata con il responsabile delle emergenze vascolari neurologiche la possibilità di trombolisi, esegue angio-Tc cerebrale, che mostra occlusione completa dell'arteria cerebrale media di sinistra; ore 23.30: inizia il trattamento con Alteplase, tagliando, per così dire, il traguardo della trombolisi a 2 ore e 50 minuti dall'inizio dei sintomi.

**Discussione:** Vari elementi favorevoli (evento occorso per strada, in medico parente di medici, in orario con scarso traffico veicolare) hanno permesso l'arrivo in ospedale con DEA di 2° livello ad appena trenta minuti dall'esordio dei sintomi. La somministrazione della trombolisi è però avvenuta dopo oltre due ore dall'arrivo in ospedale.

**Conclusioni:** La Campania ha il più basso numero di stroke unit in rapporto al numero di abitanti. Solo l'attivazione di un "percorso stroke" dedicato (peraltro in via avanzata di organizzazione nel nostro ospedale) può permettere un abbattimento dei tempi della trombolisi, nei casi eligibili, in modo da migliorare l'outcome soprattutto riguardo alla disabilità.

### Dall'ipo- all'ipertermia passando per l'onda J: un caso atipico di sindrome maligna da neurolettici ad andamento bifasico

M. Sacco<sup>1</sup>, F. Cataldi<sup>1</sup>, D. D'auria<sup>1</sup>, M. Di Palo<sup>1</sup>, I.M. Gelsomino<sup>1</sup>, O. Nannola<sup>1</sup>, D. Petito<sup>1</sup>, D. Verrillo<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** La sindrome maligna da neurolettici (SMN) ha, sia nelle modalità di esordio che nel decorso, grande variabilità, con un "continuum" di casi dalla quasi asintomaticità all'evoluzione fatale.

**Caso clinico:** Si ricovera con diagnosi di "ipotermia" uomo di 53 anni, in anamnesi fumatore, diabetico, pregresso ictus, psicosi schizofrenica (in terapia con quetiapina-promazina-clonazepam), proveniente dall'Osservazione Breve Intensiva dove erano stati rilevati valori di temperatura corporea di circa 32°, onda J di Osborn e allungamento del QT all'Ecg, focolaio broncopneumonico all'Rx torace. In reparto l'uomo presenta normotermia con t 36.0° (aveva ricevuto in OBI terapia per l'ipotermia), alterato stato di coscienza (soporoso), atteggiamento epilettiforme per diffuso miocloni. Approfondendo l'anamnesi con i familiari, emerge una recente sospensione (5 gg. prima) dei farmaci psicotropi a causa della comparsa di disfagia e rigidità muscolare. Nel successivo decorso si verifica un brusco viraggio verso ipertermia con ipertono muscolare e marcato aumento del Cpk, così da porre diagnosi di sindrome maligna da neurolettici e da richiedere terapia con bromocriptina e dantrolene, fino all'exitus avvenuto in 5° giornata dal ricovero.

**Discussione:** Le recenti variazioni nella terapia neurolettica sono un elemento ricorrente nella SMN, ma a volte possono rappresentare un epifenomeno legato all'esordio della sindrome o a concomitante patologia organica. Interessanti sono in questo caso clinico l'iniziale presenza all'ecg di onda J e il brusco viraggio dall'ipo- all'ipertermia.

### Un caso di microangiopatia trombotica iatrogena

M. Sacco<sup>1</sup>, C. De Martino<sup>1</sup>, M. Di Palo<sup>1</sup>, L. Guadagno<sup>2</sup>, A. Magliocca<sup>2</sup>, O. Nannola<sup>1</sup>, A. Schiazzano<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>AORN Antonio Cardarelli, Medicina d'Urgenza, Napoli; <sup>2</sup>AOU Federico II, Napoli, Italy

Donna di anni 42 (affetta da sclerosi multipla in terapia con beta interferone,  $\beta$ IFN) giunge in PS per astenia, dispnea da sforzo, edemi declivi, calo del visus OS, esantema petecchiale. All'ingresso, GCS 15; ECG: RS 100bpm; EGA: ipopotassiemia (2.5mEq/L). L'ecografia addome documenta iperecogenicità della corticale renale con perdita della differenziazione cortico-midollare bilateralmente. Gli esami di laboratorio evidenziano creatinina 1.8mg/dl, piastrinopenia ( $86 \times 10^3$ /mmc), anemia emolitica (ridotta aptoglobina, aumentata LDH, numerosi schistociti allo striscio periferico), proteinuria (3gr/24h), Shiga-tox negativa. Viene posta diagnosi di malattia microangiopatica (TMA) verosimilmente secondaria a tossicità da  $\beta$ IFN. Si avvia terapia con Plasma Exchange (PEX) cui si associa successivamente Rituximab (375mg/m<sup>2</sup>/settimana per 4 settimane), a potenziamento della stessa con progressiva normalizzazione del quadro emocromocitometrico, a fronte di ulteriore decadimento della funzione renale, che richiederà emodialisi.

**Conclusioni:** Le TMA rappresentano un gruppo di patologie sistemiche ad eziologia multifattoriale, la cui sola tempestiva diagnosi può consentire una precoce ed appropriata scelta terapeutica in grado di ridurre l'elevato tasso di mortalità e morbilità. Esistono in letteratura case-reports di associazione causale tra TMA e  $\beta$ -IFN, anche a distanza di mesi o anni dall'inizio dell'assunzione del farmaco.

### Una semplice cistite emorragica? Un raro caso di overlap tra porpora trombotica trombocitopenica associata a ticlopidina e sindrome da anticorpi antifosfolipidi

E. Sagrini<sup>1</sup>, M.G. Sama<sup>1</sup>, M. Vastola<sup>1</sup>, M. Salvucci<sup>2</sup>, S. Bonoli<sup>1</sup>, M. Montepaone<sup>1</sup>, F. Lanza<sup>2</sup>, L. Rasciti<sup>1</sup>

<sup>1</sup>Unità Operativa di Medicina Interna, Ospedale Santa Maria delle Croci,

Ravenna; <sup>2</sup>Unità Operativa di Ematologia, Ospedale Santa Maria delle Croci, Ravenna, Italy

La piastrinopenia associata ad anemia emolitica può essere caratteristica della porpora trombotica trombocitopenica (PTT) e della sindrome da anticorpi antifosfolipidi (APS). Queste due malattie possono raramente manifestarsi associate. I derivati tienopiridinici sono farmaci comunemente associati a PTT iatrogena. Presentiamo il caso di una paziente di 78 anni con anamnesi positiva per anticoagulante lupico (LAC) e precedente episodio di piastrinopenia risoltosi spontaneamente (non segnalate trombosi), tiroidite di Hashimoto e sindrome fibromialgica. La paziente si presenta per cistite emorragica e severa astenia. Quattro settimane prima era stata iniziata ticlopidina per LAC+ (intolleranza ad aspirina). Le indagini di laboratorio mostrano anemia emolitica, trombocitopenia severa e schistociti allo striscio periferico. La ricerca dell'attività di ADAMTS 13 ne mostra severa riduzione (5%; v.n. >50%), con presenza di titolo anticorpale anti ADAMTS13 confermando una PTT. Durante la degenza mostra sintomi neurologici transitori (vertigine ricorrente, parestesie monolaterali) e la RM cerebrale rivela focali infarti trombotici bilaterali. Viene sottoposta a 5 sedute di plasmaferesi e terapia steroidea, con normalizzazione di conta piastrinica, regressione di emolisi e del quadro neurologico. Si conferma LAC positivo e si riscontra trombosi bilaterale delle vene soleali, per cui a normalizzazione della conta piastrinica viene iniziata una terapia con fondaparinux, e la paziente viene candidata a una terapia anticoagulante long-term.

**Conclusioni:** Si descrive un raro caso di "overlap" tra PTT e APS, con PTT verosimilmente indotta da ticlopidina.

### La chiusura dell'auricola sinistra: "terapia di salvataggio" per il paziente con fibrillazione atriale e ripetuti eventi emorragici in corso di terapia anticoagulante orale?

E. Sagrini<sup>1</sup>, M.G. Sama<sup>1</sup>, M.T. Milite<sup>1</sup>, A. Fundaliotis<sup>2</sup>, C. Gatti<sup>2</sup>, L. Rasciti<sup>1</sup>

<sup>1</sup>Unità Operativa di Medicina Interna, Ospedale Santa Maria delle Croci, Ravenna; <sup>2</sup>Unità Operativa di Cardiologia, Ospedale Santa Maria delle Croci, Ravenna, Italy

Si descrive il caso di un paziente di 74 anni, fumatore, iperteso, in fibrillazione atriale (FA) permanente già trattata con approccio ablate and pace (PM VVI). In anamnesi episodio di severa anemia da enterorragia in corso di terapia anticoagulante orale (TAO), con accertamenti endoscopici gastroenterici negativi così come lo studio con videocapsula; proseguito warfarin a risoluzione del quadro emorragico. Pochi mesi dopo recidiva di anemia con macroematuria, in assenza di lesioni vescicali a cistoscopia. In tale occasione segnalata frequente labilità di INR, viene quindi avviato a terapia con NAO (apixaban). Sette mesi dopo giunge alla nostra attenzione per recidiva di anemia siderocarenziale severa, che richiede emotrasfusione. Sospende NAO e ripete colonscopia con riscontro di angiodisplasie del cieco, trattate con argon plasma. Alla luce della diatesi emorragica intestinale, relativa controindicazione al NAO, della labilità di INR con warfarin, si opta per valutazione di chiusura dell'auricola sinistra previo studio ecocardiografico trans esofageo. Prosegue terapia ipocoagulante con eparina a basso peso molecolare (CHA2DS2VASc 3, Hasbled 3) fino ad intervento cardiocirurgico, senza occorrenza di eventi cardioembolici. In accordo con le ultime linee guida europee, in pazienti con FA e ripetuti eventi emorragici è raccomandata la sospensione di TAO/NAO fino a risoluzione della causa scatenante (classe I, livello C). La chiusura dell'auricola sinistra è da considerare nella prevenzione cardioembolica in pazienti con controindicazione a TAO/NAO (classe IIb, livello B).

### A strange case of pleuro-pericarditis in a patient with chronic plaque psoriasis and recent interruption of adalimumab

G. Sala<sup>1</sup>, E. Nicolini<sup>1</sup>, E. Romualdi<sup>1</sup>, F. Ambrosini<sup>1</sup>, S. Pegoraro<sup>1</sup>, M.V. Cairati<sup>1</sup>, F. Zuretti<sup>1</sup>, A.M. Grandi

<sup>1</sup>Università degli Studi dell'Insubria, Varese, Italy

**Background:** Adalimumab is a tumor necrosis factor-alpha (TNF $\alpha$ ) blocking drug used for psoriasis. Rare side effects include lupus-like syndrome.

**Discussion:** A 53 years-old woman was admitted for sudden onset of chest pain radiating to left shoulder and palpitations. She had history of cutaneous psoriasis treated with adalimumab obtaining disease quiescence. She referred interruption of the drug for unavailability for about 30 days. Physical examination revealed pericardial friction rubs and widespread psoriasis plaques. Echocardiography showed pericardial effusion without cardiac tamponade, while chest X-ray left pleural effusion without flogistic foci. Laboratory analysis revealed elevated C-reactive protein and negative serology for viruses and bacteria. Autoimmunity panel was negative, except for positive ANA (titer 1:640). The patient was empirically treated with aspirin 1500 mg and levofloxacin and discharged after 5 days. She returned 4 days later because of chest pain recrudescence. A second echocardiography confirmed pericardial effusion. Therefore we introduced a therapy with colchicine 2 mg and ibuprofen 1200 mg obtaining clinical improvement and resolution of pericardial effusion.

**Conclusions:** TNF $\alpha$  blocking drugs can be associated with manifestations ranging from asymptomatic immunological alterations to autoimmune pathology with systemic involvement. When symptoms and signs of sierositis occur in patients treated with adalimumab, clinicians should be aware of these rare but potential important side effects that could be expression of lupus-like syndrome.

### Un paziente "fragile": dal sospetto oncologico alla diagnosi di osteoporomalacia

S. Salvatore<sup>1</sup>, M. Benedetti<sup>1</sup>, V. Sancassani<sup>1</sup>, P. Parravicini<sup>1</sup>

<sup>1</sup>ASST Valtellina e Alto Lario, Sondrio, Italy

**Caso clinico:** Uomo di 69 anni proveniente dall'Ortopedia, ricoverato per intervento di protesi anca dx. Diabetico, epatopatico (emocromatosi), riferiva progresse fratture costali, da mesi difficoltà alla deambulazione, coxartrosi bilaterale radiografica, dieta per sovrappeso. La Scintigrafia Ossea T-B evidenziava accumuli di significato ripetitivo del rachide dorso-lombare, coste, omero dx-femore sn, rotule, tibia sn, femore dx, non confermate alle radiografie e biopsia ossea mirate. Markers neoplastici, TAC T-B e visita urologica negativi. In ingresso sarcopenico, allettato, riferiva dolore non controllato. Agli esami lieve ipocalcemia-ipofofosforemia-deficit di Vitamina D, telopeptidi N-terminali e fosfatasi alcalina aumentati, Paratormone-calcemia e fosfatemia normali. Nel sospetto di grave osteoporomalacia veniva sottoposto a terapia con Calcio-Vitamina D (50000 UI di colecalciferolo/settimana, Calcio gluconato-carbonato 1 gr/die, esafosfina 5 gr/die). Escluso Mieloma Multiplo, esami endoscopici negativi, i culturali delle feci risultavano positivi per teniasi intestinale. Il paziente iniziava fisioterapia e dopo un mese era sottoposto ad intervento chirurgico di artroprotesi, con successiva dimissione. Conclusioni: il paziente presentava un quadro di grave osteoporomalacia su base multifattoriale (dieta, epatopatia cronica, diabete mellito, teniasi), erroneo sospetto di neoplasia. L'anamnesi clinica e la valutazione clinica-strumentale di tutte le sue comorbidità sono state utili per il corretto inquadramento clinico del paziente.

### Un caso di linfadenopatia: dalla diagnosi di linfoma a quella di malattia infettiva

S. Salvatore<sup>1</sup>, M. Benedetti<sup>1</sup>, V. Sancassani<sup>1</sup>, P. Parravicini<sup>1</sup>

<sup>1</sup>ASST Valtellina e Alto Lario, Sondrio, Italy

**Caso clinico:** Donna di 48 anni ricoverata per iperipressia persistente, nessuna sintomo orientativo per richiamo d'organo, calo ponderale di circa 10 kg in 6 mesi, nessuna terapia al domicilio. Riferiva recente decesso del gatto domestico. Ecografia dell'addome riscontrava lesioni epatiche-spleniche, tumefazioni linfonodali diffuse. Gli esami culturali, le sierologie per virus epatotropi, Bartonella, Borrelia, Widal-Wright, autoimmunità, test HIV, QuantiferonTB erano tutti negativi. All'emocromo leucocitosi neutrofila, rialzo degli indici di flogosi. La TAC T-B confermava le lesioni epatiche-spleniche di 2 cm e numerosi linfonodi, concludeva sia per ascesso splenico con reazione linfonodale che per linfoma. Avviata terapia antibiotica con piperacillina-tazobactam e ciprofloxacina. Effettuato ecocardiogramma (negativo), visita ginecologica (ne-

gativa), PET-TAC T-B con diagnosi di malattia linfoproliferativa, per cui veniva programmata laparoscopia con asportazione di linfonodo addominale. Escluso Mieloma Multiplo, Biopsia Osteomidollare negativa. L'esame istologico del linfonodo presentava microascessi con aspetti compatibili con malattia da graffio di gatto. Dopo secondo consulto (forma da inoculazione), la paziente eseguiva nuovo prelievo per Bartonella (negativo) e controllo ecografico con regressione delle linfadenopatie addominali.

**Conclusioni:** La diagnosi definitiva è stata di "adenopatia generalizzata a genesi infettiva (sospetta malattia di graffio di gatto)". Attualmente la paziente ha ripreso la sua attività lavorativa con completa remissione clinica.

### Disfagia nell'anziano: non solo questione di esofago!

A. Salvemini<sup>1</sup>, F. Addante<sup>1</sup>, M. Dagostino<sup>1</sup>, C. Garcia Fernandez<sup>1</sup>, M.G. Longo<sup>1</sup>, V.F. Niro<sup>1</sup>, G. Serviddio<sup>2</sup>, G. Vendemiale<sup>3</sup>, A. Greco<sup>1</sup>

<sup>1</sup>Geriatric Unit and Laboratory of Gerontology and Geriatrics, Department of Medical Sciences, IRCCS "Casa Sollievo della Sofferenza", University of Foggia, San Giovanni Rotondo (FG); <sup>2</sup>University of Foggia (C.U.R.E. University Centre for Liver Diseases Research and Treatment), Department of Medical and Surgical Sciences, Foggia, Italy

Paziente di 91 anni affetta da ipertensione, diabete mellito, pregresso ictus e sindrome ansioso-depressiva. Si ricovera in geriatria per recente insorgenza di disfagia ai solidi e liquidi, xerostomia, rigurgito di materiale alimentare, senso di costrizione toracica. In terapia con ASA, metformina, repaglinide, valsartan, nebulololo, escitalopram. All'ingresso si presentava vigile, orientata, mucose secche; cavo orale iperemico, urente e dolente. Obiettività cardiaca e toracica negativa, dolorabilità alla palpazione profonda in epigastrio. Gli esami di laboratorio mostravano: HbA1c= 9.4%, indici nutrizionali nella norma. Rx torace ed RX diretta addome negativi. Al test della deglutizione la paziente presentò tosse e senso di soffocamento per cui eseguiva EGDS che evidenziava grossolano bolo impattato nell'esofago medio. Dopo frammentazione e rimozione dello stesso l'esofago appariva dilatato, privo di attività peristaltica e substenotico a livello cardiaca come per sospetta acalasia. Sospesa terapia con escitalopram, si disponeva digiuno, associata a terapia reidratante e insulinica. Nei giorni successivi riferiva attenuazione della xerostomia e ha ripreso ad alimentarsi prima con i liquidi, senza più presentare disfagia, e successivamente anche con i solidi. Una EGDS di controllo eseguita a distanza di 8 giorni concludeva per quadro endoscopico nei limiti della norma.

**Conclusioni:** La disfagia in questo caso non è espressione di una patologia esofagea ma del consolidamento del bolo alimentare in esofago dovuto alle diverse condizioni patologiche di cui la paziente era portatrice: xerostomia, disidratazione, diabete mellito scompensato, allettamento.

### Smoking habit is associated with an increase of nocturnal blood pressure fall in patients with white-coat effect. Is it really true?

F. Salvo<sup>1</sup>, M. Berardi<sup>1</sup>, C. Vallo<sup>1</sup>, P. Fogliacco<sup>1</sup>, M. Albano<sup>1</sup>, A.R. Errani<sup>1</sup>, V. Meineri<sup>1</sup>, C.L. Muzzulini<sup>1</sup>, A. Morganti<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale Poveri Infermi, Ceva (CN); <sup>2</sup>Centro di Fisiologia Clinica e Ipertensione, Ospedale Policlinico, Università degli Studi di Milano, Italy

**Objectives:** White-coat effect (WCE) is a common phenomenon usually assessed by ambulatory blood pressure monitoring (ABPM) that could significantly increase mean blood pressure (BP) values and nocturnal BP fall. Since WCE is determined by an hyper-activation of the sympathetic nervous system that is affected also by smoking habit (SH), the aim of this study is to investigate the relationship between those two phenomena.

**Design and Methods:** We retrospectively examined 314 ABPM (M/F 112/202) in which the first recorded BP value was at least 10 mmHg higher than mean diurnal systolic BP (mDSBP); from these, we identified a subgroup of 24 ABPM (M/F 16/8) of patients with SH. Dipping value (DPPv) was calculated as mDSBP - mean nocturnal systolic BP (mNSBP); according to our method, WCE magnitude (WCEm) was identified as mean value of the first two hours of recording.



**Results:** Patients with SH were younger ( $57\pm 3$  vs.  $65\pm 1$  years,  $p<0.05$ ) and showed an higher mDSBP ( $142\pm 3$  vs.  $137\pm 1$  mmHg,  $p<0.05$ ) but similar mNSBP than controls; thus DPPv was  $19\pm 2$  mmHg in SH patients and  $14\pm 1$  mmHg among non smokers ( $p<0.01$ ). WCEm was slightly higher in the first group ( $155\pm 3$  vs.  $150\pm 1$  mmHg,  $p=0.1$ ), although difference of mDSBP among smokers and non-smokers after the exclusion of the first two hours of recording remain similar (respectively  $140\pm 3$  vs.  $135\pm 1$  mmHg,  $p<0.05$ ).

**Conclusions:** In patients with WCE on ABPM, the increase of nocturnal BP fall in SH patients is determined by an higher mDSBP. Although WCEm is increased by smoking, this phenomenon has little influence on nocturnal BP dip.

### Ruolo e indicazione dell'ecografia toracica nella broncopneumopatia cronica. Nostra esperienza

A. Salzano<sup>1</sup>, G. Balsamo<sup>2</sup>, G. Oliva<sup>2</sup>

<sup>1</sup>UOC Radiologia, Ospedale San Giovanni di Dio, Frattammaggiore (NA);

<sup>2</sup>UOC Medicina, Ospedale San Giovanni di Dio, Frattammaggiore (NA), Italy

**Premesse e Scopo dello studio:** Gli autori riportano uno studio su 35 pazienti (19 M e 16 F) con broncopneumopatia cronica (BPCO) esaminati con Eco Toracica (ET) e Rx Torace (Rx), al fine di stabilire il ruolo e le indicazioni della ET in tale patologia; in 12 casi veniva eseguita TC torace.

**Materiali e Metodi:** I pazienti venivano ricoverati nel reparto di Medicina per sintomi respiratori quali dispnea, tosse, febbre, emottisi, etc, e indagati con Ecocardio, EGA, ECG, esami ematochimici e radiologici. L'ET veniva eseguita per ricerca di versamento pleurico, aree di addensamento, zone di disventilazione, e linee B (artefatti longitudinali dalla linea pleurica).

**Risultati:** L'ET evidenziava linee B in tutti i casi, strie di disventilazione in 12, zone di consolidazione in 7, ispessimento pleurico in 6, e versamento in 5. L'Rx Torace oltre questi segni, mostrava accentuazione della trama, enfisema, strie di fibrosi, diradamento dell'interstizio. La TC inoltre consentiva di documentare in modo accurato il bilancio spaziale di enfisema, bolle aeree, disventilazione, bronchiectasie, ispessimento delle pareti bronchiali e noduli polmonari.

**Conclusioni:** Gli autori sottolineano il ruolo gold standard TC nella BPCO rispetto all'Rx, e soprattutto nei confronti della ET, che non consente il riconoscimento di enfisema e bronchiectasie. Al contempo, le linee B possono rappresentare un criterio di selezione nei casi di BPCO con congestione polmonare in cui risultano numerose e a fascio conico, fornendo al clinico una valutazione dei quadri di polmone umido direttamente a letto del paziente.

### Eosinophilic granulomatosis with polyangiitis. Case report

L. Sanesi<sup>1</sup>, S. Alessio<sup>1</sup>, R. Sgariglia<sup>1</sup>, M. Giuliani<sup>1</sup>, M. Fioretti<sup>1</sup>

<sup>1</sup>Department of Medicine, University of Perugia, Unit of Internal Medicine, S. Maria Hospital, Terni, Italy

**Introduction:** Eosinophilic granulomatosis with polyangiitis is a rare systemic vasculitis affecting small and medium sized vessels in person with a history of airway allergic hypersensitivity.

**Case report:** A 70-year-old man with a diagnosis of bronchial asthma (spirometry normal, negative reversibility test) and nasal polyposis presented right arm paresthesias, dyspnea, fever ( $<38^{\circ}\text{C}$ ), and lower-limb petechiae. Laboratory assessment showed eosinophilia ( $E=55\%$ ); normocytic anemia (Hb  $10.2$  g/dl); CRP  $8.2$  mg/dl; a chest-abdomen CT was performed to evaluate pulmonary involvement that showed pleural, pericardial and peritoneal effusion suggestive for polyserositis. Four-limb EMG showed right ulnar and median axonal polyneuropathy. In suspect of Churg-Strauss syndrome, autoimmune panel was withdrawn and turned positive for p-ANCA (MPO  $100$  U/ml). EGPA was finally diagnosed according to ACR criteria (co-presence of eosinophilia, ANCA positivity, nasal polyposis, history of wheezing, multiple mononeuritis). MTX  $15$  mg/weekly, Ig e.v. ( $400$  mg/kg/die for 5 days) and prednisone  $80$  mg/day were introduced, with rapid improvement of clinical conditions.

**Discussion:** In this patient, the diagnosis of EGPA syndrome was

suspected only after the development of a more complex set of signs and symptoms including paresthesia, skin lesions, polyserositis, elevated p-ANCA.

**Conclusions:** The recognition of EGPA represents a real challenge for the clinician because of its wide variety of clinical forms.

### Acute renal failure due to left renal artery cardioembolism in unknown contralateral kidney atrophy

T. Sansone<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, M. Gatti<sup>2</sup>, G. Bandini<sup>1</sup>, P. Bernardi<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, M. Gagliano<sup>1</sup>, S. Lunardi<sup>1</sup>, C. Marchiani<sup>1</sup>, A. Mele<sup>1</sup>, C. Piazzai<sup>1</sup>, N. Palagano<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 4, AOU Careggi, Firenze; <sup>2</sup>DAI Cardio Toraco Vascolare, Diagnostica Cardio Vascolare, AOU Careggi, Firenze, Italy

A 86 years old man was admitted to our ward being diagnosed for lacunar ischemic stroke of right corona radiata. He developed slight left hemiparesis and confusion. He was affected by permanent atrial fibrillation that was diagnosed less than a year earlier during transient ischemic attack (TIA). After TIA he started apixaban but the compliance was insufficient. He also suffered of hypertension. Blood tests at the admission showed an increase of serum creatinine ( $1.76$  mg/dl vs usual values of  $1.10$  mg/dl). The renal function worsened fast (serum creatinine was  $9.32$  mg/dl during at 6th day) and the patient required an urgent dialytic treatment. Abdominal ultrasound with renal arteries echo color doppler showed a bilateral critical obstructive lesion of both renal arteries and a reduction of the dimension of the right kidney. AngioCT proved left renal artery thrombosis with a moving thrombus in the aorta, the rehabilitation of the same artery and chronic obstruction of the right renal artery with atrophic kidney. The patient underwent Percutaneous Transluminal Angioplasty (PTA) of the left renal artery obtaining a fast improvement of renal function (serum creatinine  $2.89$  mg/dl at the discharge). We finally prescribed warfarin PO associated with aspirin  $100$  mg for 30 days after procedure.

**Conclusions:** Acute renal failure due to renal embolization is a rare disease and it should be suspected during a fast worsening of renal function. A well timed PTA is mandatory to obtain a significative improvement of renal function.

### Colecistite, non sempre la prima diagnosi è la più semplice...

F. Santoro<sup>1</sup>, F. Moscardello<sup>1</sup>, C. Santoro<sup>1</sup>, R. Testa<sup>2</sup>

<sup>1</sup>Pronto Soccorso e Medicina d'Urgenza, Azienda Ospedaliera Santa Maria degli Angeli, Pordenone; <sup>2</sup>Medicina Interna, Ospedale San Tommaso dei Battuti, Portogruaro (VE), Italy

La Pileflebite è la trombosi settica della v. porta, complicanza rara di un'infezione intra-addominale.

**Premesse:** Donna di 52 aa ricoverata per sepsi da colecistite litiasica (riscontro ecografico all'ingresso), con febbre, dolore addominale, leucocitosi, aumento della PCR, indici di colestasi. Recente pielonefrite ds in urolitiasi trattata con antibiotico terapia e posizionamento di stent ureterale.

**Materiali e Metodi:** In base alla clinica e al referto bioumorale-ecografico (litiasi della colecisti e ispessimento della parete) veniva praticata antibiotico terapia e per progressivo peggioramento Tc Addome (trombosi rami portali di sinistra). A ultima parte degli ematochimici evidenza di bassi livelli di Prot C ed S e si poneva diagnosi di Pileflebite di rami distali della vena porta conseguente a sepsi da colecistite litiasica con batteriemia sostenuta da gram-(E.Coli) in disordine protrombotico (deficit di Prot C ed S).

**Discussione:** Sfortunatamente ancora oggi la Pileflebite è sotto-diagnosticata ed in ogni caso la diagnosi è ritardata. L'eziologia è spesso polifattoriale e i fattori implicati comprendono disordini protrombotici e fattori locali quali infezioni di organi intraddominali (ad es colecistite). L'interessamento trombotico inizialmente interessa le diramazioni distali che drenano il sito di infezione con successiva estensione. Si presenta il caso in quanto esemplificativo di come un chiaro riscontro ecografico di colecistite possa mascherare l'importanza di valutare attentamente il circolo venoso portale e portare a una diagnosi tardiva di malattia avanzata.

**Only a severe sepsis?**F. Santoro<sup>1</sup>, F. Moscarriello<sup>1</sup>, C. Santoro<sup>1</sup>, E.R. Testa<sup>2</sup><sup>1</sup>Pronto Soccorso e Medicina d'Urgenza, Azienda Ospedaliera Santa Maria degli Angeli, Pordenone; <sup>2</sup>Dipartimento di Medicina Trasfusionale, Azienda Ospedaliera Santa Maria degli Angeli, Pordenone, Italy**Introduction:** 48 years old woman hospitalized for sepsis by infection of the soft tissue of her the left leg, characterized by fever, skin rash, leukocytosis, increased CRP, thrombocytopenia. In history: recently endovenous laser treatment of the left leg, infertility from endometriosis bowel operated and previous deep vein thrombosis,**Materials and Methods:** Practiced antibiotic therapy but progressive hematologic deterioration (persistence thrombocytopenia, acute anemia, rising LDH, elongation aPTT, presence of schistocytes and consumption of haptoglobin). Other measurements: Sonography of Soft Tissue; OncoMarkers; Blood cultures; Autoimmunity; ADAMTS13 (activities of 10%) and anti-ADAMTS13 antibody (absent).**Results:** The first results was high suspicion of thrombotic microangiopathy and initiated corticosteroid therapy and plasma infusion up to the start of plasma exchange (PEX) with resolution evidence. Later obtaining last part of the blood tests with evidence of positivity for LAC, ACA, Antibodies Anti-β2GPI and ANA, thus the confirmation of a definitive diagnosis of Antiphospholipid Syndrome secondary systemic lupus erythematosus complicated by microangiopathic hemolytic anemia (MAHA) and thrombocytopenia during sepsis in departing from the soft tissues.**Discussion:** The particularity of the case lies in the initiation/amplification of the complication of antiphospholipid syndrome LES-secondary by sepsis. Another peculiarity lies in the rapid resolution of the picture using the (PEX) in a situation where there is insufficient evidence to support the benefits of the procedure**Fibrillazione atriale spia di gravità di frattura sternale**F. Santoro<sup>1</sup>, F. Moscarriello<sup>1</sup>, C. Santoro<sup>1</sup>, R. Testa<sup>2</sup><sup>1</sup>Pronto Soccorso e Medicina d'Urgenza, Azienda Ospedaliera Santa Maria degli Angeli, Pordenone; <sup>2</sup>Medicina Interna, Ospedale San Tommaso dei Battuti, Portogruaro (VE), Italy**Caso clinico:** Uomo di 78 anni degente per trauma toracico chiuso riportante frattura sternale con disallineamento dei monconi, fratture costali bilateralmente PNX, contusioni polmonare, contusione miocardica con versamento pericardico non tampnante e contusione splenica. Durante la degenza permanenza episodi multiple recidive di FA con versamento pericardico invariato. In ottava giornata alla Tac Torace il versamento risultava incrementato in assenza di segni di sanguinamenti in atto. Dopo discussione collegiale (urgentista, cardiocirurgo e cardiologo) il paziente veniva trasferito presso la cardiocirurgia di riferimento e sottoposto a drenaggio pericardico e intervento di riduzione e sintesi di frattura scomposta sternale con interruzione di fibrillazione atriale e avvio di anticoagulazione a dosaggio terapeutico.**Discussione:** Le fratture dello sterno costituiscono un interessante capitolo di traumatologia per la loro rarità, per le possibili gravi complicanze e per le frequenti controversie terapeutiche cui possono dare origine. Regola fondamentale è sospettare ed escludere sempre lesioni in atto o in divenire in un paziente con fratture sternali. Nel nostro caso il grado di scomposizione della frattura identificava un paziente ad alto rischio di sviluppare complicanze. Interessante spunto è la fibrillazione atriale recidivante precoce predittore di incremento di versamento pericardico. Il caso inoltre ha permesso di confermare l'importanza della collaborazione fra specialisti di diverse UU.OO.**Oral erosions: the tip of the iceberg**F. Sardanelli<sup>1</sup>, G. Murdaca<sup>1</sup>, F. Puppo<sup>1</sup>, S. Negrini<sup>1</sup><sup>1</sup>IRCCS Az. Ospedaliera, Universitaria San Martino, IST di Genova, Italy

A 33 years old male presented with a 6 months history of oral erosions poorly responding to empirical antibiotic therapy or local and systemic NSAIDs administration. Due to local pain, the patient developed dysphagia and consequently weight loss. He denied

genital ulcers or ocular symptoms. Physical examination was unremarkable, except for the multiple oral erosions surrounded by inflamed mucosa. Laboratory investigations (complete blood count, ERS, CRP, vitamin B9, vitamin B12, ferritin, C3, C4, IgG-A-M) were within normal limits. All infectious tests (HSV, CMV, VZV, EBV, enterovirus, HCV, HBV, HIV and TP serology; TPHA, beta-D-glucan, histology for H. pylori, oropharyngeal swab) were negative. ANA was positive (1:160, speckled pattern) but ENA, ANCA, anti-dsDNA and anti-histone antibodies were negative as serology for celiac disease and genetic test for HLA-B51. A biopsy of the oral mucosa was obtained and immunofluorescence (IF) was performed. Histology of the biopsy was not conclusive, but direct IF showed the presence of IgG and C3 deposits in epidermal intercellular substance and indirect IF performed on monkey esophagus showed IgG deposit in epidermal intercellular substance. ELISA revealed the presence in the sera of antibodies anti-desmoglein (dsg) 3 but not anti-dsg 1, thus confirming the diagnosis of pemphigus vulgaris in its early stage. In conclusion, authors want to highlight that chronic oral erosions may be expression of an underlying systemic disease and pemphigus should be included in the differential diagnosis of such manifestations.

**Un raro ed enigmatico caso di severa stenosi carotide**A. Saturni<sup>1</sup>, E. Giannini<sup>1</sup>, L. Calcabrin<sup>1</sup>, R. Catalini<sup>1</sup><sup>1</sup>U.O. Medicina, Ospedale Generale Provinciale, Macerata, Italy**Premesse:** L'ateromasia carotide nel sesso femminile al di sotto dei 40 anni è estremamente rara: 0.3% per l'aterosclerosi moderata (stenosi <50%), 0% - 0,1% per l'aterosclerosi severa (stenosi del 70%).**Materiali:** Donna di 28 aa, normopeso (BMI 20), affetta da tiroidite di Hashimoto; episodi di lieve instabilità posturale; visita ORL nella norma. No tabagismo, no dislipidemia, no diabete, no ipertensione. Anamnesi familiare: zio materno e nonna materna deceduti a 38 e 42 aa per ictus ischemico, madre ipertesa e diabetica. Terapia: l-tiroxina 75 mcg/die. Esame fisico: soffio carotideo destro, lieve incertezza alla marcia sul posto. Esami ematici: colesterolo totale 162 mg/dl; LDL 108 mg/dl, HDL 54 mg/dl; lieve allungamento aptt ratio (1,26) e INR (1,32); deficit (36%) del fattore VII e (40%) fattore XII. Screening trombofilico, autoimmuno e per celiachia negativo. E.C.Doppler: placca ipoecogena e stenosi severa (90%) origine carotide interna destra. Angio-TC vasi del collo: placca lipidica e stenosi focale subocclusiva origine carotide interna dx. La paziente viene sottoposta ad endoarteriectomia carotide. Trattamento farmacologico; acido acetil-salilico 100 mg/die e rosuvastatina 10 mg/die.**Risultati:** Dopo 24 mesi di follow up semestrale (e.c.doppler e clinico): no restenosi, no instabilità posturale.**Conclusioni:** Rarissimo caso di severa ateromasia carotide in soggetto giovane femminile senza fattori di rischio cardiovascolare. Suggestiva l'anamnesi familiare ma difficile la correlazione con le anomalie del quadro coagulativo e con i livelli di LDL ed HDL.**Independent risk factors for mortality in critically ill patients with candidemia in Italian Internal Medicine wards**F. Sbrana<sup>1</sup>, E. Sozio<sup>2</sup>, M. Bassetti<sup>3</sup>, A. Ripoli<sup>1</sup>, F. Pieralli<sup>4</sup>, A.M. Azzini<sup>5</sup>, A. Moretini<sup>6</sup>, C. Nozzoli<sup>6</sup>, M. Merelli<sup>3</sup>, S. Rizzardo<sup>5</sup>, G. Bertolino<sup>7</sup>, C. Scarparo<sup>3</sup>, E. Concia<sup>3</sup>, C. Tascini<sup>8</sup><sup>1</sup>Fondazione Toscana Gabriele Monasterio, Pisa; <sup>2</sup>Emergency Medicine Unit, Nuovo Santa Chiara University Hospital, Azienda Ospedaliera Universitaria Pisana, Pisa; <sup>3</sup>Infectious Diseases Division, Santa Maria Misericordia University Hospital, Udine; <sup>4</sup>Intermediate care Unit, Azienda Ospedaliera Universitaria Careggi, Florence; <sup>5</sup>Infectious Disease Unit, Azienda Ospedaliera Universitaria Integrata di Verona, Verona; <sup>6</sup>Internal Medicine Unit, Azienda Ospedaliera Universitaria Careggi, Florence; <sup>7</sup>Pharmaceutical Department, Azienda Ospedaliera Universitaria Pisana, Santa Chiara, Pisa; <sup>8</sup>First Division of Infectious Diseases, Cotugno Hospital, Azienda Ospedaliera dei Colli, Napoli, Italy**Background:** Candida is an increasing cause of blood stream infection and is associated with significant morbidity and mortality. The aim of our study was to analyze the clinical aspects and the risk factors associated with mortality of patients with microbiolog-

ical diagnosis of bloodstream candidemia admitted in Internal Medicine Wards (IMWs).

**Materials and Methods:** We retrospectively reviewed data charts from four tertiary care University Hospitals in Italy (January 2012-December 2014). Every patient died within 30 days by the microbiological diagnosis of candidemia (case) have been matched with one survived patient affected by the same infection and hospitalized in IMWs (control) in a 1:1 ratio. Patient baseline characteristics and several infection-related variables were examined.

**Results:** During the 36-months study period 250 episodes of proven candidemia were registered in IMWs; 112 patients died within 30-days by the time of the first blood culture's positivity for *Candida spp.* By multivariate analysis, severe sepsis/septic shock (odds ratio [95%CI]=2.919 [1.62 - 5.35],  $p<0.001$ ) and concomitant chronic kidney failure resulted independent predictors of mortality (odds ratio [95%CI]=2.296 [1.07 - 5.12],  $p=0.036$ ) while steroid therapy was protective (odds ratio [95%CI]=0.461 [0.25 - 0.83],  $p=0.011$ ).

**Conclusions:** Medical-ward admitted patients who die with candidemia develop septic shock more frequently, therefore clinicians should recognize these patients before that this condition appears. The protective use of steroid in this setting warrant further investigation.

### An atypical case of giant cell arteritis revealed by pernicious vomiting

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DAI Cardioracovascolare, Firenze, Italy

**Objectives:** We present an atypical onset of Giant Cell Arteritis (GCA) characterized by persistence of vomiting, without classical signs of Horton disease.

**Methods:** A patient with recent beginning of incoercible vomiting came to our attention. At first checks, no typical symptoms of vasculitis were evident in the story (e.g. no headache, nor distended temporal arteries). The only accompanying signs were a slight dysmetria and occasional dizziness. Initially, a cerebrovascular disease was supposed. A series of radiological investigations and laboratory tests were performed, revealing an unsuspected picture of GCA.

**Results:** The instrumental finding clearly showed a picture of florid vasculitis. In particular, we performed a Doppler ultrasound of the temporal arteries, with evidence of inflammatory perivascular oedema, extremely suggestive for GCA. Also according to PET-FDG and MRI reports a diagnosis of Horton vasculitis was formulated, even without histological confirmation and poor adherence to clinical criteria of disease. A timely steroid treatment quickly reverted symptoms, mitigating risks of irreversible complications.

**Conclusions:** Despite the GCA diagnosis still relates to biopsy confirmation, an adequate instrumental study could replace such invasive investigation in most cases. Particularly the Doppler ultrasound gives a good quality of information, providing a non-invasive diagnosis, that is almost constantly confirmed by biopsy specimen. Thus it is reasonable to suppose a future less invasive but equally accurate approach.

### Giant pericardial cyst: incidental finding in a healthy man

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DAI Cardioracovascolare, Firenze, Italy

**Objectives:** We present the case of giant pericardial cyst, found after car accident in a 75-year-old man otherwise healthy.

**Methods:** The patient was brought to the emergency room because of car accident; the instrumental examinations performed for trauma showed a side finding of widened mediastinal shadow. Therefore further exams were carried out, including PET-FDG, chest-CT, cardiac ultrasound and MRI.

**Results:** All instrumental investigations confirmed the presence of a giant pericardial cyst, whose dimensions were about 11x4,5x8,5 cm, with internal septa, characterized by soft enhancement after

contrast medium. There wasn't cardiac impairment, with an ejection fraction equal to 0,60. The MRI described a smooth lesion, apparently cleavable from ascending aorta and pulmonary artery walls, likely originating from pericardial leaflet. The PET-FDG was negative for pathological uptake. Despite the absolutely benign lesion aspect and absence of symptoms, the cardiac surgery consulting advised for elective excision because of large dimension.

**Conclusions:** Pericardial cysts are very rare findings, usually smaller than 3 cm and incidentally discovered. They represent about 7% of all mediastinal masses, with predilection for right heart sections. Although their indolent behavior, the insidious position asks for a prudential radicality. Among alternative strategies, there is cyst aspiration, unfortunately burdened with a recurrence rate up to a third of cases. In our patient, even if no symptoms were found, surgeons advised for lesion removal, in relation to its size and localization.

### When calcium is out of control: a sudden and serious hypercalcemic crisis as onset of primary hyperparathyroidism disease

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DAI Cardioracovascolare, Firenze, Italy

**Objectives:** We present a serious case of Hypercalcemic Crisis as onset of Primary Hyperparathyroidism.

**Methods:** An otherwise healthy man was brought twice to the ER for vomiting, myalgia, constipation and postural instability. The first time clinical presentation was dominated by acute kidney injury, troponin rising and calcium ion level of 9.3 mg/dl. The evidence of left ventricle hypertrophy and bilateral kidneys enlargement initially suggested infiltrative disease. The second time a Primary Hyperparathyroidism picture was clearer because of the evidence of adenoma at scintigraphy and increased PTH levels; the new onset of severe hypercalcemia (serum calcium of 23 mg/dl) put in serious jeopardy of life our patient. Only after stabilization, parathyroidectomy could be performed. Several instrumental investigations were scheduled to explain cardiac findings.

**Conclusions:** Hypercalcemic Crisis is a very rare presentation of hyperparathyroidism. Although uncommon, it represents a real life threatening, if not promptly addressed. Hydration, diuretics and bisphosphonates act as a bridge to the only effective treatment: surgery.

**Results:** The atypical onset and the coexistent ventricular hypertrophy initially misled our diagnosis. Instead serum calcium and cardiovascular impairment correlation is suggested from the literature, where left ventricular hypertrophy is already described as finding potentially associated to hypercalcemia. Our investigations excluded a primitive cardiomyopathy, bringing the cardiac picture back to the deleterious effect of PTH on heart and vascular system.

### A case of hypocomplementemic urticarial vasculitis with cardiac valvular involvement: the eighth patient known in the world

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DAI Cardioracovascolare, Firenze, Italy

**Objectives:** We describe a very rare case of Hypocomplementemic Urticarial Vasculitis syndrome (HUVS).

**Case discussion:** A 32 years old woman was brought to the ER for onset of right hemiplegia and global aphasia due to cerebral haemorrhage. Her story was extremely difficult: she suffered from a severe HUVS form with cardiac valvular involvement. During last years she already underwent cardiac surgery twice for chronic inflammatory process involving aortic and mitral valves. Despite their prosthetic replacement, a further surgery would be necessary, for the recent occurrence of valvular abscess evidenced by transesophageal echocardiogram, caused by a *Listeria monocytogenes* endocarditis, probably due to the long immunosuppressive therapy. The recent brain embolization was treated endovascularly in

our hospital and after this, we set appropriate antibiotic therapy, pending possible new surgery. HVUS is a very rare disease involving small vessels and characterized by chronic urticarial vasculitis, arthralgia, arthritis, and activation of the classical complement pathway. Before this patient, we could only find seven cases of HVUS with cardiac valvular involvement in the literature. Unlike the already described cases, ours shows a broader antibody positivity, with an early and serious cardiovascular involvement.

**Conclusions:** Though multidisciplinary and careful management, this case is still a challenge, because of patient's severe clinical impairment and labile compensation. Biochemical features and its complexity makes it a rarity in a disease context yet to understand.

### A large cardiac mass of left sections in a young man

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, S. Signorino Gelo<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DA1 Cardiotoracovascolare, Firenze, Italy

**Objectives:** We describe a 39-year-old man's case, suffering from a cardiac malignancy with hemodynamic commitment, accidentally discovered.

**Case description and Issues:** A 39-year-old man presented to the ER for a 10 days history of asthenia and worsening exertional dyspnea. An echocardiogram showed a large atrial mass, with a severe haemodynamic commitment. The location on left atrium epidemiologically matched with myxoma diagnosis, but a further cardiac-Doppler showed an inhomogeneous mass, adherent to the mitral ring and involving both left atrial and ventricle, causing a severe valvular stenosis, suggestive for malignancy. Thus the patient performed a cardiac-MRI, confirming the neoplasm localization with parietal infiltration, pericardial extension and effusion, while several investigations ruled out metastasis. Finally, the patient underwent heart surgery and a partial excision was performed. Macroscopically the tumor had a scirrhous consistency and a diameter of about 5 cm. Currently, we are waiting for the histologic report.

**Conclusions:** Cardiac masses are rare entities and their evaluation may be a diagnostic challenge. Myxoma represent the most common primary cardiac neoplasm in adults, while about 25% of other primary ones are malignant. Even if localization and first checks supported a benign lesion, our patient is likely suffering from a sarcoma form, whose incomplete debulking makes further therapies necessary. The correct interpretation of instrumental findings together with a possible radical surgery are mandatory for a successful therapeutic strategy.

### Management of cerebrovascular complications during infective endocarditis: a surgical challenge on the edge of priorities

V. Scheggi<sup>1</sup>, C. Sparano<sup>1</sup>, B. Alterini<sup>1</sup>

<sup>1</sup>Azienda Ospedaliero-Universitario Careggi, Firenze; Medicina Interna ad Indirizzo Cardiovascolare e Perioperatorio; Dipartimento DA1 Cardiotoracovascolare, Firenze, Italy

**Objectives:** We present the case of a woman suffering from an aneurysm of the right carotid siphon in a concomitant endocarditis.

**Case presentation:** A 65-years-old woman started to show intention tremor and right ptosis, suggestive of III cranial nerve paralysis. She recently treated pneumonia, emerged during a corticosteroid cycle for migrants aches and facial neuralgia. A brain MRI demonstrated a right carotid siphon aneurysm, subsequently confirmed by angiography. She would have to undergo surgery, but it was postponed because of a persistent fever. Among several investigations, she performed a transesophageal echocardiogram, showing a coarse vegetation of about 15 mm on mitral valve, with severe insufficiency requiring surgical correction. Blood cultures were positive for *Streptococcus gordonii*, thus an antibiotic target therapy was established. Even if the mycotic origin of the aneurysm was presumed and still uncertain, due to the absence of clear accompanying signs (*i.e.* peri-lesional haematoma, nor

hypermetabolism at PET), the surgical correction is necessary for the mass-effect exerted on contiguous organs.

**Discussion:** Cerebrovascular complications are a controversial problem in endocarditis. The risk of brain haemorrhage, during systemic heparinization (referred but not supported by evidence) or an aggravation of neurological deficits due to Cardiopulmonary bypass suggest that cerebral surgery should take priority, if clinical conditions allow it. Timing-management is actually left to the specialists yet. In our case, we successfully performed cardiac surgery first.

### Familial combined deficiency of the vitamin K-dependent clotting factors: report of two cases diagnosed in adulthood

M. Schiavone<sup>1</sup>, C. Mastrobuoni<sup>1</sup>, C. Palermo Rossetti<sup>1</sup>, L. Ferrara<sup>1</sup>, F. Gallucci<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>Internal Medicine Department, Unit 3, Cardarelli Hospital, Napoli, Italy

Hereditary combined vitamin K-dependent clotting factors deficiency (VKCFD) is a rare congenital bleeding disorder resulting from variably decreased levels of coagulation factors II, VII, IX and X as well as natural anticoagulants protein C, protein S and protein Z defect that forms part of a wider group of rare disorders named *Familial Multiple Coagulation Factor Deficiencies* (FM-CFDs). FMCDFs arise from a genetic defect(s) and are transmissible as a familial trait. The spectrum of bleeding symptoms ranges from mild to severe with onset; the diagnosis in severe cases is generally made in the neonatal age whereas this occurrence in adulthood is very unusual. Lab-tests are difficult requiring specific experience.

**Case Report:** We recently observed two patients admitted in our Unit because of recurrent bleeding and anaemia. The first one (female, 68 years-old) had a long previous history of recurrent respiratory infections with haemoptysis; during 3 previous surgical interventions she presented clotting defects (not investigated). At admission (lobar pneumonitis, haemoptysis, severe dyspnoea), deficiency of factors II, VII, IX and X was discovered. The second patient (male, 32 years-old) presented a history of recurrent bleeding ex ore in infancy when he took aspirin and a previous diagnosis of genetic myopathy. At admission (soft-tissue haemorrhage, rectal and mouth haemorrhage with severe secondary anaemia) deficiency of factors II, VII and IX was documented. Both cases achieved complete recovery with supplementation (fresh-frozen plasma, vitamin K, coagulation factors).

### Epstein-Barr virus-associated inflammatory pseudotumor of the spleen

A.M. Schimizzi<sup>1</sup>, W. Grassi<sup>2</sup>, R. Campagnacci<sup>3</sup>, G. Passarini<sup>4</sup>, G. Goteri<sup>5</sup>

<sup>1</sup>Internal Medicine Department, Hospital Jesi, Area Vasta 2 ASUR Marche; <sup>2</sup>Rheumatologic Department, Hospital Jesi, Area Vasta 2, ASUR Marche; <sup>3</sup>Surgery Department, Hospital Jesi, Area Vasta 2, ASUR Marche; <sup>4</sup>Radiology Department, Hospital Jesi, Area Vasta 2, ASUR Marche; <sup>5</sup>Pathological Anatomy Department, Azienda Ospedaliera, Torrette, Ancona, Italy

**Case report:** Splenic inflammatory pseudotumors are rare and pose problems of differential diagnosis with tumors. A 46-years-old woman was referred to the Rheumatology Department for investigation of recurrent episodes of tonsillitis, joint pain, erythema nodosum and fever. An abdomen RMI reported a spleen mass. During hospitalization, blood test were suggestive of a chronic inflammation and serologic test were significant to EBV prior infection (VCA-IgM 10 U/ml, VCA-IgG 220 UI/ml and EBNA-IgG 174 UI/ml). There was no evidence of lymphadenopathy or hepatosplenomegaly. The patient underwent tonsillectomy and has been treated with antibiotic therapy, but with a recurrence of the symptoms. Then she was referred for an abdomen MRI and a PET-CT scan that confirmed the mass of the spleen whose dimensions are slightly increased. An uncomplicated, elective, laparoscopy was performed for diagnostic and treatment purpose. Microscopically, some sections showed a proliferation of spindle cells that show reactivity to muscle markers (actin) histiocytic (CD68) and follicular dendritic cells (CD23, CD21, D240) and widespread reaction *in situ* hybridization for EBV. The patient had an uncompli-

cated post-operative course with normalization of inflammation tests. One year later, she remains disease-free with no evidence of recurrence.

**Conclusions:** The splenic presentation of inflammatory pseudotumor is rare and only sporadic case reports has been described in the literature. This case serves as a reminder to consider this rare diagnosis when evaluating patients with a splenic mass.

### Sweet's syndrome associated with myelodysplastic syndrome

G. Scollo<sup>1</sup>, D. Tettamanzi<sup>1</sup>, C. Bassino<sup>1</sup>, D. Sala<sup>1</sup>, M. Casartelli<sup>1</sup>, P.F. Gerosa<sup>1</sup>, E. Limido<sup>1</sup>

<sup>1</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù U.O. Medicina Generale, Cantù (CO), Italy

Sweet's syndrome (SS) is known often to associate with solid tumours and non-lymphocytic leukaemia (NLL); however, there have been very few reports of Sweet's syndrome associated with myelodysplastic syndrome (MDS). It was reported that improvement and exacerbation of these two syndromes occurred simultaneously. We present here a 76-year-old male with Sweet's syndrome associated with refractory anaemia with excess blast in transformation (RAEB in T). He complained of fever and the abrupt appearance of erythematous, painful, cutaneous plaques, primarily on the upper extremities, head, and neck. At the time of admission to our Hospital, the peripheral blood showed mild leukocytopenia, anaemia thrombocytopenia and increasing of reactive C Protein. Blood and urine cultures were negative, excluding septic fever. Dermatological evaluation suggest the suspect of SS next confirmed by skin biopsy. A bone marrow biopsy revealed a normocellular bone marrow (30-35%) with prominent granulocyte cells with immature precursor in centrilobular site associated with dysplastic erythroid and megakaryocyte cells with abnormalities, CD34+ cells representing the 20% of medullar cellularity. From the haematological findings and the result of skin biopsy, the patient was diagnosed as having MDS complicated by Sweet's syndrome. Prednisolone therapy started at time of admission was effective to improve his fever and skin eruptions however new skin spots and fever occurred when the prednisone dose was tapered. This case report describes the rare occurrence of SS during the transformation from a MDS into acute NLL.

### Non-alcoholic Wernicke's encephalopathy

M.C. Scorrano<sup>1</sup>, F. Parente<sup>1</sup>, A. Cezza<sup>1</sup>, A. Valiani<sup>1</sup>, M. De Pascalis<sup>1</sup>, M. Serra<sup>1</sup>, A. Mazzotta<sup>1</sup>, G. Castrignanò<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "V. Fazzi", Lecce, Italy

**Premise and Purpose of the study:** Wernicke's encephalopathy (WE) is a CNS disorder caused by a thiamine deficiency (vitamin B1) and characterized for cerebellar ataxia, ophthalmoplegia and cognitive disorders. Chronic alcoholism is the most common cause. Literature reports numerous cases of WE in non-alcoholic patients but with other risk factors (prolonged total parenteral nutrition (TPN), gastro-enteric surgery, hemodialysis (HD), cancer, vomiting and chronic diarrhea, anorexia) that, as in our case, should be carefully considered.

**Materials and Methods:** 62 yo female patient reported abdominal pain, hyporexia and anuria. Diagnosis of acute renal failure was made and cycles of HD were started. After onset of cholangiopancreatitis with persistent vomit, TPN was begun. Following drowsy state and ophthalmoplegia, magnetic resonance imaging (MRI) was administered which reported symmetric and bilateral signal alteration in thalamic and periaqueductal regions.

**Results:** MRI findings agreed with deficiency-based encephalopathy. Therefore, patient was treated with thiamine (intramuscular dose of 300 mg/die with a gradual reduction of the dose) and reported a remarkable clinical improvement.

**Conclusions:** Early diagnosis of WE was made due to the detection of specific risk factors without alcohol history. MRI is a fundamental diagnostic instrument in detecting pathognomonic alterations of this pathology. Timely beginning of thiamine therapy is effective and essential for a clear improvement of the prognosis.

### Amyloidosis and sensory-motor polyneuropathy: a case report

G. Secco<sup>1</sup>, M. Tonani<sup>1</sup>, G. Magrini<sup>2</sup>, P. Milani<sup>3</sup>, A. Foli<sup>3</sup>, S. Perlini<sup>4</sup>, A. Martignoni<sup>1</sup>, G. Palladini<sup>3</sup>

<sup>1</sup>SS Malattie Cardio e Cerebrovascolari, SC Medicina Generale 2, Dipartimento Area Medica, Policlinico Fondazione IRCCS San Matteo, Pavia; <sup>2</sup>Ambulatorio Ecocardiografia, SC Cardiologia, Policlinico Fondazione IRCCS San Matteo, Pavia; <sup>3</sup>Amyloidosis Research and Treatment Center, Fondazione IRCCS Policlinico San Matteo, and Department of Molecular Medicine, University of Pavia, Pavia; <sup>4</sup>SC Medicina Generale 2, Dipartimento Area Medica, Policlinico Fondazione IRCCS San Matteo, Pavia, Italy

**Introduction:** Systemic amyloidoses are rare diseases caused by deposition of autologous proteins in tissues leading to organ dysfunction mimicking more common conditions. Peripheral nervous system and cardiac involvement are present in light chain (AL) and mutated transthyretin (ATTRm) amyloidosis.

**Case:** A 75 yo woman was admitted in Stroke Unit with subacute fronto-parietal ischaemic cardioembolic stroke, atrial fibrillation and acute myocardial infarction (ECG abnormalities and TNI typical curve). Patient had sensory-motor axonal-demyelinating polyneuropathy, with gastrointestinal (untreatable nausea) and vascular dysautonomic involvement (severe hypotension) and longstanding diabetes mellitus type 2. At echocardiogram concentric hypertrophy (hyperechogenic myocardial texture) was found, rising suspect of cardiac amyloidosis. Family history was unremarkable. No monoclonal protein at serum and urine immunofixation and no proteinuria were detected, serum creatinine was 0,7; however, circulating free light chain ratio resulted slightly elevated ( $\kappa/\lambda$  1,88), proBNP 477 ng/L. Periumbilical fat biopsy was positive. A diagnosis of amyloidosis with cardiac and peripheral and autonomic nervous system involvement was made.

**Discussion:** The coexistence of different causes of neuropathy made the differential challenging in this patient. Immuno-electron microscopy and DNA studies are ongoing for amyloid typing.

**Conclusions:** Amyloidosis should be suspected in the presence of a combination of signs and symptoms pointing to multi-organ involvement, even in patients with relevant comorbidity.

### Indice di Winsor e funzione renale nell'anziano

S. Selvaggio<sup>1</sup>, G. Brugaletta<sup>1</sup>, G. Romano<sup>2</sup>, L. Zanolì<sup>3</sup>, R. Romano<sup>4</sup>, S. Sciacca<sup>5</sup>, A. Digiaco<sup>2</sup>

<sup>1</sup>Geriatra, Ospedale Garibaldi, Catania; <sup>2</sup>Medicina Interna, Ospedale Guzzardi, Vittoria (RG); <sup>3</sup>Medicina Interna, Policlinico Universitario, Catania; <sup>4</sup>Geriatra, Ospedale ASP 8, Lentini (SR); <sup>5</sup>SIMT, Ospedale Garibaldi, Catania, Italy

**Scopo:** Negli anziani la creatinina sierica (sCr) è ridotta per diminuzione della massa muscolare e, pertanto, tende a sottostimare la presenza di insufficienza renale. In particolare, non è noto se nei pazienti anziani (PzA) con valori di sCr normali per la popolazione generale l'Indice di Winsor (IW) sia associato alla funzione renale.

**Metodi:** È stato studiato un campione di 117 PzA consecutivi ricoverati in UO medica ospedaliera (età 80±7 anni, maschi 36%, diabete 32%, cardiopatia ischemica 9%, cerebrovasculopatia cronica 8%, ipertensione 59%, scompenso cardiaco 9%), con valori di sCr inferiori a 1.2 mg/dl, sottoposti a misurazione dell'IW con sonda Doppler CW. Per la misurazione della funzione renale è stata utilizzata la formula di Cockcroft-Gault che nei PzA ha una maggiore sensibilità e specificità per insufficienza renale cronica rispetto alle formule MDRD e CKD-EP (Zanolì L et al. The Scientific World Journal 2014). L'insufficienza renale occulta (IRO) è stata definita dalla presenza di clearance della creatinina <60 ml/min e sCr <1.2 mg/dl.

**Risultati:** Il 47% del campione aveva IRO. È stata trovata una correlazione significativa tra IW elevato e riduzione della funzione renale (beta -4.8 ml/min; 95%CI da -8.8 a -0.7 ml/min; p=0.02). Questa associazione è stata confermata anche dopo aggiustamento per i fattori di rischio cardiovascolare.

**Conclusioni:** L'aumento dell'IW è associato a riduzione della funzione renale nel paziente anziano con sCr nella norma. In questa popolazione con sCr nella norma, quasi la metà dei soggetti presentava IRO.

### Tecniche preventive delle infezioni ospedaliere: audit interno su personale infermieristico

C. Sepe<sup>1</sup>, G. Di Ronza<sup>2</sup>

<sup>1</sup>UOSC Cardiologia Riabilitativa, AORN A. Cardarelli, Napoli;

<sup>2</sup>UOSC Medicina Interna 3, AORN A. Cardarelli, Napoli, Italy

**Premesse e Scopo dello studio:** Le infezioni ospedaliere (IO) rappresentano la complicanza più frequente e grave che si verifica durante l'assistenza sanitaria. Le IO hanno un costo sia in termini di salute che in termini economici. È indispensabile, quindi, adottare pratiche assistenziali sicure, in grado di prevenire o controllare la trasmissione di tali infezioni.

**Materiali e Metodi:** Indagine, di tipo osservazionale conoscitiva. La ricerca mediante somministrazione di un questionario a risposta multipla ha riguardato 100 infermieri che lavorano, in servizio a tempo indeterminato, nei Dipartimenti Medico Specialistico e delle Chirurgie. I dati raccolti sono stati inseriti in un file Microsoft® Excel. Per l'analisi dei dati con calcolo di medie, frequenze e percentuali sono state utilizzate le funzioni matematiche e statistiche di Excel.

**Risultati:** Alla luce dei risultati ottenuti si evince che l'infermiere non ha una buona percezione delle metodiche per evitare l'insorgenza delle infezioni ospedaliere; inoltre ha necessità di corsi di aggiornamento teorico-pratico più frequenti; il 70%, infatti, ha manifestato questa esigenza.

**Conclusioni:** Il controllo delle infezioni ospedaliere si può attuare solo se gli operatori sanitari conoscono bene le metodiche di prevenzione. Alla luce dei risultati ottenuti si provvederà ad organizzare per il personale infermieristico un evento formativo in merito alle metodiche di prevenzione delle IO, al fine di migliorare la conoscenza del problema. Al termine del corso si ripeterà il questionario usato per lo studio in oggetto.

### Danno epatico da farmaci non convenzionali: revisione della letteratura

F.S. Serino<sup>1</sup>, L. Di Donato<sup>1</sup>, M. Scanferlato<sup>1</sup>, C. Bergamo<sup>2</sup>

<sup>1</sup>UOC Medicina Generale, Portogruaro (VE); <sup>2</sup>Medico Tirocinante, Italy

**Premessa e Scopo dello studio:** I farmaci sono una causa importante di epatotossicità. Nelle banche dati disponibili in rete sono elencati i principi attivi responsabili. Negli anni è aumentato l'uso di integratori dietetici e di erboristeria per la loro "innocuità" anche se sono in crescita segnalazioni di danno epatico farmacologico (DEF). Spesso non si riesce ad individuare il componente responsabile.

**Materiali e Metodi:** La diagnosi è difficile perché i quadri clinico-laboratoristici sono aspecifici. Clinicamente distinguiamo quadri citolitici, colestatici o misti. La valutazione dei tempi di comparsa, evoluzione, regressione di un sospetto DEF permette di definire casi in cui la diagnosi è certa fino a forme dove può essere esclusa con sufficiente certezza.

**Risultati:** In letteratura il limite è che vi sono pochi studi controllati o singoli case report. La valutazione della storia naturale suggerisce che il DEF cronico sia un'evenienza meno rara di quanto si ritenesse. All'ISS è stato istituito un board di sorveglianza sulle reazioni avverse da prodotti non convenzionali basato su singole segnalazioni, la cui valutazione è affidata ad un team multidisciplinare.

**Conclusioni:** Si sottolinea cautela sull'uso di tali prodotti assunti per automedicazione che possono essere causa di DEF dovuto ai componenti, alla contaminazione fraudolenta con sostanze nocive, alle interazioni con i farmaci convenzionali o anche in soggetti sensibili. È necessario monitorarne l'uso mediante la formazione del personale sanitario, al fine di educare l'utente all'utilizzo consapevole. Un'accurata anamnesi deve sempre includere l'assunzione di prodotti "naturali".

### A phenobarbital overdose: a case report

A. Serruto<sup>1</sup>, M. Soresi<sup>1</sup>, E. Pollaccia<sup>1</sup>, M.G. Minissale<sup>1</sup>, L. Giannitrapani<sup>1</sup>, G. Montalto<sup>1</sup>, A. Licata<sup>1</sup>

<sup>1</sup>Dipartimento Biomedico di Medicina Interna e Specialistica, Policlinico Universitario, Palermo, Italy

**Background:** Phenobarbital is a long-acting barbiturate, responsible for many cases of poisoning, from unintentional overdose or attempted suicide. We report a case of phenobarbital overdose in a patient with history of depression.

**Patients and Methods:** A 60 year old woman was admitted to our Internal Medicine Unit for drowsiness, irritability, difficulties in the maintenance of an upright position, dysphasia and weakness. She was suffering from depression and epilepsy and treated with phenobarbital 150 mg/die.

**Results:** At the admittance, she had high fever and neck stiffness; phenobarbital serum levels were 71.2 mcg/ml (3 times u.n.l.); aminotransferases were 12-17u.n.l. Arterial blood pressure was 80/50 mmHg. An inflammatory meningeal process was excluded by lumbar puncture; a brain and spinal cord CT scan excluded spine bone lesions and ischemic stroke. In the suspect of an overdose, a protocol of urine alkalinization was applied resulting in a reduction of phenobarbital levels below the therapeutic range in about 6 days, with state of consciousness, cognitive and behavioral functions improvement. A rapid normalization in aminotransferases levels was noted and serology for hepatitis viruses (HAV, HBV, CMV, EBV, HSV) resulted negative.

**Conclusions:** In our patient phenobarbital was responsible for stupor, hypotension, hypertonicity and aminotransferases elevation, whereas fever was due to a concomitant pulmonary inflammatory process resolved after antibiotic therapy. Despite the use of these drugs has been progressively reduced, the number overdose reports remains still high.

### A strange chronic abdominal pain

E. Settimo<sup>1</sup>, C. Appice<sup>1</sup>, P. Buonamico<sup>1</sup>, P. Portincasa<sup>1</sup>

<sup>1</sup>Medicina Interna "A. Murri", Bari, Italy

A 68 yo man was admitted to the Internal Medicine dept for a chronic abdominal pain radiated to back and marked by fasting since 8 months. Abdomen US was normal. EGDS showed HP infection, treated by antibiotic therapy. Despite HP eradication, the abdominal pain persisted for 3 months with three successive normal abdomen US the last 5 days before admission. On admission his blood tests were normal, except for a slight increase of CA 19.9. Abdomen CT showed an inhomogeneous cystic formation in the left hepatic lobe, which caused dilation of bile ducts and MRI confirmed the bile ducts dilation but added a new data: it was caused by a 2cm solid tissue in the II/III segment, which nature was probably heterologous. The patient was addressed to general surgery dept and he underwent left lobectomy. Histology concluded for *in situ* Hepatobiliary cystoadenocarcinoma born on a multilocular cystadenoma. Intrahepatic biliary cystic tumors represents only 5% of all intrahepatic cystic diseases and they often are asymptomatic, so diagnosis comes often too late to obtain a complete cure. In our case the pain was probably caused by nervous infiltration or compression on Glisson's capsule. In conclusion, a chronic abdominal pain can be the tip of the iceberg in a pathology that can reveal his presence much lately and deserves neat follow up.

### "Hide-and-see" sarcoidosis: pulmonary fibrosis masked by cyanotic heart disease - case report

R. Sgariglia<sup>1</sup>, L. Sanesi<sup>1</sup>, S. Alessio<sup>1</sup>, M. Giuliani<sup>1</sup>, M. Fioretti<sup>1</sup>

<sup>1</sup>Department of Medicine, University of Perugia, Internal Medicine Unit, S. Maria Hospital, Terni, Italy

**Introduction:** Pulmonary hypertension (PH) is characterized by pulmonary artery medium pressure  $\geq 25$  mmHg at rest. According to new guidelines, it could be due to a primary increase in the pulmonary arterial system (GROUP1) or secondary to congenital and acquired heart diseases (GROUP2), lung diseases (GROUP3), pulmonary artery thromboembolism (GROUP4) and others (GROUP5), including haematological, systemic and metabolic disorders.

**Case report:** A 60-year-old woman affected by Eisenmenger Syndrome (ES) presented palpable purpura to lower limbs and worsening of dyspnea. She also referred episodes of chest pain. She has acrocyanosis, clubbing, and conjunctival injection. In cardiac auscultation a fixed split S2 was finding and in lung auscultation crackling was present in both sides. Blood test showed severe

polyglobulia (Hb 22 g/dL), thrombocytopenia (PTL 93.000/mmc) and hypercalcemia (11 mg/dL). Autoimmune assay: cANCA and ANA positivity. A chest HRCT revealed bilateral calcified hilum lymphadenopathy and peri-lymphatic micronodules turning into interstitial and subpleural thickenings, suggestive of sarcoidosis. Neither BAL nor lung biopsy could be performed to confirm the diagnosis because of her bad clinical condition.

**Discussion:** Sarcoidosis was probably underdiagnosed for years until it has deteriorated, leading to severe pulmonary fibrosis. That is because of the presence of ES, which masked sarcoidosis clinical signs.

**Conclusions:** Sometimes there may be an overlap of PH etiologies, which can implicate delays in diagnosis and therapy leading to more severe complications.

### New onset inguinal hernia as a very atypical presentation of a metastatic cholangiocarcinoma diagnosed by bedside ultrasound

C. Sgarlata<sup>1</sup>, S. Bagnoli<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** A 59-year-old man presented to our attention complaining inguinal pain, new onset inguinal right hernia and asthenia.

**Case report:** On admission the patients showed good general conditions and vital parameters within the normal limits; his past medical history was unremarkable. Physical examination was also normal except for the presence of intermittent right inguinal pain with the finding of a reducible inguinal hernia. A bedside abdomen ultrasound evaluation revealed the presence of moderate ascites and of a massive thickening of the gallbladder wall with liver diffuse infiltration. Routine blood tests were within the normal limits except for the presence of an elevated value of gamma-glutamyl transpeptidase value (626 IU/l). A CT scan of the thorax and of the abdomen confirmed the presence of gallbladder diffuse thickening with diffuse hepatic infiltration, numerous bilateral lung, hip metastasis and peritoneal carcinosis were also present. Biopsy confirmed the diagnosis of primitive gallbladder cholangiocarcinoma and the patients was then addressed to the oncology department.

**Discussion and Conclusions:** Our case describes a very paucisymptomatic presentation of a metastatic cholangiocarcinoma despite the presence of diffuse liver infiltration and systemic metastasis. This case, although probably rare and extreme, emphasize the effectiveness of a prompt availability of bedside ultrasound to improve and accelerate the diagnostic process especially in patients with atypical clinical presentations that can make the diagnosis insidious.

### A case of pulmonary embolism due to left subclavian vein thrombosis by compression of massive intrathoracic goiter: a bedside "multidistrict ultrasound" diagnosis

C. Sgarlata<sup>1</sup>, S. Bagnoli<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** Upper-extremity deep vein thrombosis (UEDVT) is a clinical condition leading to pulmonary embolism (PE) in up to 30% of cases; it is usually associated with an iatrogenic origin but it may be rarely related to spontaneous diseases, especially intrathoracic neoplasms. We describe a case of bilateral PE caused by left subclavian vein thrombosis (LSVT) due to compression by a giant intrathoracic goiter.

**Case report:** A 83 year old woman was admitted to our ward for the onset of fever and diarrhea. Medical history was unremarkable except for a recent acute bronchitis treated with ceftriaxone. Physical examination revealed normal blood pressure, irregular

110 bpm HR, crackles at lung bases. Blood tests were within the normal range except for the presence of leukocytosis, mild anemia and CRP value increase. Testing for C. difficile was positive so oral metronidazole was administered. EKG showed AF. A bedside US evaluation of the chest showed a diffuse B lines pattern, multiple subpleural cuneiform areas of thickening and mild pleural effusion. We performed a chest contrast CT scan which showed the presence of bilateral PE and of a giant intrathoracic goiter. A US examination of abdomen, lower and upper limbs was carried out with the finding of a LSVT thrombosis due to compression by the large goiter. Patient's clinical conditions rapidly improved with diuretics, NAO with apixaban was started.

**Discussion and Conclusions:** This case emphasizes how bedside multidistrict US evaluation may sometimes provide a powerful support to the internist facilitating the diagnosis.

### An unexpected ultrasound finding: a large aneurysm of the inferior vena cava in a 50-year-old man affected by primary myelofibrosis and Budd Chiari syndrome

C. Sgarlata<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** IVC aneurysm is an extremely rare but potentially fatal condition. We report a case of a large IVC aneurysm in a patients affected by primary myelofibrosis and Buddchiari syndrome (BCS).

**Case report:** A 50-year-old man was admitted to our ward presenting dyspnoea, anasarca and malaise. He had a history of primary myelofibrosis and BCS. Physical examination revealed crackles at lung bases and markable peripheral edema. Abdomen was painless with massive splenomegaly. Blood tests showed Hb 12,1 g/dl, INR 1.84, hyperbilirubinemia (3.58 mg/dl) and hyperammonemia (197 mcg/dL). Abdominal US revealed hypertrophy of caudate lobe, mild ascites and the presence of a large aneurysm of the IVC (max dm 7 cm); spleen BPD was 38 cm. Abdomen CT scan confirmed a 7 cm subhepatic IVC aneurysm at infra and supra-renal level. Patient conditions rapidly improved with IV diuretics therapy. For the management of the IVC aneurysm after a vascular surgeon and interventional radiology evaluation we decided for a US follow up strategy.

**Discussion and Conclusions:** IVC aneurysm is extremely rare and since its first description by Abbott in 1950 only about fifty cases were reported. In our case we believe that the IVC aneurysm has formed over the years due to the venous flow hemodynamic alterations related to BCS and splenomegaly. Due to the rarity of this condition there are not available guidelines for the management. Our choice was that of a US follow up strategy and it has been driven by a careful evaluation of the benefit risk ratio

### Bedside lung ultrasonography in the diagnosis of interstitial pneumonia in a patient with negative chest X-ray. A case report

C. Sgarlata<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** Lung ultrasound (LUS) is a powerful tool that can significantly improve the diagnostic accuracy of physical examination facilitating the rapid identification of the origin of dyspnea. Numerous studies validated the effectiveness of LUS in the diagnosis of various diseases (e.g. acute pulmonary edema, pneumonia, pleural effusion and pneumothorax). We describe a case of interstitial pneumonia with a negative chest X ray in which bedside LUS allowed a rapid and effective diagnostic orientation.

**Case report:** A 38 years old man was admitted to our ward complaining dyspnea and fever (T 38 °C) for a few days. Medical

past history was unremarkable. Physical examination revealed crackles to left lung base. Routine blood tests showed a CRP value increase (16 mg/dl) with a normal white blood cell count. Chest X ray was negative. Bedside lung ultrasound showed a diffuse and confluent B lines pattern (white lung) and the presence of multiple small areas of consolidations at the subpleural level. A rapid US assessment of the cardiac function showed findings within normal limits. It was then performed a chest CT scan which confirmed the suspected diagnosis of interstitial pneumonia.

**Discussion and Conclusions:** Interstitial pneumonia can pose diagnostic difficulties due to the low specificity of symptoms and the frequent lack of alterations on Chest X Ray. In our case LUS showed a diffuse B lines pattern with subpleural multiple focal thickening which although not pathognomonic is highly suggestive for the diagnosis of interstitial pneumonia.

### You cannot lie in front of the ultrasound probe! Abdominal ultrasound can reveal substance abuse. A case of unknown origin leukocytosis...

C. Sgarlata<sup>1</sup>, S. Bagnoli<sup>1</sup>, M. Rollone<sup>2</sup>, L. Magnani<sup>3</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona di Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** A careful medical history is the best method to obtain useful diagnostic information especially in patients with nonspecific clinical signs however patients may voluntarily omit important information. Substance abuse is one of the most unspoken conditions. Cocaine showed to induce splenic constriction and altered hematologic parameters (e.g. leukocytosis) and it can also cause spleen micro infarcts often seen at the ultrasound examination as small areas of calcification. We describe a case of leukocytosis of unknown origin in which the US examination oriented the diagnosis.

**Case report:** A 38 years old man come to our attention complaining persistent neutrophilic leukocytosis of unknown origin despite it had been already thoroughly investigated at another hospital. Past medical history was unremarkable and he denied taking medication or substance abuse. Blood tests were normal except for the presence of moderate neutrophilic leukocytosis. An abdominal US resulted normal except for the finding of multiple splenic calcifications which was communicated to the patient who then revealed cocaine abuse. A total body CT scan showed normal findings. WBC spontaneously reduced during hospitalization strengthening the suspicion of a reactive leukocytosis.

**Discussion and Conclusions:** Reactive leukocytosis to substance abuse is a well-known and not uncommon condition but it always poses problems of differential diagnosis remaining a diagnosis of exclusion. In our case US examination allowed to direct the clinical suspicion towards a condition initially denied by the patient.

### The clinical utility of lung ultrasound in uncooperative or bedridden patients with suspected pneumonia: a multicenter experience

C. Sgarlata<sup>1</sup>, M. Rollone<sup>2</sup>, F. Guerriero<sup>3</sup>, S. Bagnoli<sup>1</sup>, L. Magnani<sup>4</sup>

<sup>1</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale S. Martino di Mede, Mede (PV); <sup>2</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>3</sup>Azienda di Servizi alla Persona of Pavia, Istituto di Cura Santa Margherita, Pavia; <sup>4</sup>Azienda Socio-Sanitaria Territoriale di Pavia, U.O.C Medicina Interna, Ospedale Civile di Voghera, Voghera (PV), Italy

**Introduction:** Advanced age, bedridden and lack of cooperation are common between patients admitted to internal medicine wards reducing the diagnostic accuracy of the conventional imaging technique. Lung ultrasound (LUS) showed to be effective in the diagnosis of several pulmonary diseases in previous studies mainly carried out in ICU units. The purpose of this research was to confirm the utility of bedside LUS in the diagnosis of pneumonia in the medical non ICU uncooperative or bedridden patient.

**Materials and Methods:** We enrolled 64 patients admitted to the internal medicine ward of the "S. Martino Hospital" of Mede (PV) and to a geriatric ward of the "Institute S. Margherita" of Pavia which had a clinical suspected pneumonia and which presented also psychomotor agitation (evaluated using the Richmond Agitation Sedation Scale) or bedridden.

**Results:** LUS was carried out in all the 64 patients. 56 patients were subjected also to chest X ray (24 of this required sedation due to psychomotor agitation). In 8 patients was not possible to carry out a diagnostic chest X ray due to severe psychomotor agitation despite pharmacologic sedation. In 53 of the patients we found ultrasound signs of pneumonia. In patients undergoing both chest X-ray and lung US this latter technique showed to have at least the same efficacy in diagnosing pneumonia.

**Conclusions:** Our double-center study confirms the effectiveness of lung US as a powerful tool to achieve the diagnosis of pneumonia in patients for whom the use of traditional imaging techniques is less reliable or can't be carried out.

### Long-term effectiveness of liraglutide for treatment of type 2 diabetes in a real life setting: a 24-month non-interventional, retrospective, multicentre study in Italy

N. Simioni<sup>1</sup>, C.C. Berra<sup>2</sup>, M. Boemi<sup>3</sup>, A.C. Bossi<sup>4</sup>, R. Candido<sup>5</sup>, G. Di Cianni<sup>6</sup>, S. Frontoni<sup>7</sup>, S. Genovese<sup>8</sup>, P. Ponzani<sup>9</sup>, V. Provenzano<sup>10</sup>, G. Russo<sup>11</sup>, L. Sciangula<sup>12</sup>, A. Lapolla<sup>13</sup>, C. Bette<sup>14</sup>, A. Nicolucci<sup>15</sup>

<sup>1</sup>Presidio Ospedaliero di Cittadella (PD); <sup>2</sup>Istituto Clinico Humanitas (MI); <sup>3</sup>Ospedale INRCA (AN); <sup>4</sup>Ospedale Treviglio Caravaggio; <sup>5</sup>ASS 1 Triestina (TS); <sup>6</sup>Ospedale di Livorno; <sup>7</sup>Ospedale S.an Giovanni Calibita Fatebenefratelli (RM); <sup>8</sup>Ospedale Multimedita (MI); <sup>9</sup>Ospedale La Colletta Arenzano (GE); <sup>10</sup>Ospedale Civile di Partinico, Partinico (PA); <sup>11</sup>Policlinico G. Martino (ME); <sup>12</sup>Ospedale Felice Villa, Mariano Comense (CO); <sup>13</sup>Università di Padova; <sup>14</sup>Novo Nordisk (RM); <sup>15</sup>COREsearch, Italy

**Scope:** To evaluate the long-term effectiveness of liraglutide (LIRA) when used in real life clinical setting in Italy.

**Methods:** The population consisted in all consecutive patients with Type 2 Diabetes Mellitus (T2DM) aged  $\geq 18$  y., initiating LIRA in 2011. Data were collected for 24-months following LIRA initiation. HbA<sub>1c</sub>, weight, reduction of at least 1.0% in HbA<sub>1c</sub>, achievement of HbA<sub>1c</sub>  $\leq 7\%$ , reduction of at least 3% in body weight, reduction of at least 1.0% in HbA<sub>1c</sub> and at least 3% in body weight were analysed.

**Results:** Data on 1,723 patients collected (mean age 58.9 $\pm$ 9.5 years; 54.9% men; diabetes duration 9.6 $\pm$ 7.1 y., HbA<sub>1c</sub> 8.3 $\pm$ 1.4%, weight 99.6 $\pm$ 18.9 kg). Discontinuation rate at 24 months was 21.5%. The estimated proportion of patients achieving HbA<sub>1c</sub> reduction  $\geq 1\%$  after 12 months was 43.5% (95% [CI] 40.9; 46.2). After 2 years, HbA<sub>1c</sub> was reduced by -0.78% (-0.84; -0.72;  $p < 0.0001$ ), body weight by -3.4 kg (-3.6; -3.1;  $p < 0.0001$ ), systolic blood pressure by -3.93 mmHg (-5.07; -2.80;  $p < 0.0001$ ). At 24 months, an HbA<sub>1c</sub> reduction of at least 1.0% was achieved by 41.5% (95% CI 38.7; 44.4) of patients while 40.9% (95% CI 38.1; 43.7) achieved HbA<sub>1c</sub>  $\leq 7.0\%$ . A body weight reduction of at least 3% was achieved by 54.0% (95% CI 51.1; 56.9) of patients and 25.5% (95% CI 23.0; 28.2) achieved an HbA<sub>1c</sub> reduction of  $\geq 1\%$  and a body weight reduction of  $\geq 3\%$  at 24 months.

**Conclusions:** These findings underline that the beneficial results documented in the LIRA clinical development programme can be reproduced when LIRA is used in T2DM patients in a real world setting in Italy.

### Achieving FPG target without hypoglycemia: a meta-analysis of insulin degludec versus insulin glargine

N. Simioni<sup>1</sup>, L. Meneghini<sup>2</sup>, S. Atkin<sup>3</sup>, C. Mathieu<sup>4</sup>, A. Philis-Tsimikas<sup>5</sup>, L. Bardtrum<sup>6</sup>, D. Tutkunkardas<sup>6</sup>, B. Zinman<sup>7</sup>

<sup>1</sup>Medicina Interna, ULSS 15 Alta Padovana, Cittadella (PD), Italy; <sup>2</sup>University of Texas Southwestern Medical Center and Parkland Health & Hospital System, Dallas, TX, USA; <sup>3</sup>Weill Cornell Medicine in Qatar, Doha, Qatar; <sup>4</sup>UZ Leuven, Leuven, Belgium; <sup>5</sup>Scripps Whittier Diabetes Institute, San Diego, CA, USA; <sup>6</sup>Novo Nordisk A/S, Søborg, Denmark; <sup>7</sup>Mount Sinai Hospital, University of Toronto, Toronto, ON, Canada

Insulin degludec (IDeg) is a basal insulin with a long and stable



glucose-lowering effect and low day to-day intra-patient variability compared with insulin glargine (IGlar). This meta-analysis investigated the proportion of patients meeting the laboratory-measured FPG target of <130 mg/dL (7.2 mmol/L), defined as the upper limit of the recommended premeal PG goal based on the 2015 ADA Standards of Medical Care in Diabetes, at each visit during the maintenance period, as well as doing so without experiencing nocturnal hypoglycemia. The maintenance period is defined as all visits from week 16 onwards. Nocturnal hypoglycemia was defined as any confirmed (BG <56 mg/dL [3.1 mmol/L]) self-monitored event occurring between 00:01 and 05:59, inclusive. Patients (T1D or T2D) from seven open-label, randomized, treat-to-target trials treated with either IDeg (n=2501) or IGlar (n=1256) were included. Use of IDeg resulted in significantly more patients reaching the FPG target at each visit throughout the maintenance period, as well as doing so without experiencing nocturnal confirmed hypoglycemia, compared with IGlar. These results were similar across the three patient populations; T1D, T2D previously insulin treated and T2D insulin naïve. In conclusion, more patients treated with IDeg can achieve target FPG without nocturnal confirmed hypoglycemia compared with IGlar.

### Sepsis in elderly in Internal Medicine

A. Soddu<sup>1</sup>, S. Piras<sup>1</sup>

<sup>1</sup>Medicina Interna, Alghero ATS, Sassari, Italy

**Introduction:** Sepsis represents one of the principal causes of death, the raise in its incidence, is related to the raise of the age in the general population itself. Even though mortality and morbidity are still high, the eldest are the ones who nowadays still remain less studied. With our study we wanted to compare the clinical features of inpatients older than 65 years, affected by sepsis in the Internal Medicine Unit of Alghero Hospital.

**Materials and Methods:** In this retrospective study we enrolled only patients older than 65 years, admitted consecutively from the ER since 1<sup>st</sup> of January until 30<sup>th</sup> of June 2016 and we divided them into 3 age groups. The clinical data have been collected from the medical records.

**Results:** We totally enrolled 59 patients (28 males and 31 females). Within them 22 were older than 86 years. 25/59 deceased in total, 13 of them were older than 86. 21/59 had at least 4 comorbidities; 18/59 had had neoplastic disease. 3/59 lived in community, 52/59 lived with their family. Positive blood cultures were found in 24/59 patients. E. coli have been the most frequent among isolated germs.

**Conclusions:** Sepsis in population over 85 years old, it's being increasing. New professional skills and a new sensibility towards this category of patients and type of disease among doctors of Internal Medicine are required.

### Atypical presentation of non-Hodgkin lymphoma

F. Soderino<sup>1</sup>, S. Ziyada<sup>2</sup>, N. Cosentino<sup>1</sup>, A. Santoro<sup>2</sup>, F. Lorenzi<sup>2</sup>, G. Coccia<sup>2</sup>, A. Spina<sup>2</sup>, M.C. Zaccaria<sup>2</sup>, R. Schirripa<sup>3</sup>, A. Fierro<sup>2</sup>

<sup>1</sup>Family Physician ASL Roma 2, Rome; <sup>2</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome; <sup>3</sup>Emergency Department Sandro Pertini Hospital, Rome, Italy

**Introduction:** Marginal zone lymphomas account for about 5% to 10% of lymphomas. There are main types of marginal zone lymphomas. Splenic Marginal Zone B-cell Lymphoma (SMZLs), Nodal Marginal Zone B-cell Lymphoma (NMZLs) and Extranodal Marginal Zone B-cell Lymphomas, also known MALT lymphomas.

**Case report:** A 65-year-old woman was admitted to our department with weakness and dark urine. Laboratory tests revealed anemia, urinalysis was positive for blood, increased LDH, positive direct Coombs test, indirect bilirubin, decrease haptoglobin and hemoglobinuria. Blood studies confirm hemolytic anemia. A CT scan of abdomen showed enlarged lymph nodes in the abdomen and splenomegaly. Biopsy was performed and showed NMZL.

**Discussion:** The NMZLs presentation is, non-bulky peripheral lymphadenopathy (98%) especially head and neck area (80%); intra-abdominal lymphadenopathy (49%); bone marrow involvement

(55%); B symptoms: 13%. In our patient the first symptom was only false macroscopic hematuria. Laboratory tests have shown the presence of hemoglobinuria due to autoimmune hemolytic anemia. Acute AIHA is relatively rare, with an incidence of 1-3/100,000 population per year. The prevalence of AIHA has been reported to range from 0.23% to 6.2% in patients with NHL, it occurs most frequently in CLL. In our patient, AIHA was apparent for months before the diagnosis of NMZL. So we can define this case, an atypical presentation of lymphoma. The patient was treated with rituximab and chlorambucil with improvement of clinical symptoms and laboratory parameters.

### Systemic infection from *Mycobacterium bovis* several years after intravesical adjuvant treatment for urothelial cancer of the bladder

F. Sottotetti<sup>1</sup>, E. Quaquarelli<sup>1</sup>, V. Nieswandt<sup>2</sup>, C. Teragni<sup>1</sup>, M. Frascaroli<sup>1</sup>, A. Bernardo<sup>1</sup>

<sup>1</sup>Unità Operativa di Oncologia Medica, ICS Maugeri, IRCCS, Pavia; <sup>2</sup>Unità Operativa di Medicina Interna, Ospedale Civile di Voghera, ASST Pavia, Italy

A 54 years old man presented for symptoms, lasting 2 months, comprising fever (max 38°C), weight loss, nocturnal sweating and inguinal lymph node enlargement. In 2013, he had undergone a radical cystectomy with orthotopic ileal neobladder reconstruction for urothelial cancer of the bladder (pT2N0M0). The US examination confirmed the presence of the enlarged lymph nodes, with inflammatory vascularization. No major abnormalities were found at blood analysis, apart from a slightly increased WBC count with relative lymphocytosis. According to the hypothesis of a proliferative disorder, a 18F-FDG PET/TC scan was performed, which showed pathologic uptake at lymph nodes on both sides of diaphragm and rectum. According to the findings, an inguinal lymph node biopsy was made; the histological exam described the presence of granulomas. We focused on the exposition, occurred in 2012, to *mycobacterium bovis* (TICE strain) during intravesical instillation with adjuvant intent following endoscopic resection of non muscle-infiltrating urothelial cancer. In Literature it's described the possibility of the systemic spread of the pathogen also many years following primary treatment. The Ziehl Nielsen test and culture of feces and urine confirmed the presence of *m. bovis*. Accordingly, the patient was treated with rifampicine and azithromycin with complete recovery. It's necessary to consider the possibility of systemic spread of *m. bovis* also many years following intravesical adjuvant treatment; notably, the development of mycobacterial proctitis is reported in this patient group.

### Risk management of oncologic drugs: our experience

I. Spagnoletti<sup>1</sup>, A. Spagnuolo<sup>1</sup>, A. Tomaselli<sup>2</sup>, B. Vetere<sup>1</sup>, M. Gnerre<sup>1</sup>, L. De Maria<sup>1</sup>, A. Febbraro<sup>1</sup>

<sup>1</sup>U.O. Oncologia, Ospedale Sacro Cuore di Gesù Fatebenefratelli, Benevento; <sup>2</sup>Direzione Sanitaria Ospedale Sacro Cuore di Gesù Fatebenefratelli, Benevento, Italy

**Background:** Recommendation 14, issued by the Italian Ministry of Health, is aimed at providing requirements for preventing medication errors with antineoplastic drugs. This recommendation covers all step of the process, from supply to administration of therapies with guidance on tools and methods to be adopted for the assessment and management of clinical risk. We analyzing the compliance to the recommendation of our Institution.

**Methods:** Healthcare professional (Physician, nurse and pharmacists) participated in a self assessment survey to evaluate adherence to Recommendation 14.

**Results:** The self assessment results showed a general acknowledgement of the management of anticancer agents. The responsibility of the pharmacist from regulatory criteria is a critical point. The nurses play a fundamental role in education and supporting patient. The physicians are attentive to scientific and clinical criteria in prescribing and monitoring therapies. It is necessary implementing of a computerized management from prescribing to drug administration and follow up.

**Conclusions:** We have analyzed specific gaps with Recommendation 14. The healthcare professionals involved are able to improvement action to minimize risk in the management of oncologic drugs.

### Assunzione di calcio e vitamina D per prevenire o ridurre l'incidenza di osteopenia in pazienti in trattamento adiuvante con inibitori delle aromatasi per carcinoma mammario

I. Spagnoletti<sup>1</sup>, A. Spagnuolo<sup>1</sup>, C. Corbo<sup>1</sup>, A. Campagna<sup>1</sup>, A. Febbraro

<sup>1</sup>U.O. Oncologia, Ospedale Sacro Cuore di Gesù Fatebenefratelli, Benevento, Italy

**Premesse:** La terapia con inibitori delle aromatasi (AI) nel carcinoma mammario, riduce gli estrogeni accelerando il processo di distruzione dell'osso, aumentando il rischio di frattura. Si stima che gli AI provocano in età avanzata una perdita del 3% della massa scheletrica ogni anno, mentre nelle più giovani, cui viene indotta la menopausa mediante soppressione ovarica, è persa il 7% di massa ossea nello stesso tempo. Inoltre, l'incidenza di fratture vertebrali e non vertebrali sembra persistere a lungo anche dopo la sospensione della terapia ormonale. L'AIOM ha aggiornato le Linee Guida raccomandando di iniziare una terapia per la fragilità ossea con l'inizio del trattamento con AI. Per prevenire eventi scheletrici è fondamentale assicurare un apporto giornaliero di Calcio e vitamina D adeguato all'età. L'obiettivo dello studio era verificare l'efficacia di Calcio e vitamina D nel prevenire alterazioni ossee nelle pazienti in terapia con AI.

**Materiali e Metodi:** 50 donne con carcinoma mammario in trattamento con AI, hanno assunto Calcio e Vitamina D per tutto il periodo della terapia. La valutazione della qualità ossea è stata effettuata al basale e ogni 6 mesi mediante MOC calcaneare.

**Risultati:** Il 10% delle pazienti presentava osteopenia al basale. Abbiamo registrato il 20% di osteopenia e il 5% di osteoporosi, mentre il 75% non mostrava variazione della densità minerale ossea. Non sono stati riportati eventi scheletrici maggiori.

**Conclusioni:** I dati confermano l'importanza del supplemento di Calcio e vitamina D nel prevenire eventi scheletrici in donne in terapia con AI.

### L'organizzazione per intensità di cura in Medicina Interna: il peso organizzativo dei trasferimenti tra aree di degenza

W. Spagnoli<sup>1</sup>, D. Peterlana<sup>1</sup>, S. Dorighi<sup>1</sup>, S. Cozzio<sup>1</sup>, C. Contù<sup>1</sup>, S. Toccoli<sup>1</sup>, G. Gasperi<sup>1</sup>, A. Nardelli<sup>1</sup>, E. Torri<sup>2</sup>, M. Rigoni<sup>2</sup>, G. Nollo<sup>2</sup>

<sup>1</sup>UO di Medicina Interna, Ospedale di Trento, APSS del Trentino;

<sup>2</sup>Innovazione e Ricerca Clinica in Sanità, Fondazione Bruno Kessler, Provincia Autonoma di Trento, Italy

**Premesse e Scopo dello studio:** L'organizzazione in medicina interna per intensità di cura (IC) è in grado di migliorare gli esiti clinici, aggravamento e mortalità precoce. Il cardine della organizzazione è l'allocatione del paziente nel setting adeguato alla gravità clinica e presuppone che i pazienti possano essere trasferiti tra aree a diversa IC. Scopo del lavoro è quello di valutare sul campo il numero e le modalità dei trasferimenti.

**Metodi:** Sono stati analizzati i ricoveri della Medicina Interna dell'Ospedale di Trento dal 2014 al 2016, reparto organizzato per IC in tre aree: Alta (AI), Media (MI) per ricovero acuti e Bassa (BI) per post acuti. Le dinamiche di trasferimento tra aree sono state studiate in base al numero dei ricoveri ed al numero e alle fasce orarie dei trasferimenti.

**Risultati:** Sono stati valutati 5.032 ricoveri, 1169 (23%) in AI e 3.863 (77%) in MI. Durante la degenza il 45% (2.284) dei pazienti è stato trasferito: il 7% (362) da AI a MI dopo stabilizzazione clinica, il 4% (225) da MI a AI per aggravamento ed il 34% (1.697) da AI o MI a BI nel post acuto. L'82% (1877) dei trasferimenti è stato programmato ed effettuato entro le ore 15.00, 12% (268) entro le 21.00 e 6% (139) durante la notte.

**Conclusioni:** Il modello per IC per funzionare non può prescindere dal trasferimento dei pazienti tra aree per rendere disponibili posti letto con setting appropriati. Il 45% dei pazienti risulta trasferito tra aree: l'82% programmato e il 18% per necessità. Questi dati rilevano un significativo carico organizzativo e la necessità di meccanismi certi di continuità di cura.

### L'utilità di un'area ad alta intensità di cure nel dipartimento di Medicina Interna dell'APSS di Trento

W. Spagnoli<sup>1</sup>, S. Cozzio<sup>2</sup>, E. Vettorato<sup>2</sup>, S. Dorighi<sup>1</sup>, D. Peterlana<sup>1</sup>, F. Pugliese<sup>2</sup>, R. Falzone<sup>2</sup>, C. Contù<sup>1</sup>

<sup>1</sup>APSS Trento, UO Medicina Interna, Ospedale Santa Chiara, Trento;

<sup>2</sup>APSS Trento, UO Medicina Interna, Ospedale Santa Maria del Carmine, Rovereto (TN), Italy

Per garantire eguale assistenza al paziente internistico acuto instabile, dal 2014 nei due ospedali *Hub* del Trentino sono attive aree di degenza ad Alta Intensità di Cura (AI) adibite ad accogliere i pazienti a rischio di instabilizzazione clinica anche dalle 5 strutture *Spoke* situate in zone geograficamente svantaggiate. Scopo dello studio è dimostrare l'utilità di aree ad Alta Intensità di Cura in un modello dipartimentale provinciale *Hub&Spoke*.

**Materiali e Metodi:** Gli Ospedali del Trentino sono dotati di 273 posti letto di Medicina Interna, di questi 20 di AI negli Ospedali *Hub*. Abbiamo confrontato i ricoveri nelle UO di Medicina Interna di Trento e Rovereto del 2013, degenza senza AI, con i ricoveri effettuati nel 2016, degenza con AI. I parametri valutati sono stati: il numero di pazienti instabili trasferiti da strutture *Spoke*, il numero di pazienti trasferiti in terapia intensiva (UTI) per aggravamento e dall'UTI in fase di step-down.

**Risultati:** Nel 2013 sono stati trasferiti dalle strutture *Spoke* 64 pazienti (2,4% dei ricoveri), contro i 175 (6%) del 2016, i trasferimenti per aggravamento in UTI si sono ridotti da 72 (2,8%) nel 2013 a 44 (1,5%) nel 2016 ed i trasferimenti da UTI in fase di step-down sono aumentati da 113 nel 2013 a 137 nel 2016.

**Conclusioni:** La presenza di aree di degenza con AI in Medicina Interna ha migliorato l'assistenza al paziente instabile supportando le necessità delle strutture *Spoke* ed ha migliorato la disponibilità di posti letto in UTI sia con una riduzione dei trasferimenti per aggravamento sia con un aumento dei trasferimenti in step-down.

### Aree ad alta intensità di cura in ambito internistico: aspetti clinico-assistenziali

W. Spagnoli<sup>1</sup>, S. Cozzio<sup>2</sup>, S. Dorighi<sup>1</sup>, E. Vettorato<sup>2</sup>, D. Peterlana<sup>1</sup>, F. Pugliese<sup>2</sup>, R. Falzone<sup>2</sup>, S. Toccoli<sup>1</sup>, I. Nannini<sup>2</sup>

<sup>1</sup>APSS Trento, UO Medicina Interna, Ospedale Santa Chiara, Trento;

<sup>2</sup>APSS Trento, UO Medicina Interna, Ospedale Santa Maria del Carmine, Rovereto (TN), Italy

Per migliorare la gestione del malato internistico critico dal 2014 sono attive in Trentino aree ad Alta Intensità di Cura (AI) caratterizzate rispetto alla degenza ordinaria da maggior presenza medico infermieristica, dalla possibilità di effettuare monitoraggio multiparametrico centralizzato, ventilazione non invasiva (NIV) ed ecografia bedside.

**Scopo:** Illustrare l'attività clinico assistenziale nella gestione del malato critico nelle aree AI.

**Materiali e Metodi:** Sono stati analizzati i ricoveri del 2016 nelle AI della Medicina Interna di Trento e Rovereto (20 posti letto). Variabili studiate: mortalità in AI, trasferimenti in Terapia Intensiva (UTI), principali diagnosi, utilizzo di NIV e amine, numero procedure interventistiche cardiologiche.

**Risultati:** Su 1133 ricoveri 57,6% proveniva da Pronto Soccorso, 9,5% da UTI (step-down), il rimanente da altre sezioni/UO. 5,2% (59) dei pazienti è deceduto in AI e 3,3% (38) è stato trasferito in UTI per aggravamento. Principali diagnosi: cardiologiche (41,4%), respiratorie (19,8%) e settiche (12,8%). Il 18,3% (207) dei casi è stato sottoposto a NIV, di cui 9,2% (19) con successiva necessità di trasferimento in UTI. Nel 5,3% (60) dei casi sono state utilizzate amine; nel 6,7% (76) sono state eseguite procedure interventistiche cardiologiche.

**Conclusioni:** Il team medico-infermieristico dedicato all'AI necessità di competenze clinico assistenziali in precedenza prerogativa dei reparti intensivistici. L'utilizzo routinario di tecniche NIV, ecografiche e di amine presuppone formazione e addestramento specifici (internista intensivista).

### Sembrava una banale polmonite

A. Sponchiado<sup>1</sup>, M. Leoni<sup>2</sup>, M. Rattazzi<sup>3</sup>, P. Pauletto<sup>3</sup>

<sup>1</sup>Dipartimento di Medicina Interna, Medicina Interna I, Ospedale Cà Foncello, Treviso; <sup>2</sup>Dipartimento di Medicina Interna, Medicina Interna I, Ospedale Ca' Foncello, Treviso; <sup>3</sup>Università degli Studi di Padova, Italy

**Presentazione del caso:** Donna di 79 anni senza precedenti di rilievo si presentava alla nostra attenzione per astenia, febbre e tosse. Alla radiografia del torace evidenza di versamento pleurico sinistro. Agli esami ematochimici presenza di leucocitosi, insufficienza renale acuta, aumento degli indici di flogosi. Veniva avviata terapia antibiotica con scarso beneficio sulla febbre e la tosse. Tutte le indagini microbiologiche risultavano negative. Contestualmente si assisteva a progressivo peggioramento della funzionalità renale, incremento dei valori di pressione arteriosa e comparsa di edemi alle cosce e al tronco. All'esame urine era presente microematuria con lieve proteinuria. Per la persistenza di febricola e tosse stizzosa la paziente veniva sottoposta a HRCT che mostrava la presenza di un addensamento polmonare destro a pattern reticolare. Nel frattempo ci veniva confermata la positività degli ANCA anti-MPO ad alto titolo. Nel sospetto di vasculite sistemica veniva eseguita biopsia renale che mostrava un quadro di glomerulonefrite extracapillare pauci-immune, compatibile con il sospetto di poliangeite microscopica. Con l'avvio di terapia steroidea ad alto dosaggio si è assistito a progressivo miglioramento clinico e degli indici di funzionalità renale, che alla dimissione risultavano quasi normalizzati. **Conclusioni:** Le vasculiti rappresentano una patologia seria e a volte fatale che richiede una pronta diagnosi e l'avvio di opportuna terapia.

#### Person-centered analysis in physician-patient relationship

I. Stefani<sup>1</sup>, O. Teti<sup>1</sup>, S. Fasolo<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>Internal Medicine, ASST Ovest Milanese, Legnano (MI), Italy

Technical and organizational developments in the field of internal medicine have profoundly altered physician-patient relationship. According to recent estimates physicians spend more than 50% of their time using computer or analyzing digital clinical documents. Time devoted to classical clinical examination is replaced by physician staff briefings. Although the favorable implications of new technologies applied to the care of the patient, particularly those oriented to risk management, are undeniable, reduced time availability for physician-patient-family relationship recall that has been defined "technological dehumanization" in literature. This aspect has significant implications on the relational level, often leading to litigation, otherwise remediable on the basis of effective communication. A tool for the reduction of clinical risk proposed in pediatric setting (where relationships mediated by parents are indispensable in the course of treatment) is the "daily safety reporting tool" (Lachman) designed as a simple joint diary for both the care giver and the patient, reporting concerns related to the daily practices, with particular reference to possible risks. A development of this methodology in the field of Internal Medicine may be represented by a multiple sections diary, for physician, nurse, patient and the family reports. This instrument, in order improve an increasingly time-deficient care relationship would not only focus on the problems experienced by the patient and family in care, but, valuing the feed-back, implement a continuous improvement process in clinical risk reduction.

#### Metastatic pulmonary heteroplasia in a smoker patient. Urinary sepsis caused by *Escherichia coli*

E. Stellitano<sup>1</sup>, V. Aronne<sup>1</sup>, B. Carej<sup>1</sup>, C. Caserta<sup>1</sup>, A. Fulgido<sup>1</sup>, P. Lipari<sup>1</sup>, G. Meduri<sup>1</sup>, A. Scordo<sup>1</sup>, I. Tarzia<sup>1</sup>, A. Stellitano<sup>2</sup>

<sup>1</sup>U.O.C. Medicina Interna, P.O. Melito Porto Salvo (RC), ASP Reggio Calabria; <sup>2</sup>U.O.C. Geriatria, P.O. Ospedale S. Anna, San Fermo della Battaglia, ASST Lariana, Como, Italy

T.M. 64 year old male patient. The patient is an emaciated, sallow smoker, short of breath, with dysphonia for a week. Blood pressure: 150/70; heart rate: 100 b.m<sup>-1</sup>. Objective Examination. Chest: bibasilar hypophonesis. E.C.G.: sinus tachycardia, non-specific disorders of ventricular repolarization. EmoGasAnalysis (E.G.A.): hypoxemia. Laboratory tests: hypokalemia, >LDH, ferritin, PCR, slightly increased white blood cells, not anemia. Tumor markers:

slight increase in Ca125. Positive urine culture for *Escherichia coli*. Echography of abdomen: hepatic steatosis. Therapy: antibiotics, steroids, KCL, O<sub>2</sub> therapy, inhibitors of protonic pump. Total body CAT: Bilateral pleural effusion more pronounced on the left, gaseous bubbles are present, as well as a solid and uneven formation in the homolateral hilum with diameter of about 7 cm, multiple enlarged lymph nodes at the middle mediastinum, apneumotosis of lung parenchyma on the lower left lobe, rightward deviation of the trachea. Nodule with spiculated contours at the base of the right upper lobe, probably secondary. Nodular formation to the left adrenal (metastases), liquid in the abdomen in the pelvic cavity, enlarged prostate. Absence of brain injury. On 31/10/2016 voluntary discharge of the patient diagnosed with: metastatic pulmonary left heteroplasia (right lung - adrenal gland - lymph nodes). Bilateral pleural effusion. Hypoxemic respiratory insufficiency. Tabagism. Dysphonia. Urinary infection caused by *E. coli*. Hypokalaemia.

#### A 21-year-old woman with myalgias, erythematous papules and visual blurring

S. Strada<sup>1</sup>, E. Avitabile<sup>1</sup>, R. Bonometti<sup>1</sup>, M. Bellan<sup>2</sup>, A. Gibbin<sup>1</sup>, A. Re<sup>1</sup>, S. Bianco<sup>1</sup>, P.P. Sainaghi<sup>1</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Traslazionale, UPO, Novara;

<sup>2</sup>Azienda Ospedaliera Sant'Andrea, Vercelli, Italy

**Clinical presentation:** A 21-year-old woman presented with myalgia, weakness, erythematous papules on her metacarpophalangeal joints and ulcerative papules on her elbows. She had no comorbidities. Laboratory studies showed mild anaemia (Hb 11.5 g/dL), increased serum aspartate/alanine aminotransferase (AST/ALT=115/84 U/L), high CK levels (755 U/L). Serum C-reactive protein was normal, the search for autoantibodies turned negative and there was no complement consumption. While still completing her initial workup for dermatomyositis, the patient returned early to the rheumatology clinic complaining of visual blurring. Fundus examination revealed multiple cotton wool spots and intra-retinal haemorrhages around the optic disc and macular oedema. Fluorescein angiography showed leakage of dye due to breakdown of the inner blood-retinal barrier and staining of the blood vessel wall with fluorescein, consistent with retinal vasculitis. High-dose (1 mg/kg qd) prednisone treatment was started.

**Outcome:** Myalgias, muscle weakness and skin lesions got better. A repeat ocular fundus examination demonstrated reabsorption of cotton wool spots and macular oedema. Moreover, AST, ALT and CK levels decreased. Steroids were tapered and azathioprine was added as steroid-sparing agent.

**Comment:** Retinal involvement in dermatomyositis, first described by Bruce in 1938, is uncommon. Its course may be severe, with rapid visual deterioration. Immediate evaluation by an ophthalmologist is mandatory on simple suspicion, since persistent and profound visual loss can occur when treatment is unduly delayed. N. Caratteri=1600

#### Tapentadol in cancer pain: an observational study on daily clinical practice

B. Tagliaferri<sup>1</sup>, M. Torchio<sup>2</sup>, D. Dalu<sup>3</sup>, F. Colombo<sup>4</sup>, M. Danova<sup>2</sup>

<sup>1</sup>Oncologia Medica, IRCCS ICS "S. Maugeri", Pavia; <sup>2</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia; <sup>3</sup>U.O.C. Oncologia, ASST Sacco, Milano; <sup>4</sup>U.O.C. Medicina Interna, ASST Grande Ospedale Metropolitano Niguarda, Milano, Italy

**Background:** Pain is a common symptom in cancer patients (pts) characterized by both nociceptive and neuropathic origin. Tapentadol is a  $\mu$ -opioid receptors agonist and a inhibitor of noradrenaline reuptake. We evaluate influence of tapentadol on pain control and quality of life of pts suffering from moderate to severe pain in clinical practice.

**Materials and Methods:** We collected data from advanced cancer adult pts suffering from moderate to severe pain (NRS baseline  $\geq 4$ ). Initial dose of tapentadol PR was 50 or 100 mg BID: in case of ineffectiveness the dosage was gradually increased up to 250 mg BID. All other analgesics, BTP's drugs or cancer therapies were gathered. The observational period was 1 month and 3 visits were

performed. Pain intensity, using pts' self-report on a 11-point NRS from 0 to 10, quality of sleep (4-point scale), number and reason of drop-out were considered. All adverse events were registered and global impressions of the analgesic treatment were recorded (self-government, physical and psychological well-being).

**Results:** 46 cancer pts (50%M/50%F, median age 75 years) suffering from pain with mean pain intensity NRS 6.0 were enrolled. 65% pts had nociceptive and neuropathic component. Tapentadol PR 200 mg/day significantly decreased pain intensity from baseline (NRS -37%,  $p<0.01$ ). Physical and psychological scores and sleep quality improved ( $p<0.01$ ), tolerance was good.

**Conclusions:** Tapentadol PR was effective and well tolerated in the management of moderate to severe cancer pain, even if dose used was lower than data suggest.

### Bilateral thrombosis of the inferior thyroid vein in Hashimoto's thyroiditis

E. Tamborini Permunian<sup>1</sup>, N. Mumoli<sup>2</sup>, L. Callegari<sup>3</sup>, C. Tragni<sup>3</sup>, W. Ageno<sup>1</sup>

<sup>1</sup>Research Center on Thromboembolic Disorders and Antithrombotic Therapies, Department of Clinical and Experimental Medicine, University of Insubria, Varese; <sup>2</sup>Department of Internal Medicine, Ospedale Civile di Livorno, Livorno; <sup>3</sup>Department of Radiology group B, ASST Sette Laghi, Ospedale di Circolo Fond. Macchi, Varese, Italy

**Background:** Venous thrombosis occurring in neck vessels other than the jugular veins is extremely rare and very little information is available on predisposing factors. We here describe a case of inferior thyroid veins bilateral thrombosis in a patient with Hashimoto's thyroiditis.

**Case presentation:** We present the case of a 57 years old woman, affected by Hashimoto's chronic thyroiditis treated with levothyroxine, complaining of sudden onset of stabbing pain on the supraclavicular region, associated with headache, sore throat and jugular constriction. After 5 days, an ultrasonography of the thyroid was performed showing the pattern of a chronic thyroiditis and a bilateral thrombosis of the inferior thyroid veins, later confirmed by CT angiography. CRP and D-dimer were tested and resulted negative. The patient was treated with enoxaparin 100 UI/Kg twice daily for one week and then with enoxaparin 100 UI/Kg daily for 5 weeks. She was also found to be hypothyroid (TSH 5.77 McU/ml) and levothyroxine dosage was then implemented. Neck pain quickly and completely resolved with anticoagulant therapy, which was well tolerated. An ultrasonography was performed 3 months and 9 months after diagnosis and showed complete resolution of veins occlusion. After therapy suspension she underwent thrombophilia screening, which resulted negative.

**Conclusions:** Neck vessels venous thrombosis can include inferior thyroid veins occlusion, which can be possibly related to chronic autoimmune thyroiditis, as described for the first time in this case report.

### Good's syndrome

A. Tamburello<sup>1</sup>, C. Marchesi<sup>1</sup>, P.M.L. Faggioli<sup>1</sup>, M.T. Lavazza<sup>1</sup>, C. Ferrari<sup>1</sup>, A. Mazzone<sup>1</sup>

<sup>1</sup>ASST Ovest Milanese, UOC Medicina, Ospedale di Legnano (MI), Italy

We report the case of a 42 years-old female working as a teacher. For about 10 years she has been suffering from recurrent bronchitis, pneumonia (about 4 episodes/year), cystitis, and herpes labialis. Ten years ago she underwent thymectomy for giant thymoma. In March 2016 the patient presented to the Emergency Department complaining of fever, persistent cough, chest pain, and Herpes labialis. Chest radiography showed left pneumonia, with positive urinary antigen, and blood culture for *Streptococcus pneumoniae*. She was started antibiotic therapy with amoxicillin/clavulanic acid, and azithromycin with gradual deference, and respiratory symptoms resolution. Given the history of thymectomy, recurrent infections, and Herpes labialis, the patient was searched for immunodeficiency causes: IgG, IgA, and IgM were all significantly low (144 mg/dl, 11 mg/dl, 2 mg/dl, respectively), as well as all IgG subclasses (IgG1 1,03 g/L; IgG2 0,62 g/L; IgG3 0,04 g/L; IgG4 0,01 g/L); both blood lymphocyte immunophenotype, and bone marrow aspirate showed complete

absence of B lymphocytes (CD19 0%). In light of 1) Thymoma; 2) deficit B lymphocytes; 3) hypogammaglobulinaemia; 4) recurrent infections the patient was diagnosed to have Good's Syndrome. Given the absence of specific treatment, the patient was started prophylactic treatment with immunoglobulin, associated with specific prophylaxis for Herpes (acyclovir 800 mg, alternate days), and *Pneumocystis jiroveci* (sulfamethoxazole/trimethoprim 160/800 mg, alternate days). Since then the patient has never presented any infectious episodes.

### Complicated acute appendicitis in the elderly. A retrospective ultrasound study

C. Tana<sup>1</sup>, M. Tana<sup>2</sup>, G. Iannetti<sup>3</sup>, M. Silingardi<sup>4</sup>, T. Meschi<sup>1</sup>, C. Schiavone<sup>3</sup>

<sup>1</sup>Internal Medicine and Critical Subacute Care Unit, Medicine Geriatric-Rehabilitation Department, University-Hospital of Parma, Emilia Romagna;

<sup>2</sup>Internal Medicine Unit, USL 9 Grosseto, Toscana; <sup>3</sup>Department of Internistic Ultrasound, "G. d'Annunzio" University of Chieti-Pescara;

<sup>4</sup>Internal Medicine Unit, Medical Department, Maggiore Hospital of Bologna, Emilia Romagna, Italy

**Aim of the study:** Acute appendicitis (AA) in the elderly remains a diagnostic challenge. Clinical and laboratory findings are nonspecific, and complications (perforation, abscess, emphysema) often dominate the clinical picture. However, the role of ultrasound (US) in this setting is still unknown. In this study, we aimed at assessing US findings of complicated cases in elderly patients.

**Methods:** We retrospectively evaluated patients with AA who presented in our US Department in the period 2013-2016. Inclusion criteria were age  $\geq 75$  years, imaging (US and CT) and surgical diagnosis of AA. Patients with an alternative diagnosis revealed at surgery were excluded.

**Results:** 780 cases of AA were screened. 15 (1.9%) patients aged  $\geq 75$  years old with AA were found. Mean age was  $82.6 \pm 4.16$ . Diagnostic criteria for AA were non-compressible and enlarged bowel loop, loss of stratification and presence of appendicolith. 6/15 patients presented with complications: 3/15 with irregular dilatation of a bowel loop with blurred margins and inhomogeneous appearance, compatible with appendiceal abscess, 2/15 with loss of integrity of the appendiceal walls, suggestive of perforation and 1/15 with large amount of gas within walls, diagnostic of emphysema. CT and surgery confirmed the presence of complications in all 6 patients.

**Conclusions:** US is useful to reveal complications in elderly patients presenting with AA. Future studies should assess the diagnostic accuracy of US in comparison to techniques such as CT.

### Spontaneous dissection of the celiac artery in the young: a systematic review of the literature

M. Tana<sup>1</sup>, C. Tana<sup>2</sup>, C. Schiavone<sup>3</sup>, V. Verdiani<sup>4</sup>, C. Palermo<sup>4</sup>, M. Alessandri<sup>4</sup>, A. Montagnani<sup>1</sup>

<sup>1</sup>Internal Medicine Unit, ASL Grosseto, Toscana; <sup>2</sup>Internal Medicine and Critical Subacute Care Unit, Medicine Geriatric-Rehabilitation Department, University-Hospital of Parma, Emilia Romagna; <sup>3</sup>Department of Internistic Ultrasound, G d'Annunzio" University of Chieti; <sup>4</sup>Internal Medicine Unit, USL 7 Siena, Toscana, Italy

**Introduction:** Complete information regarding incidence and etiology of spontaneous isolated celiac artery dissection (siCAD) in the young are still unknown. In this study, we systematically searched information on siCADs from literature databases.

**Methods:** PubMed/Embase and Cochrane were searched using the following terms: Isolated celiac trunk dissection, isolated celiac artery dissection, celiac artery dissection, celiac trunk dissection, spontaneous isolated visceral artery dissection, spontaneous isolated dissection of visceral arteries, isolated celiac artery dissection in the young, isolated celiac trunk dissection in the young. Patients were included if they were younger than 50 years old, if they had a spontaneous etiology and a selective involvement of the celiac artery.

**Results:** 180 studies were found, and 18 remained after screening. Twenty-one patients (male=19, female=2) with siCADs were included. Mean age was  $44.71 \pm 3.61$ . Hypertension was the major

comorbidity. All patients presented with abdominal pain, more often located in the epigastrium (n=11). Almost all patients underwent CT to confirm the diagnosis. A conservative treatment was adopted in 13 patients while an invasive approach was performed in 8 patients (endovascular approach in 7).

**Discussion:** siCADs represent a rare but important cause of vascular dissection in the young. Uncomplicated cases can be safely treated with conservative strategies. The surgical or endovascular repair is indicated when dissections complicate or symptoms persist despite an adequate conservative treatment.

### L'ambulatorio di follow-up per lo scompenso cardiaco: esperienza della U.O.C. di Medicina Interna di Osimo

N. Tarquinio<sup>1</sup>, A. Fioranelli<sup>1</sup>, F. Pellegrini<sup>1</sup>, M. Burattini<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN), Italy

La gestione multidisciplinare/multiprofessionale del paziente con scompenso cardiaco (dalla fase acuta al follow-up e terapia ottimizzata) e delle sue comorbilità è fondamentale per ridurre le riospedalizzazioni e la mortalità; tuttavia nella real-life ciò non sempre accade. Da 2 anni l'U.O. di Medicina Interna di Osimo ha attivato un ambulatorio dedicato gestito dall'internista, che segue i pazienti in post-dimissione anche da altri reparti e PS: 5 posti dedicati a settimana (trattati e seguiti sino ad ora circa 100 pazienti) + 2-3 posti nella stessa seduta per titolazione farmaci. Costa di: 1 infermiere dedicato (prelievi, raccolta anamnesi/assistenza infermieristica, esecuzione ECG) presso l'U.F. Bassa Intensità (ABI) del nosocomio di Osimo, dotata di posto letto diurni (h 7-21) per eventuale terapia infusionale; 1 stanza per ECG, 1 etino+ecografo dotato di sonda cardiologica, convex e lineare, stampante a colori in A4, 1 PC collegato in rete intranet/internet per consultazione referti, esami di lab., cartella clinica elettronica per ogni paziente, aggiornabile ad ogni controllo. Possibilità di eseguire subito esami di lab, Rx torace, spirometria, EGA, 6MWT, infusione diuretici ad alto dosaggio, titolazione farmaci con osservazione clinica e monitoraggio dei parametri. Percorso di "presa in carico" del paziente scompenso (titolazione della terapia farmacologica; rivalutazione ecocardiografica a distanza; gestione sintomi e di eventuale terapie aggiuntive, con accertamenti ulteriori; link con Emodinamica, Clinica di Cardiologia, U.O. Cardiologia Semintensiva, U.O. Cardiologia degli Ospedali Riuniti Ancona).

### Clusters of comorbidities have different impact in short-term prognosis of acute heart failure

N. Tarquinio<sup>1</sup>, L. Falsetti<sup>2</sup>, V. Giovanna<sup>3</sup>, A. Fioranelli<sup>1</sup>, C. William<sup>4</sup>, C. Di Pentima<sup>1</sup>, F. Zoppi<sup>1</sup>, F. Pellegrini<sup>5</sup>, M. Burattini<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN);

<sup>2</sup>U.O.C. Medicina Generale e Subintensiva, Ospedali Riuniti di Ancona;

<sup>3</sup>U.O.C. Neurologia, Ospedali Riuniti di Ancona; <sup>4</sup>U.O. Neurochirurgia, Ospedali Riuniti di Ancona; <sup>5</sup>Libero professionista, Osimo (AN), Italy

**Background:** Comorbidities negatively affect acute heart failure (AHF). We aimed to evaluate if different groups of comorbidities differently affect AHF prognosis in elderly patients.

**Materials and Methods:** We enrolled AHF patients investigating age, sex, in-hospital mortality and presence of 16 common inter-nistic comorbidities. Association of chronic pathologies was explored with Pearson's bivariate test, selecting clusters of  $\geq 2$  significantly associated comorbidities. We obtained ROC curves predicting in-hospital mortality for AHF from binary logistic regressions adopting each cluster as predictor.

**Results:** Mean age was 82.56( $\pm 8,92$ ), females representing 53.7% of the sample. In-hospital mortality was 13%. We obtained 11 different clusters, 6 of which predicting significantly in-hospital mortality. The first (anaemia, dementia, diabetes, AF) had AUC: 0.678; 95% CI: 0.585-0.810;  $p=0.032$ . The second (hypertension, CKD, CVD) had AUC: 0.673; 95% CI: 0.525-0.821;  $p=0.037$ . The third (dyslipidaemia, AF, PAD, CVD, haematologic disorders) had AUC: 0.716; 95% CI: 0.564-0.868;  $p=0.009$ . The fourth (AF, anaemia, dyslipidaemia, diabetes, CVD, IPB) had AUC: 0.764; 95% CI: 0.658-0.870;  $p=0.002$ . The fifth (CVD, OSAS, dyslipidaemia, AF, PAD, rheumatologic diseases) had AUC: 0.687; 95%

CI: 0.557-0.818;  $p=0.024$ . The last (OSAS, AF, IPB) had AUC: 0.695; 95% CI: 0.565-0.825;  $p=0.019$ .

**Discussion:** In this small sample, some clusters of comorbidities were not associated to an increased risk of in-hospital mortality in AHF. Patterns strongly associated to in-hospital death deserve the best attention and the most extensive therapy.

### Polypharmacy at the admission and risk of in-hospital death in elderly patients with acute heart failure

N. Tarquinio<sup>1</sup>, L. Falsetti<sup>2</sup>, A. Fioranelli<sup>1</sup>, G. Viticchi<sup>3</sup>, W. Capecci<sup>4</sup>, F. Zoppi<sup>1</sup>, C. Di Pentima<sup>1</sup>, F. Pellegrini<sup>5</sup>, M. Burattini<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN);

<sup>2</sup>U.O.C. Medicina Generale e Subintensiva, Ospedali Riuniti di Ancona;

<sup>3</sup>Dipartimento Scienze Neurologiche, Ospedali Riuniti di Ancona; <sup>4</sup>U.O. Neurochirurgia, Ospedali Riuniti di Ancona; <sup>5</sup>Libero professionista, Osimo (AN), Italy

**Background:** Polypharmacy and multimorbidity affect the prognosis in several acute pathologies. We aimed to evaluate if polypharmacy at the admission could affect AHF prognosis in a cohort of elderly patients.

**Materials and Methods:** We enrolled AHF patients, investigating age, sex, in-hospital mortality, polypharmacy (defined as the contemporary use of 5 or more medications) and presence of comorbidities. We then prepared a logistic regression containing age, sex and all the comorbidities as predictors and in-hospital mortality as outcome. We then added polypharmacy in a second model. We obtained two ROC curves predicting in-hospital mortality for AHF and compared them.

**Results:** Mean age was 82.56 ( $\pm 8,92$ ), females representing 53.7% of the sample. In-hospital mortality was 13%. The first model, containing 16 comorbidities, age and sex as predictors, showed excellent predictive value (AUC: 0.931; 95% CI: 0.864-0.971;  $p<0.0001$ ). Adding polypharmacy increased significantly the power of prediction (AUC: 0.954; 95% CI: 0.895-0.986;  $p<0.0001$ ), and the difference between curves resulted significant ( $p=0.05$ ).

**Discussion:** In this sample of elderly patients affected by AHF, we observed that age, sex, comorbidities and polypharmacy at the admission account for a large part of the observed in-hospital mortality. The physician should be aware that polypharmacy at the admission carries an additional risk of in-hospital death in elderly patients affected by AHF.

### Prevalence of pulmonary embolism in patients with acute exacerbation of chronic obstructive pulmonary disease: a meta-analysis of the literature

L. Tavecchia<sup>1</sup>, D.M.N. Di Minno<sup>2</sup>, P. Ambrosino<sup>2</sup>, A.M. Grandi<sup>1</sup>, W. Ageno<sup>1</sup>, F. Dentali<sup>1</sup>

<sup>1</sup>Università degli Studi dell'Insubria, Dipartimento di Medicina Clinica e Sperimentale, Medicina Interna II, Varese; <sup>2</sup>Università degli Studi Federico II Napoli, Dipartimento di Scienze Biomediche Avanzate, Napoli, Italy

**Background:** Chronic obstructive pulmonary disease acute exacerbation (COPD-AE) consists in deterioration of respiratory function with increased dyspnea and cough. A high percentage of exacerbations has no known etiology and pulmonary embolism (PE) can worsen respiratory symptoms. Patients with COPD are at risk for thromboembolic events for a variety of factors including immobility, inflammation and comorbidity. However, the real prevalence of PE during exacerbations is still not known.

**Methods:** A systematic review of the literature was performed to determine the reported prevalence of PE in acute exacerbations of COPD in patients who required hospitalization. The literature search was performed using Medline and EMBASE up to September 2016. Only those studies in which the diagnosis of PE was made by CT or pulmonary scintigraphy were selected; PE prevalence in each study was extracted. The VTE weighted mean prevalence (WMP) of PE and the corresponding 95% confidence interval (95%CI) was calculated using of the random effect model.

**Results:** Of the 1520 articles identified, 17 met the inclusion criteria (for a total 3825 patients). PE prevalence in each study was highly variable ranging from 0.3% to 37.8%. The WMP was 15.0% (95% CI 11.2, 19.9).

**Conclusions:** Results of our large meta-analysis suggest that PE diagnosis should be considered in patients with exacerbation of unknown etiology to refer the patient to an appropriate diagnostic and therapeutic path. However, PE prevalence appeared highly variables in different studies suggesting caution in interpretation of our results.

### Risk factors for 3-month mortality after discharge in a cohort of hospitalized elderly patients: results from the REPOSI study

M.M. Tiraboschi<sup>1</sup>, L. Pasina<sup>2</sup>, D. Cumetti<sup>1</sup>, S. Ghidoni<sup>1</sup>, A. Assolari<sup>1</sup>, L. Cortesi<sup>2</sup>, M. Tettamanti<sup>2</sup>, A. Nobili<sup>2</sup>, P.M. Mannucci<sup>3</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>ASST Papa Giovanni XXIII, Bergamo; <sup>2</sup>IRCCS Istituto di Ricerche Farmacologiche "Mario Negri", Milan; <sup>3</sup>A. Bianchi Bonomi Hemophilia and Thrombosis Center, IRCCS Ca' Granda, Maggiore Hospital Foundation and University of Milan, Italy

**Background and Objectives:** Short-term prognosis has important implications in planning the overall management of non-oncological patients to avoid futile practices. The aims of the study were: 1) to investigate the risk of 3-months mortality after discharge from internal medicine and geriatric wards of non-oncological patients with at least 1 of the following conditions: bedridden condition; severely reduced kidney function; hypoalbuminemia; hospital admissions in the previous 6 months; severe dementia; 2) to establish the absolute risk difference of 3-months mortality of bedridden compared to non-bedridden patients.

**Methods:** This cross-sectional study was held in 102 Italian hospitals. The following parameters were recorded: estimated GFR  $\leq 29$  ml/min/1.73 m<sup>2</sup>; severe dementia; albuminemia  $< 2.5$  g/dL; hospital admissions in the 6 months before the index admission.

**Results:** 2,058 patients were included; bedridden patients were 112 and the absolute risk difference of mortality at 3 months was 0.13 (CI 95% 0.08-0.19,  $p < 0.0001$ ). Bedridden condition (OR 2.10, CI 95% 1.12-3.94), severely reduced kidney function (OR 2.27, CI 95% 1.22-4.21), hospital admissions in the previous 6 months (OR 1.96, CI 95% 1.22-3.14), severe dementia (OR 4.16, CI 95% 2.39-7.25) and hypoalbuminemia (OR 2.47, CI 95% 1.12-5.44) were significantly associated with higher risk of 3-month mortality.

**Conclusions:** Bedridden condition, severely reduced kidney function, recent hospital admissions, severe dementia and hypoalbuminemia were associated to higher risk of 3-months mortality in non-oncological patients.

### Difficult discharge: Blaylock Risk Assessment Screen Score index as tool to identify it early

F. Tiratterra<sup>1</sup>, T. Milioto<sup>2</sup>, C. Villani<sup>1</sup>, B. Giampietro<sup>1</sup>, A. Zoppegno<sup>2</sup>, U. Recine<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale S. Spirito, ASL Roma 1; <sup>2</sup>UOC Assistenza infermieristica, ASL Roma 1, Italy

**Introduction:** The current epidemiologic characteristics of patients hospitalized in Internal Medicine departments have led to a significant increase of the "difficult discharge". The discharge is defined difficult when a patient can not be discharged for non-medical reasons. It is important to promptly identify patients at risk for difficult discharge in order to ensure a short hospitalization. Aim of the study: to assess the usefulness of BRASS Index in identifying patients at risk for difficult discharge and/or prolonged stay.

**Materials and Methods:** Patients consecutively admitted to an Internal Medicine ward between April 1st and December 31st 2016 were recruited. Exclusion criteria: death. For each patient the following data were collected: age, gender, length of stay. Each patient was screened using the BRASS on admission.

**Results:** 482 patients were studied, 250 female, 232 male. Mean age: 76 years old. Mean length of stay: 10 days. According to BRASS Index, patients were divided into three groups: low-risk, medium-risk, high-risk. The low-risk patients were 144, mean hospitalization length was 12 days. The patients at medium-risk were 121, mean stay 10 days. The high-risk patients: 217, mean stay 12 days.

**Conclusions:** This study suggests the possibility of using BRASS Index to identify patients at risk for difficult discharge and/or prolonged hospitalization. In such cases, community health services may be promptly activated in order to organize the discharge efficiently.

### A case of acute respiratory worsening in idiopathic pulmonary fibrosis

D. Tirota<sup>1</sup>, G. Eusebi<sup>1</sup>, A. Salemi<sup>1</sup>, L. Giampaolo<sup>1</sup>, L. Poli<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale Cervesi di Cattolica, AUSL Romagna, Italy

**Background:** Acute respiratory worsening is an unexpected rapid deterioration of idiopathic pulmonary fibrosis (IPF). In literature 28.8% of patients presented with bronchopneumonia during their clinical course and/or until death, including viral and bacterial infections.

**Case report:** A 80 year old man, with radiological diagnosis of UIP in 2015, has come to our attention for rapidly progressive dyspnea, without fever. Partial respiratory failure, with rapid evolution, subjected to high flows oxygen and high-dose steroids. In history: dysmetabolic syndrome, since 2012 multiple hospital admissions for COPD reactivation (never performed PFR), and in 2014 multiple hospital admission for bacterial pneumonia associated to bronchiectasis. Ex smoker. The chest CT scan showed multiple ground glass areas in honeycombing pattern. Blood tests showed important biological inflammatory syndrome. The bronchoalveolar lavage showed many macrophages, rich share of neutrophils and lymphocytes, rare eosinophils, some atypical pneumocytes as diffuse alveolar damage, positive HSV 1, CMV DNA. The patient was subjected to antiviral therapy, but, for progressive respiratory failure, death occurred.

**Discussion:** In patients with IPF it is necessary to be careful to the number and type of lung infections, which affect the prognosis of patient. Viral and bacterial infection may predict a poor prognosis; exacerbations of existing fibrosis involves active viral replication and seems to be influenced by antiviral therapy. Viral (especially herpesviral) infections also seems to be associated to IPF development, by reprogramming of lung epithelial cell during latency.

### What formation and what education to research for a scientific society?

D. Tirota<sup>1</sup>, T.M. Attardo<sup>2</sup>, A.L. Patti<sup>3</sup>, S. Piras<sup>4</sup>, L. Tesej<sup>5</sup>, M. Tonani<sup>6</sup>, F. Berti<sup>3</sup>

<sup>1</sup>Medicina Interna, Ospedale Cervesi di Cattolica (RN), AUSL Romagna; <sup>2</sup>UO Medicina Interna, Ospedale di Canicattì (AG); <sup>3</sup>UO Medicina Interna, Azienda Ospedaliera S. Camillo Forlanini, Roma; <sup>4</sup>Medicina Interna Ospedale Civile Alghero; <sup>5</sup>Dipartimento Medico A.V. Ancona ASUR, Marche; <sup>6</sup>UO Medicina 2, IRCCS Policlinico San Matteo, Pavia, Italy

**Background:** Systematic Reviews (RS) are critical links in the great chain of evidence. Prepare, update and disseminate RS of controlled clinical trials on the effects of health care is one of the duty of a Scientific Society (SS). Formation in a SS should be oriented not only in primary studies but in secondary study too and in the methodology to built this kind of studies.

**Methods:** The FADOI path to develop the knowledge in SR aimed to provide methodological-practical skills necessary to develop SR. Short plenary sessions were alternated with practical exercises, increasing the confidence with software-quantitative analysis. The course, organized in 4 months, included 18 participants divided into 3 working groups, with homogeneous representation of Italy. The 3 groups developed project and RS (pyelonephritis, urinary tract infections, pneumonia). We probed, with a questionnaire, preliminary knowledge on EBM and final satisfaction.

**Results:** The participants (mean age 37.3 years, 28-52), showed preliminary modest/good EBM knowledge, but none experience in RS conduct. The participants were satisfied, getting professionally independent in the RS design, conduct, analysis, interpretation and it's available to permanent working area. RS are low cost, with important methodological aspect and, if well conducted, not influenced by industrial interests and associated

to educational value. Furthermore they lead the clinical to methodological approach, represent a cultural stimulus and a means of scientific advice.

### Sindrome di Douge-Potter: un raro caso di ipoglicemia paraneoplastica non insulare

L. Todaro<sup>1</sup>, F. Ragazzoni<sup>1</sup>, G. Leone<sup>1</sup>, P. Anselmo<sup>1</sup>

<sup>1</sup>UOA Medicina Interna, Ospedale di Chivasso, ASL TO4, Italy

**Premesse:** Il Tumore Fibroso Solitario (SFT) del polmone è una rara forma di tumore mesenchimale della pleura. La sua incidenza è di circa 1.4 per milione/anno. Spesso ha decorso benigno, ma può recidivare e nel 10-20% dei casi è classificato come maligno all'esordio. In circa il 5% dei casi si associa ad ipoglicemia paraneoplastica (sindrome di Douge-Potter) non insulare (NICTH); la NICTH ha una incidenza di circa un caso per milione/anno.

**Case report:** Descriviamo il caso di una signora di 77 anni ricoverata per ipoglicemia persistente non iatrogena; insulina <0.2 microUI/ml (vn 2.6-24.9), peptide C 0.59 ng/ml (vn 0.80-4.2). In anamnesi diagnosi di SFT a livello del cavo pleurico sinistro quattro mesi prima. La biopsia aveva evidenziato caratteristiche di benignità e la paziente aveva rifiutato l'intervento chirurgico. È stata trattata con infusioni continue di glucosio (circa 100-150 g/die), necessarie per mantenere l'euglicemia nonostante un regolare apporto alimentare per os. Dopo exeresi toracotomica completa del fibroma è stata ottenuta la risoluzione dell'ipoglicemia. L'esame istologico ha confermato la diagnosi di SFT e sono stati considerati segni di malignità il riscontro di foci di cellule anaplastiche, l'alto indice mitotico e l'elevata cellularità. **Conclusioni:** Il monitoraggio glicemico rappresenta un test di screening semplice e sensibile circa la possibile evoluzione in senso maligno del SFT. Ugualmente, in caso di ipoglicemia con valori di insulina ridotti, va ricercato questo tipo di tumore nella diagnosi differenziale delle sindromi paraneoplastiche.

### A strange case of asthma

S. Tomeo<sup>1</sup>, F. Napoli<sup>1</sup>, M.C. Giufrè<sup>1</sup>, N. Laganà<sup>1</sup>, A. Caruso<sup>1</sup>, D. La Rosa<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

**Introduction:** We report a case of a 47-year-old female patient who presented with shortness of breath, chest discomfort, persistent dry cough and peripheral oedema. She was overweight (BMI 32) and a smoker since she was 20 years old; she was affected by hypertension in treatment with ACE-inhibitor.

**Diagnostic iter:** Chest X-ray, laryngoscopy and spirometry were performed and excluded pulmonary diseases. Transthoracic echocardiogram (TTE) was performed to explore cardiac performance and showed ventricular hypertrophy without any hypokinesia. Esophagogastroduodenoscopy revealed hiatus hernia. Therefore we prescribed PPI and sartanic and diuretic in place of ACE-inhibitor. Dry cough and dyspnea improved. We made diagnosis of gastroesophageal reflux and suspected a secondary asthma. A spirometry with reversibility test confirmed our diagnosis because there was a post-bronchodilatation improvement of FEV1 of 21%.

**Conclusions:** The patient started pharmacological therapy with inhalator corticosteroids and beta 2 agonists. Resolution of symptoms and spirometric performance after 2 months of therapy suggest that this is a case of cough variant asthma syndrome.

### Rare case of recurrent ischemic stroke during anticoagulant therapy in arterial thoracic outlet syndrome

M. Tonani<sup>1</sup>, F. Falaschi<sup>1</sup>, G. Secco<sup>1</sup>, D. Della'aera<sup>1</sup>, M. Stroppiana<sup>1</sup>, L. Porretti<sup>1</sup>, F. Rella<sup>2</sup>, E. Lefe<sup>2</sup>, A. Martignoni<sup>1</sup>

<sup>1</sup>SS Malattie Cardio e Cerebrovascolari, SC Medicina Generale 2, Dipartimento Area Medica, Policlinico Fondazione IRCCS San Matteo, Pavia; <sup>2</sup>SC Radiologia e Neuroradiologia Diagnostica ed Interventistica, Fondazione IRCCS San Matteo, Pavia, Italy

**Introduction:** Compression of brachial neurovascular bundle causes Thoracic Outlet Syndrome (TOS). Arterial involvement

(aTOS) is rare (<1%); ischemic stroke is a rare complication of aTOS and may be the first symptom.

**Cases:** A 58 yo woman was admitted in Stroke Unit for right anterior ischemic stroke, treated successfully (NIHSS 15 to 6) with mechanic thrombectomy. She was on warfarin treatment since seven months for vertebro-basilar stroke with upper right limb ischemia, due to subclavian artery thrombosis, treated by intravenous thrombolysis. The autoimmune panel was negative, congenital thrombophilic state and Antiphospholipid Syndrome were excluded. The dynamic angio CT showed persistent subclavian artery thrombosis for right TOS due to displaced fracture of the clavicle (childhood trauma). The patient was referred to Orthopedic and Vascular Surgeon team treatment.

**Discussion:** aTOS is associated with skeletal abnormalities, congenital or acquired. Prolonged arterial compression leads to development of aneurysm, clot and embolization to the limb or backwards in brain. In most cases, embolization is from the right subclavian artery in the anterior right circulation, rarely in unilateral or bilateral posterior circulation. In our case the recurrence of stroke in aTOS happened during well conducted warfarin therapy.

**Conclusions:** In young patients with stroke TOS should be considered to evaluate decompressive surgery options. Treatment can be conservative (antiplatelet or anticoagulant and physiotherapy) but often surgical decompression is needed.

### Impact of body mass index on hemoglobin A1c reduction in response to insulin degludec-liraglutide in subjects with type 2 diabetes uncontrolled on sulfonylurea, GLP-1 receptor agonists or insulin glargine: analyses from completed phase 3b trials

G. Tonolo<sup>1</sup>, S. Harris<sup>2</sup>, E. Jaeckel<sup>3</sup>, E. Jodar<sup>4</sup>, I. Lingvay<sup>5</sup>, K. Chandarana<sup>6</sup>, G. Lastoria<sup>7</sup>, T. Abrahamsen<sup>8</sup>

<sup>1</sup>Struttura Complessa Aziendale di Malattie Metaboliche e Diabetologia Olbia, Italy; <sup>2</sup>University of Western Ontario, London, ON, Canada; <sup>3</sup>Hannover Medical School, Hannover, Germany; <sup>4</sup>University Hospital Quiron Salud Madrid, Madrid, Spain; <sup>5</sup>UT Southwestern Medical Center, Dallas; <sup>6</sup>Novo Nordisk A/S, Søborg, D; <sup>7</sup>Novo Nordisk Medical Affairs Rome, Italy; <sup>8</sup>Novo Nordisk A/S, Søborg, Denmark

Previous analyses of phase 3a trials (DUAL I extension; DUAL II) showed that insulin degludec/liraglutide (IDegLira) is efficacious irrespective of baseline body mass index (BMI) category in subjects with T2D who are insulin naïve or uncontrolled on basal insulin. This post hoc analysis aimed to confirm these findings in additional populations; T2D subjects uncontrolled on (i) glucagon-like peptide-1 receptor agonist (GLP-1 RA) (DUAL III: IDegLira versus unchanged GLP-1 RA), (ii) sulfonylurea (SU)±metformin (DUAL IV: IDegLira versus placebo) and (iii) insulin glargine (IG) (DUAL V: IDegLira versus continued titration of IG from pre-trial dose). Starting dose of IDegLira was 10 dose steps [1 dose step=1 U IDeg+0.036 mg Lira] in DUAL IV and 16 dose steps in DUAL III and V; maximum IDegLira dose: 50 dose steps for all trials. This analysis of 3 trials grouped subjects by BMI category; <30, ≥30- <35 and ≥35 kg/m<sup>2</sup>. In all 3 trials, change in HbA1c with IDegLira was similar between BMI groups. Change in HbA1c was significantly greater with IDegLira versus comparator in all BMI groups with a similar treatment difference between BMI groups (p=NS for all trials). This analysis confirmed IDegLira effectively reduced HbA1c across all baseline BMI categories when used in subjects previously treated with SUs (as an add on), GLP-1 RA or IG (all±other oral therapies).

### Organizational impact of early supportive care in oncology

M. Torchio<sup>1</sup>, S. Zanirati<sup>1</sup>, C. Cavalli<sup>1</sup>, A. Olgiati<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

**Background:** Anticancer-related adverse effects (physical, psychological and social aspects) as well as any consequences can contaminate and weaken performance and effectiveness of the treatment itself. Simultaneous care means a set of strategies for preventing occurrence of adverse events in cancer patients (pts) and supporting development of anticancer treatment, embracing

the largest possible number of needs. The anticipation of simultaneous care produces greater tolerance and effectiveness of treatment, with a better quality of life, within the planned dose-density and dose-intensity. We estimated the impact of simultaneous care on clinical activity of our Medical Oncology Day Hospital.

**Materials and Methods:** From January 2016 to December 2016, 2743 Day Hospital access were performed, including administration of anticancer drugs and support therapies, in solid and hematological adult cancer pts.

**Results:** 841 access included supportive interventions (transfusional, nutritional-hydration, anti-emetic interventions). We also recorded 345 psycho-oncological evaluations, 210 cardiac, 210 nephrologic, 54 neurologic, 107 pain therapy, 67 orthopedic, 89 psychiatric, 24 dermatologic, 67 dentistry, 145 nutritional-metabolic assessments, 43 colostomy management training.

**Conclusions:** Simultaneous early supportive interventions have an important organizational impact in the daily activity in oncology and are crucial in improving anticancer treatment tolerability, pt compliance and overall treatment efficacy.

### Leptomeningeal carcinomatosis in a patient with surgically treated, early-stage lung adenocarcinoma

M. Torchio<sup>1</sup>, A. Olgiati<sup>1</sup>, V. Cinchetti<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

**Background:** The follow-up program in patients (pts) with early stage cancer radically treated should investigate precocious disease recurrence. Available guidelines on follow-up, taking into account site, risk factors and cancer behavior, represent a compromise between benefit and risk, they also should always be adapted to the clinical evaluation of every single pt.

**Patients and Methods:** We present the clinical case of a 70-year-old man came to our attention in November 2016 for asthenia, disfagia anorexia and weight loss. In anamnesis we recorded gastric ulcer, colon diverticulosis, blood hypertension. In July 2016 the pt underwent resection of lingula for lung adenocarcinoma G3 pT2aN2: considering early stage disease, there wasn't a strong recommendation for adjuvant chemotherapy and he was added to strict clinical-imaging controls. During hospitalization CT scan was negative for disease recurrence both in abdomen or in thorax. Echography of sovra-aortici trunks and lower limbs were negative for thrombotic events, trans-oesophageal echocardiogram was negative for cardiac thrombosis. A cerebral CT scan showed multiple ischemic foci and suspected multiple leptomeningeal lesions. He was transferred at the Neurology Department: MRI confirmed a leptomeningeal carcinomatosis, even if rachicentesis was negative for circulating tumor cells.

**Conclusions:** Our pt, with early phase disease, showed recurrence in a typical site (brain) but with an extremely rare localization such as the leptomeningeal carcinomatosis, generally seen in very advanced stage lung cancer.

### The attitude of oncologists in the cardiovascular monitoring in breast cancer patients undergoing adjuvant therapy

M. Torchio<sup>1</sup>, C. Cavalli<sup>1</sup>, A. Olgiati<sup>1</sup>, S. Zanirato<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

**Background:** In patients (pts) with early stage breast cancer (BC) adjuvant treatment (chemotherapy, CT, radiotherapy, RT and hormone therapy, HT) exposes to cardiovascular and thromboembolic toxicities: in last years Authors wrote guidelines for the prevention and monitoring of these toxicities, which are lacking for adjuvant OT. We recorded the behavior adopted by Oncologists of our Hospital regarding evaluation of cardiovascular toxicity in BC pts before and during adjuvant HT.

**Materials and Methods:** From January to December 2016 we observed 56 hormonopositive BC pts (33-88 years old, 6 premenopausal and 49 postmenopausal state) who are candidate for adjuvant HT.

**Results:** The pts who had previously completed adjuvant CT or CT/RT, before and during HT continued with a morpho-functional

cardiac evaluation with every six months control of echocardiography and electrocardiogram, and monitoring every three months of proBNP and troponin. Patients who instead only received HT after surgery were especially monitored for metabolic-cardiovascular risk factors: every three months they performed measures of body weight, blood glucose, lipid profile.

**Conclusions:** In the first pts population was predominantly recorded cardiac toxicity (in particular related to previous CT and RT) but less than thromboembolic, while the second population follow-up focused more on metabolic-thromboembolic risk factors. It should be desirable to draw up a diagnostic protocol that takes into account possible cardiovascular metabolic and thromboembolic toxicities of HT.

### Application of a diagnostic algorithm for renal impairment in patients with multiple myeloma

M. Torchio<sup>1</sup>, C. Cavalli<sup>1</sup>, A. Gazo<sup>2</sup>, A. Massoglia<sup>2</sup>, R. Bellazzi<sup>2</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia; <sup>2</sup>U.O. Nefrologia e Dialisi, Ospedale Civile di Vigevano, ASST di Pavia, Italy

**Background:** Renal impairment (RI), defined as serum creatinine above upper normal limit or >2 mg/dl or a estimated glomerular filtration rate (eGFR) <60 ml/min/1.73m<sup>2</sup>, occurred in 20-50% *de novo* multiple myeloma (MM) and 60% known MM patients (pts). Timely diagnosis of RI in MM is essential. We applied a diagnostic algorithm obtained from the International Myeloma Working Group Recommendations in pts admitted for RI, in order to investigate if this diagnostic workflow could reduce time of RI and MM diagnosis, duration of hospitalization, costs for exams or procedures.

**Materials and Methods:** At hospital admission pt performed complete blood and urine analysis (renal function, electrolytes, immunofixation, electrophoresis, complement, cryoglobulinemia, HbA1c, urinary rate every 6 hours). We recorded eventual nephrotoxic therapies and objective signs of RI. On the second day pt underwent chest X-ray, hearth and abdomen ultrasonography, electrocardiography: on the third day we eventually performed biopsies (bone marrow in suspected MM pts, renal in suspected cast nephropathy pts, umbilical fat for amyloidosis).

**Results:** From March to December 2016 we admitted 57 pts with RI and monoclonal component (29 F, 28 M, 41-83 yrs range), 20 are known MM pts and 37 *de novo* pts. We diagnosed 11 *de novo* MM, 13 known MM with a *de novo* RI, 12 diabetes related RI, 3 amyloidosis, 16 other causes.

**Conclusions:** We obtained diagnosis of RI within 4 days, both in known and in *de novo* MM pts, reducing hospitalization, unnecessary dialysis and steroids overtreatment.

### Infections in cancer patients: a review

M. Torchio<sup>1</sup>, B. Franceschetti<sup>1</sup>, G. Comolli<sup>2</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia; <sup>2</sup>Laboratori di Ricerca Bioteconologie e Microbiologia e Virologia, Fondazione IRCCS San Matteo, Pavia, Italy

Major advances in the care of cancer patients (pts) have resulted in improved survival but infectious complications remain a significant cause of morbidity and mortality. In pts with hematological malignancies approximately 60% of deaths are infection-related. Fewer data exist on infectious mortality in pts with solid tumors (45% as either the primary or an associated cause of death). To successfully identify, treat, and prevent infections, a comprehensive understanding of risk factors is necessary and clinicians must take into account the changing epidemiology of infections in this population. Risk factors for infection include underlying immune deficiencies, comorbidities and treatment-related adverse effects, multiple factors may exist in a pt, and their cumulative burden reflects the risk of infection. They are associated with specific infectious pathogens, and an understanding of each individual risk factor can help direct strategies for diagnosis and treatment. Bacterial infections predominate, followed by fungal infections. Viral infections occur



not infrequently, often as a result of reactivation of latent disease, primarily in pts with hematological malignancies. Parasitic and other unusual infections are encountered less frequently but should be considered in pts with appropriate exposure history. Epidemiologic trends include recognition of emerging pathogens or syndromes and increasing antimicrobial drug resistance that is now commonplace among and fungi and is increasing among some viruses.

### A rare localization of malignant mesothelioma of the peritoneum

M. Torchio<sup>1</sup>, G. Andreoni<sup>2</sup>, G. Ferrari<sup>2</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia; <sup>2</sup>U.O.C. Medicina Interna, Ospedale di Stradella, ASST di Pavia, Italy

Peritoneal mesothelioma is a rare disease: patients (pts) are often misdiagnosed, with consequently frequent undertreatment, and potential death for bowel obstruction, and perforation. We present the case of a 68 year-old male with rare epithelioid peritoneal mesothelioma. In 2014 pt was admitted for evidence of a solid, retroperitoneal mass of seven centimeters of diameter: he underwent radical surgery, and successive histological exams defined this lesion as extradiagnostic neuroendocrine tumor. The pt began a follow-up program and came to our attention seven months later for a CT-scan evidenced retroperitoneal disease recurrence. We performed multiple CT-guided biopsies of this mass with diagnosis of an undifferentiated carcinoma. We repeated biopsies during an exploratory laparotomy that showed a large tumor on lower right quadrant without peritoneal carcinomatosis: histological analyses documented a diffuse malignant epithelioid peritoneal mesothelioma. The pt was excluded for surgery and received four courses of palliative chemotherapy with carboplatinum and pemetrexed: the CT-scan conducted immediately after the last course evidenced a retrogastric disease progression. The pt refused any other treatment, included a protocol of hyperthermic intraperitoneal chemotherapy, and was transferred to the Palliative Care Unit, where he died one month later. Diagnosis of diffuse peritoneal mesothelioma is very difficult due to the extremely rare clinical and imaging data: especially in high incidence areas, it could be treated with a precocious multidisciplinary approach.

### Tramadol dependence: a case report

A. Toto<sup>1</sup>, S. Mandarini<sup>2</sup>, D. Pontoriero<sup>3</sup>, M. Scalise<sup>1</sup>, A. Bianchi<sup>1</sup>, E. De Mattia<sup>1</sup>, M. Di Carlo<sup>1</sup>

<sup>1</sup>UOSD Terapia del Dolore e Cure Palliative, Ospedale S. Pertini, Roma; <sup>2</sup>UOC Patologie da Dipendenza, ASL Roma2, Roma; <sup>3</sup>DAI Medicina Interna, Immunologia Clinica, Nutrizione Clinica ed Endocrinologia, Policlinico Umberto I, Roma, Italy

**Background and Aim of the study:** Tramadol is often prescribed in analgesic therapy because of its weak mu-opioid agonist properties combined with inhibition of norepinephrine and serotonin reuptake. The abuse probability in USA from 1995 was 2-3/100.000 and then decreased to 1/100.000, in EU after 20 years there is only little scientific evidence of any dependence on this drug. Tramadol is generally considered to be safe and to have a minimal potential for abuse.

**Case report:** A patient, male of 56 years old, with cocaine and heroin abuse history, with hepatic transplant and nephrectomy for renal cancer. From 2015 abdominal non oncological chronic pain, with nrs 5/7, in analgesic therapy with tramadol at daily dose of 200 mg (50 mg long acting tablet b.d.) after six months the daily dose was 800 mg of tramadol spray therapy. At present the tramadol dosage is of 500 mg administered by drops.

**Results:** The identification of tramadol dependence was conducted based on DSM-5 (the American Psychiatric Association diagnostic and statistical manual of mental disorders, fifth revision). Results of this case report suggest that high dosage, long time of usage and dependence history probably increase the ability of tramadol to induce dependence.

**Conclusions:** Though tolerance and dependence were not de-

scribed after repeated administration of tramadol in humans, this case reports that tramadol can lead to dependence mostly in previously dependence subjects.

### Opioids in cirrhotic patients with moderate/severe pain: boon or bane?

F. Tovoli<sup>1</sup>, S. De Lorenzo<sup>2</sup>, B.G. Samolsky Dekel<sup>3</sup>, G. Negrini<sup>1</sup>, F. Piscaglia<sup>1</sup>, G. Brandi<sup>2</sup>, L. Bolondi<sup>1</sup>

<sup>1</sup>Unità di Medicina Interna, Dipartimento di Scienze Mediche e Chirurgiche, Università di Bologna, Bologna; <sup>2</sup>Unità di Oncologia, Dipartimento di Medicina Diagnostica, Specialistica e Sperimentale, Università di Bologna, Bologna; <sup>3</sup>Unità di Anestesiologia e Terapia del Dolore, Dipartimento di Scienze Mediche e Chirurgiche, Università di Bologna, Bologna, Italy

**Background:** Chronic pain treatment in patients with liver cirrhosis is an open challenge in the clinical practice. Physicians are concerned by potentially severe adverse events deriving from the use of opioids.

**Aim:** Efficacy and safety assessment of oral association of oxycodone/naloxone (OXN) in the treatment of moderate/severe cancer pain in cirrhotic patients with metastatic hepatocellular carcinoma (HCC).

**Methods:** We enrolled HCC patients with pain unresponsive to paracetamol alone or in association with codeine-tramadol. All patients received an initial OXN dose of 5 mg bid to be gradually increased in case of insufficient analgesia. Follow ups after enrollment were scheduled weekly for a month (T7, T14, T21, T28). At baseline and follow-up visits we evaluated: pain intensity (NRS score), opioid-induced side effects, bowel dysfunction (using the Bowel Function Index, BFI), patients' autonomy in daily activities (Barthel scale).

**Results:** Among the 30 enrolled patients no clinically significant adverse effects were reported. Two patients (6.7%) discontinued treatment before T14 because of mild nausea and dizziness. The remaining patients experienced a significant reduction in the mean of pain scores both at T14 (-36.18±16.4%, p<0.001) and at T28 (-54.7±21.9% p<0.001); Barthel scores showed gradual and significant increase from T0 (81.0±11.8) to T14 (87.3±10.8, p<0.001) and to T28 (89.1±13.3, p=0.004). No worsening of the BFI score was noted.

**Conclusions:** OXN is an effective, safe and tolerable treatment of moderate/severe cancer pain in the fragile population of cirrhotic patients.

### Appropriatezza organizzativa: utilizzo della metodica PRUO (Protocollo di Revisione dell'Uso dell'Ospedale) nella Medicina Interna di Sassari

C.A. Usai<sup>1</sup>, A. Azara<sup>2</sup>, A. Filippi<sup>3</sup>, F. Bandiera<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Sassari; <sup>2</sup>Struttura Complessa Igiene e Medicina Preventiva, Sassari; <sup>3</sup>UOC Lungodegenza, Sassari, Italy

**Premesse e scopo dello studio:** L'appropriatezza è un concetto complesso e multidimensionale. Attualmente si identificano 2 tipi di appropriatezza: quella organizzativa e quella clinica. Una procedura è appropriata se il beneficio atteso supera le eventuali conseguenze negative con un margine sufficientemente ampio tale da ritenere che valga la pena effettuarla. Il PRUO (Protocollo di Revisione dell'Uso dell'Ospedale) è costituito da due liste di criteri espliciti con cui quantificare l'utilizzo improprio dell'ospedale per acuti. L'obiettivo è stato quello di valutare l'appropriatezza organizzativa dell'attività di degenza nel 2015 dalla U.O.C. di Medicina Interna della AOU di Sassari.

**Materiali e Metodi:** Nello studio sono state controllate in maniera casuale il 10% delle cartelle cliniche ed applicati i criteri PRUO (275 cartelle cliniche su 2.745) riguardanti sia l'ammissione che la degenza.

**Risultati:** Su un totale di 275 cartelle cliniche esaminate, 255 (92,73%) presentavano soddisfatti i criteri di appropriatezza. Nella quota di ricoveri inappropriati rientravano problematiche di natura socio-assistenziale, organizzativa, ricoveri a bassa complessità assistenziale. I dati sono stati confrontati con struttura benchmark di riferimento. Sono stati integrati con proposte di tipo organizzativo per migliorare le criticità presenti.

**Conclusioni:** Lo studio, partendo dai concetti di appropriatezza organizzativa ed arrivando fino all'analisi PRUO delle cartelle cliniche, si inserisce nel più ampio tema inerente la valutazione ed il miglioramento dell'assistenza sanitaria.

### Idiopathic large chronic effusions

A. Valenti<sup>1</sup>, M. Imazio<sup>2</sup>, A. Assolari<sup>1</sup>, D. Cumetti<sup>1</sup>, A. Calabrese<sup>3</sup>, S. Maestroni<sup>1</sup>, A. Brucato<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale Papa Giovanni XXIII, Bergamo; <sup>2</sup>Divisione di Cardiologia, Città della Salute e della Scienza, Università di Torino, Torino; <sup>3</sup>Cardiologia, Ospedale Papa Giovanni XXIII, Bergamo, Italy

**Background:** The outcome of "idiopathic" (without a known definite cause after diagnostic evaluation) chronic (>3months) large (>20mm on echocardiography) pericardial effusions is poorly known.

**Methods:** Prospective cohort study including all consecutive cases of idiopathic chronic large pericardial effusions evaluated in 3 Italian tertiary referral centers for pericardial diseases from 2000 to 2015. A clinical and echocardiographic follow-up was performed every 3-6 months.

**Results:** 100 pts with an idiopathic large chronic pericardial effusion were included (mean age 60.7±15.5 yrs, 54 females, 45.0% asymptomatic) with a mean follow-up of 48 months. The mean size of the effusion (evaluated as the largest telediastolic echo-free space) was 27±7mm (95%CI 26-29) and decreased to a mean value of 9mm (95%CI 7-11; p<0.0001) with complete regression in 27 pts (27%). There were no new etiological diagnoses. Adverse events were respectively: cardiac tamponade in 8 pts (8.0%; after a mean time of 39 months and precipitated by pericarditis in 50% of cases), pericardiocentesis in 30 pts (30.0%), pericardial window in 12 cases (12.0%), and pericardiectomy in 3 pts (3.0%). No independent predictors of adverse events or cardiac tamponade were identified.

**Conclusions:** The evolution of "idiopathic" chronic large pericardial effusions is usually benign but unpredictable. Management should be individualized based on clinical and echocardiographic follow-up every 3-6 months. Pericarditis may precipitate cardiac tamponade in this setting and warrants special monitoring.

### Localized systemic scleroderma and pulmonary arterial hypertension: a fearsome pair

V. Vannucchi<sup>1</sup>, F. Moroni<sup>1</sup>, L. Masotti<sup>1</sup>, F. Pallini<sup>1</sup>, A. Pesci<sup>1</sup>, G. Landini<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Santa Maria Nuova, Firenze, Italy

Pulmonary arterial hypertension (PAH) is a rare and overlooked disease sometimes associated to scleroderma. An early diagnosis of these conditions may improve the outcome of patients. A 69-year-old woman with a past history of arterial hypertension and Raynaud disease (RD) was admitted to our ED for dyspnea. On admission she presented a severe ARF with high values of BNP (4900 pg/mL). On echo a severe dilatation of right heart (RH) was associated to a high tricuspidal velocity regurgitation (TVR 4,3m/sec), a reduced TAPSE (14mm) and pericardial effusion. A chest CT-scan was negative for pulmonary embolism and lung disease. Diuretics, oxygen and continuous positive airway pressure were started with a progressive improvement of her symptoms. On 4<sup>th</sup> day from admission a RHC was performed showing a mPAP 56mmHg, PAOP 12 mmHg, CI 2,1 L/min/m<sup>2</sup> and PVR 21 WU confirming a PAH diagnosis. ANA and anticentromere antibodies were positive. A diagnosis of localized systemic scleroderma (LSS) was made. Ambrisentan 5 mg/day and tadalafil 20 mg/day were started and patient was discharged on 10<sup>th</sup> day. On 3rd month follow-up she referred an improvement of dyspnea (NYHA class II), BNP was 230pg/mL and on echo, RH was dilated but a reduced TVR (2,9m/sec) and improved TAPSE (19mm) were recorded. PAH represents a well-described complication associated to LSS. However, the initial paucity of symptoms of our patient and the overlooked history of RD resulted in a late diagnosis of her condition. We want emphasize the need to think about PAH in patients with symptoms and signs of rheumatic disease.

### A large vessel vasculitis: a case report

F. Vecchi<sup>1</sup>, A. Minnucci<sup>1</sup>, A. Simone<sup>1</sup>, C. Gollini<sup>1</sup>, C. Benatti<sup>1</sup>, A. Pedrazzi<sup>1</sup>, F. Leonardi<sup>1</sup>, A. Renzi<sup>1</sup>, L. Totaro<sup>1</sup>, A. Zanasi<sup>1</sup>, G. Caffagni<sup>1</sup>, G. Marco<sup>1</sup>, S. Pederzoli<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna NOS, Sassuolo (MO), Italy

A 55-year-old woman was admitted to our division because of an 8-week persistent low-grade fever and weakness. She had a past medical history of hypertension, seronegative arthritis, chordal rupture of the mitral valve, bacterial endocarditis and uveitis. The physical examination was normal except for her body temperature. Laboratory data tests revealed a normocytic anemia and an increase of her inflammatory markers. Autoimmune panel, tumor markers and culture tests on blood, faeces and urine were negative. Her total body CT scan showed multiple ground glass areas and thickness of the vascular wall of some aortic segments and supra-aortic branches. FDG-PET scan showed the presence of high FDG uptake in the vascular wall of some aortic segments. From all the data collected our hypothesis was that the patient suffered from large vessel vasculitis excluding a relapse of endocarditis. Giant cell arteritis (GCA) and Takayasu arteritis (TA) are the two major forms of idiopathic large vessel vasculitis. These are both chronic granulomatous vasculitis of unknown aetiology that involve large vessels. In both diseases the diagnosis and follow up are rendered difficult by the absence of specific marker but improvement in imaging technologies such as angio-MRI and FDG-PET scan are promising for the anticipation of the diagnosis and the follow up. FDG-PET appears to be a suitable modality for the detection of large-vessel inflammation. Corticosteroids still represent the first-line therapy specially in GCA and in association with another immunosuppressive drug in TA.

### Tre motivi per essere ipernatriemico

I. Ventre<sup>1</sup>, F. Marchese<sup>2</sup>

<sup>1</sup>U.O. Medicina Interna, A.O. G. Rummo, Benevento; <sup>2</sup>Dir. U.O. Medicina Interna, A.O. G. Rummo, Benevento, Italy

**Premesse e Scopo dello studio:** Molteplici sono le cause di ipernatremia e spesso coesistono nello stesso squilibrio.

**Materiali e Metodi:** Paziente, 53 aa, giungeva in medicina interna per insufficienza renale acuta ostruttiva con idronefrosi bilaterale di II°. Anamnesi: deficit ipofisario multiplo in terapia con cortone acetato levo-tiroxina desmopressina post adenomectomia ipofisaria. Astenia e contrazione della diuresi dopo un mese di sospensione della terapia. Trattamento dialitico e nefrostomia percutanea destra per il persistere della idronefrosi omolaterale. Normalizzazione degli indici di funzionalità renale e poliuria ipostenurica con ipernatremia ipovolemica da diabete insipido nefrogenico. Doppia trombosi venosa su catetere in femorale dx e VCS. La desmopressina come concausa di trombosi venosa catetere correlata. Risoluzione della idronefrosi, normalizzazione dei parametri di funzionalità renale e ripresa della capacità concentrante del rene. In 10<sup>a</sup> giornata sovraggiungeva profusa diarrea da clostridium difficile e ricompariva la poliuria. Quale la patogenesi? L'ipokalemia di origine extrarenale da profusa diarrea, era la causa del diabete insipido nefrogenico.

**Risultati:** Corretta l'idronefrosi e l'ipokalemia e cessata la sintomatologia intestinale, il tubulo contorto renale tornava sensibile alla desmopressina.

**Conclusioni:** Il caso clinico presentato descrive un'ipernatremia ipovolemica da diabete insipido da triplice meccanismo patogenetico. Carezza di ADH, tubulopatia ostruttiva, ipokalemia.

### Antimicrobial stewardship: why and how

D. Venuti<sup>1</sup>, G. Secondo<sup>1</sup>, M. Torsegno<sup>1</sup>, S. Oddera<sup>2</sup>

<sup>1</sup>OEI; <sup>2</sup>ASL3, Genova, Italy

**Aim of the study:** Since September 2016 we introduced in our Hospital a program of antibiotics stewardship. We want to monitor the use of antibiotics, the adherence to the surgery prophylaxis and the resistance of targeted bacteria

**Materials and Methods:** We offered every day the presence of an

Infective disease consultant in all the Departments, we created a link between Hospital Pharmacy, Microbiology and Hospital Direction. We offered guidelines for Surgery prophylaxis and for the main Infective diseases, we made training course in Infective Diseases. We restricted the prescription of some antibiotics and we each day checked the length of the therapies.

**Results:** We now have a regular control with quarterly reports on the antibiotic consumption, we have information on the bacteria in-hospital resistance. We reduced the consumption of therapies for Surgical prophylaxis and reduced the total spending on antibiotics.

**Conclusions:** The antibiotics stewardship allowed to improve correct and targeted therapies, reduce the bacteria resistance and Clostridium and Candida infection, reduce the length of therapies and the total antibiotics expense.

### An uncommon sepsis in orthopedic department

D. Venuti<sup>1</sup>, P. Lazzone<sup>1</sup>

<sup>1</sup>OEI, Genova, Italy

**Aim of the study:** We want to describe an uncommon cause of sepsis in an Orthopedic Department.

**Materials and Methods:** We observed a SIRS in a young woman after a short cycle of targeted therapies for a post surgery skin infection. We describe the clinical evaluation, the therapeutic choices, the laboratory results and the diagnostic investigations.

**Results:** We observed a systemic Candida parapsilosis infection after a short antibiotic course in a woman under immunosuppressive therapy for autoimmune disease. The patient developed a SIRS syndrome and we had to stop immunosuppressive therapies and to treat with systemic antifungal therapies. The peculiarity of this case was the gravity of the clinical course (APACHE II 20) and the low Candida predictor score (2).

**Conclusions:** Candida infections have an incidence of 1,5/1000 hospital admission and a mortality of 35/50%. The systemic fungal infection are often misunderstood, a late therapy is the main cause of mortality. We usually see fungal infection in UTI, after abdominal surgery and in old pluri-pathological medical patients. It's important to have a high clinical suspicion in all patients if risk factors are present.

### Impact of multiple comorbidities on the mortality in heart failure patients discharged from Internal Medicine Units: preliminary results of POST-SMIT study

V. Verdiani<sup>1</sup>, P. Francesconi<sup>2</sup>, F. Profili<sup>3</sup>, F. Corradi<sup>3</sup>, M. Felici<sup>4</sup>, L. Abate<sup>5</sup>, F. Bacci<sup>3</sup>, B. Alterini<sup>3</sup>, M.R. Lammeli<sup>3</sup>, S. Spolveri<sup>6</sup>, E. Santoro<sup>7</sup>, M. Ceir<sup>8</sup>, P. Fabiani<sup>9</sup>, M. Piacentini<sup>10</sup>, F. Di Mare<sup>3</sup>, G. Bini<sup>11</sup>

<sup>1</sup>Medicina Interna, Grosseto; <sup>2</sup>ARS Toscana; <sup>3</sup>Medicina Interna Careggi, Firenze; <sup>4</sup>Medicina Interna, Arezzo; <sup>5</sup>Medicina Interna, Montepulciano (SI); <sup>6</sup>Medicina Interna, Borgo San Lorenzo (FI); <sup>7</sup>Medicina Interna, Casentino (AR); <sup>8</sup>Medicina Interna, Cecina (LI); <sup>9</sup>Medicina Interna, Portoferraio (LI); <sup>10</sup>Medicina Interna, Piombino (LI); <sup>11</sup>Medicina Interna, Prato, Italy

**Background:** There is growing awareness that comorbidities frequently accompany Heart Failure (HF) and lead to increased morbidity and mortality. While numerous studies focus on a single comorbidity, only few studies examined the prognosis impact of multiple comorbidities in HF patients.

**Methods:** We enrolled patients who were discharged by 23 Internal Medical Units of Tuscany in a period of 30 days with the main diagnosis of HF. We recorded epidemiological, instrumental and clinical data and patients were followed over a 12-months period. We considered 7 comorbidities (diabetes mellitus, hypertension, chronic renal failure, chronic obstructive pulmonary disease, atrial fibrillation, anemia, cognitive deficit). The endpoints was the correlation between number of comorbidities and all-cause mortality at 1, 6, 12 months.

**Results:** We recruited 451 patients (M= 44.3%) with a mean age of 83±8.4 years. Mean LVEF was 44.2±11. Mortality was 9.5%, 25.7%, 38.1% at 1, 6, 12 months respectively. In multivariate analysis mortality was correlated with number of comorbidities (for each increase of one co-morbidity RR 1.21 p=0.07; RR 1.19 p=0.006; RR 1.16 p=0.008 at 1, 6, 12 months respectively). Pa-

tients with ≥3 comorbidities had higher mortality compared with <3 comorbidities at 1 (RR 2.69 p=0.03), 6 (RR 1.63 p=0.04), 12 (RR 1.43; p=0.005) months respectively.

**Conclusions:** In a cohort of HF patients discharged from Internal Medicine Units and followed over a 12-months period, mortality was significantly correlated with the number of comorbidities.

### La Medicina Interna nel percorso post-intensivo del paziente critico

V. Verdiani<sup>1</sup>, G. Spargi<sup>2</sup>, G. Agostino<sup>1</sup>, M. Cericignani<sup>1</sup>, M.G. Forteoloni<sup>1</sup>, L. Galassi<sup>1</sup>, A. Kassapaki<sup>1</sup>, O. Panichi<sup>1</sup>, P. Randisi<sup>1</sup>, A.M. Romagnoli<sup>1</sup>, F. Rossi<sup>1</sup>, A. Rustici<sup>1</sup>, E. Scarpignato<sup>1</sup>, C.F. Vagheggini<sup>1</sup>

<sup>1</sup>Medicina Interna, Grosseto; <sup>2</sup>Anestesia e Rianimazione, Grosseto, Italy

**Background:** Il percorso di assistenza e cura per i pazienti ricoverati in Terapia Intensiva/Subintensiva non può dirsi concluso con il loro trasferimento nei setting di degenza ordinaria. Dati della letteratura riportano una mortalità intraospedaliera post-intensiva dal 9 al 31% e la necessità di riammissione in ambiente intensivo dal 4 al 14%.

**Metodi:** La Medicina Interna dell'Ospedale di Grosseto ha stabilito con la Terapia Intensiva/Subintensiva un percorso strutturato e condiviso per il trasferimento dei pazienti.

**Risultati:** Nell'anno 2016 vi è stato un rilevante numero di trasferimenti dalla Terapia Intensiva/Subintensiva alla U.O. Medicina Interna (107 pazienti, media: 9 per mese; età media 69,3; maschi 49,5%) con una buona programmazione (nessun trasferimento notturno). Sul totale della casistica, soltanto 3 pazienti (2,8%) hanno avuto necessità di essere ritrasferiti in Terapia Intensiva o Subintensiva. La mortalità è stata del 12,1% (età media dei pazienti deceduti: 77,6). La degenza media complessiva è stata di 19,7 giorni. 17 pazienti hanno avuto una degenza >30 giorni. La dimissione al proprio domicilio è avvenuta nel 74,7% dei casi.

**Conclusioni:** La Medicina Interna si propone come elemento importante nel percorso assistenziale del paziente critico. La strutturazione di percorsi condivisi migliora la qualità organizzativa e permette di ottenere esiti soddisfacenti, in linea o addirittura migliori di quanto espresso in letteratura.

### Effects of treatment with liraglutide 3.0 mg in subjects with BMI <35 and BMI ≥35 kg/m<sup>2</sup>: subgroup analysis of the SCALE Obesity and Prediabetes 56-week trial

R. Vettor<sup>1</sup>, X. Pi-Sunyer<sup>2</sup>, J. Wilding<sup>3</sup>, C. Le Roux<sup>4</sup>, S. Lilleore<sup>5</sup>, G. Donnarumma<sup>6</sup>, F. Greenway<sup>7</sup>

<sup>1</sup>University of Padua, Padua, Italy; <sup>2</sup>Columbia University, New York, NY; <sup>3</sup>University of Liverpool, Liverpool, UK; <sup>4</sup>University College Dublin, Ireland; <sup>5</sup>Novo Nordisk, Søborg, Denmark; <sup>6</sup>Novo Nordisk, Rome, Italy; <sup>7</sup>Pennington Biomedical Center, Baton Rouge, LA, USA

**Background and Aims:** This post hoc analysis investigated effects of liraglutide (lira) 3.0 mg in those with BMI <35 vs ≥35 kg/m<sup>2</sup> by testing interaction between baseline (BL) BMI subgroup and treatment effect (BMI <35 n=1279 [lira 3.0 mg 856; PBO 423]; BMI ≥35 n=2383 [lira 3.0 mg 1581; PBO 802]).

**Methods:** SCALE Obesity and Prediabetes (NCT01272219) randomized n=3731 (mean±SD: age 45.1±12.0 years; BMI 38.3±6.4 kg/m<sup>2</sup>; male 21.5%; with prediabetes 61.2%) 2:1 to lira or placebo (PBO) as adjunct to diet and exercise (D&E) for 56 weeks (W).

**Results:** BL demographics were similar for lira 3.0 mg and PBO, and across BMI subgroups, except prediabetes (higher prevalence with BMI ≥35 kg/m<sup>2</sup>). Change in BW (BL-W56) was greater with lira 3.0 mg vs PBO and consistent across subgroups (interaction p=0.2565; ETD 5.7% [95%CI -6.5;-5.0] for BMI <35; -5.2% [-5.7;-4.7] for BMI ≥35 kg/m<sup>2</sup>). Proportion of those achieving ≥5% and >10% weight loss (WL) at W56 was consistent across BMI subgroups (interaction: p=0.0859 and p=0.7252; estimated OR for ≥5% WL: 5.8 [4.4;7.5] for BMI <35; 4.4 [3.6;5.3] for BMI ≥35; for >10% WL: 4.6 [3.3;6.4] for BMI <35; 4.2 [3.3;5.5] for BMI ≥35 kg/m<sup>2</sup>). Greater improvements (lira 3.0 mg vs PBO) in both BMI subgroups were seen for SBP, FPG, and IWQoL-Lite Total score. Only IWQoL-Lite Physical Function score improved more with

BMI  $\geq 35$  kg/m<sup>2</sup> (interaction  $p=0.0398$ ). AEs and SAEs were generally comparable across BMI subgroups.

**Conclusions:** Effects of lira 3.0 mg, as adjunct to D&E, on BW, metabolic control and safety were similar in adults with BMI <35 and  $\geq 35$  kg/m<sup>2</sup>.

### Electrocardiogram of Brugada pattern unmasked by febrile illness

A. Villa<sup>1</sup>, R. Bennicelli<sup>2</sup>, L. Chiappa<sup>2</sup>, S. Rusconi<sup>1</sup>, M. Gregorio<sup>1</sup>

<sup>1</sup>SC Pronto Soccorso, Ospedale di Desio, ASST Monza; <sup>2</sup>SC Cardiologia, Ospedale di Desio, ASST Monza, Italy

In 2000, some authors suggested the possibility that a febrile state may unmask the Brugada syndrome (BS); now this is well known among the cardiologists, but it necessary to introduce this clinical entity to other specialists (especially internal and emergency medicine). We present a case of fever-induced ECG Brugada pattern (EBP).

**Case report:** A 39-year-old male came to our ED with fever, cough and flu symptoms. He had no family history of sudden death nor experienced episodes of syncope. His body temperature was 38.8°; cardiovascular and respiratory examinations were normal; blood sample and chest x-ray were normal. ECG showed ST elevation in lead V1-V2 with bundle branch block typical of EBP. Echocardiogram and electrophysiological study were normal. After therapy with paracetamol he showed clinical improvement and was no more febrile. An ECG with normal temperature demonstrated reversibility of the EBP.

**Discussion:** EBP is dynamic, often hidden and may reveal in the presence of triggers like fever, intoxication (alcohol, cocaine, cannabis), vagal stimulation, electrolyte imbalance, anaesthetics, psychotropic agents (amitriptyline, lithium) and sodium channel blockers. Fever-induced BS is becoming a well known entity. In a recent study it was noted that an EBP was 20 times more likely to occur in febrile patients than afebrile. There are not clear-cut guidelines on the use of routine ECGs in patient admitted with non cardiac illnesses, but an ECG done as a part of routine workup in the ED could contribute to increase the diagnosis of BS, especially in febrile patients.

### Formazione continua e miglioramento dei percorsi diagnostico-terapeutici nella sindrome settica in Pronto Soccorso

A. Villa<sup>1</sup>, S. Armieri<sup>1</sup>, M. Gregorio<sup>1</sup>, S. Rusconi<sup>1</sup>, C. Calissano<sup>1</sup>, D. Zarifi<sup>1</sup>

<sup>1</sup>SC Pronto Soccorso, Ospedale di Desio, ASST Monza, Italy

**Introduzione:** La conoscenza e l'applicazione di PDT appropriati permettono di migliorare il trattamento di pz con sindrome settica (sepsi e shock settico)(SS). Abbiamo confrontato i dati degli accessi in PS in due periodi (A=2013-14; B=2015), nell'intervallo fra i quali si sono messi in atto eventi formativi e di *refresh* dei PDT.

**Materiali e Metodi:** Abbiamo confrontato: severità con MEWS, prelievo per lattati, tempi di esecuzione di colture, *fluid challenge* e antibiotico terapia e l'esito al termine del ricovero.

**Risultati:** In A 212 pz, in B 173 pz. La diagnosi in PS di SS non è stata confermata in 37 pz (18%) vs 20 (12%)( $p$  NS). Confronti A vs B: non differenze di MEWS;lattati: 67% vs 79% ( $p<0.008$ ); colture: 69% vs 69% ( $p$  NS);entro 1 h 15% vs 29% ( $p<0.02$ ); *fluid challenge*: 41% vs 72% ( $p<0.0001$ );antibiotico: 60% vs 94% ( $p<0.0001$ );entro 1 h 18% vs 22% ( $p$  NS). Mortalità 36% vs 35% ( $p$  NS). Escludendo pz che avevano una SS quale evento terminale di una patologia neoplastica o degenerativa la mortalità era 22% vs 17%. In A i lattati >4 mmol/l nel 41% dei deceduti vs 17% dei sopravvissuti ( $p<0.006$ ), in B nel 46% vs 34% ( $p$  NS).

**Conclusioni:** Dopo eventi formativi l'attività diagnostica e i trattamenti precoci in PS sono migliorati. Si è osservata una sovrastima della diagnosi di SS in PS, ridotta nel 2015. La mortalità per SS è contenuta <20% nei pz senza senza comorbidity. La sopravvivenza è migliorata nei pz più gravi. Questo dato è rappresentato da quei pz che, pur con segni predittivi di alto rischio (lattati >4 mmol/l), ma trattati precocemente, hanno avuto un esito favorevole.

### Valore dinamico del dosaggio della procalcitonina nei pazienti con polmonite acquisita in comunità

A. Villa<sup>1</sup>, M. Gregorio<sup>1</sup>, S. Rusconi<sup>1</sup>, S. Armieri<sup>1</sup>, C. Calissano<sup>1</sup>, R. Falbo<sup>2</sup>

<sup>1</sup>S.C. Pronto Soccorso, ASST Monza, Ospedale di Desio (MB);

<sup>2</sup>S.C. Laboratorio, ASST Monza, Ospedale di Desio (MB), Italy

**Introduzione:** Diversi studi hanno dimostrato che la procalcitonina (PCT) può dare informazioni prognostiche in corso di polmonite acquisita in comunità (PAC), ma recenti studi concludono che tale valore prognostico è ancora controverso e necessita di ulteriori approfondimenti.

**Materiali e Metodi:** Abbiamo analizzato retrospettivamente un gruppo di pazienti (pz) con diagnosi di PAC ai quali è stata dosata la PCT all'arrivo in PS, valutata la clearance della PCT [ $PCT_{cl}=(PCT_0-PCT_1)/PCT_0$ ] a 48 h e registrato l'esito al termine della degenza.

**Risultati:** Abbiamo analizzato 238 pz. I confronti fra pz deceduti (34; 14.3%) durante la degenza e sopravvissuti (204; 85.7%) erano i seguenti: severità all'arrivo: con MEWS 0-1 59% vs 36%, 2-4 44% vs 44%,  $\geq 5$  50% vs 22 ( $p<0.0001$ ); con CURB-65 0-3 76% vs 95%, 4-5 24% vs 5% ( $p<0.01$ ); PCT in PS: 1.7 $\pm$ 4.6 vs 3.9 $\pm$ 13.5 ( $p$  NS); la  $PCT_{cl}$  era aumentata nel 74% vs 38%, diminuita fra 0-40% nel 25% vs 30%, diminuita >40% nello 0 vs 32% ( $p<0.0001$ )

**Conclusioni:** Non si conferma il valore prognostico del dosaggio della PCT all'arrivo in PS, mentre il dosaggio seriato acquista significato se i valori di PCT rimangono elevati nelle ore successive. Il dosaggio in PS pertanto è significativo e va consigliato in quanto rappresenta il "punto zero" di un processo dinamico.

### The role of epicardial fat in the cardiovascular risk: there are gender differences?

G.M. Vincentelli<sup>1</sup>, S. Timpone<sup>1</sup>, P. Di Renzi<sup>2</sup>, F. Borgognoni<sup>3</sup>, M. Monti<sup>4</sup>

<sup>1</sup>Emergency Department Fatebenefratelli, Rome; <sup>2</sup>Department of Radiology Fatebenefratelli, Rome; <sup>3</sup>Emergency Department, Assisi; <sup>4</sup>Emergency Department Fatebenefratelli, Rome, Italy

**Background:** Epicardial fat (EF) is considered important risk factor and active player in the pathogenesis of cardiovascular and metabolic diseases. It is an endocrine organ that releases hormones and mediators, including the circulating C-reactive protein (CRP), that play in important role in the growing of coronary atherosclerosis, modifying vascular endothelial function. The aim of our study was to investigate the relationship between CRP concentrations and EF in a cohort of patients with metabolic syndrome at risk for coronary artery disease (CAD).

**Methods:** In our study, we studied in primary prevention, 36 subjects (M/F: 21/15; age: 55 $\pm$ 1.5 yrs) diagnosed with metabolic syndrome. We have classified the patients into two groups: Men and Women. Besides anthropometric characterization and screening laboratory tests, the subjects performed a multi detector computed tomography (MDCT) scan, which allowed the evaluation of and EF quantification.

**Results:** Mean EF were 115.1 cc in the study population. The average EF of women was 111 cc; the average EF of men was 118 cc ( $p$ , 0,18) . CRP levels were strongly positively correlated with EF area in the women ( $p$  0.01), while it was not present correlation in man ( $p$  0.4).

**Conclusions:** Our findings in women of similar relation of epicardial fat to CRP suggest that in women, the epicardial fat, producing a greater amount of acute phase proteins, increases the pro-inflammatory state in the epicardial region. For this reason we can hypothesize, in women, a different role in the development of atherosclerotic plaque of the epicardial fat, than men.

### Non-alcoholic fatty liver disease. Hepatic or systemic disease?

C. Virgillito<sup>1</sup>, R.A. D'amico<sup>1</sup>, I. Morana<sup>1</sup>, M. Callea<sup>1</sup>, S. Neri<sup>1</sup>, C. Di Mauro<sup>1</sup>

<sup>1</sup>Medicina Interna in Area Critica, PO Garibaldi Centro, Catania, Italy

*Non Alcoholic Fatty Liver Disease* causes systemic complications. In NAFLD have a risk of heart diseases 10 years higher. In patients 45-54 years old NAFLD is an independent risk factor for cardiovascular death. In NAFLD, even without metabolic syndrome, we

have more cases of coronary artery disease, risk of unstable plaques, impaired systolic/diastolic function even without obesity, hypertension, diabetes. Hypertensive with diabetes mellitus 2 and NAFLD have increased left ventricular hypertrophy than hypertensive diabetics without steatosis. NAFLD is associated with left ventricular hypertrophy, increase in intima-media thickness, carotid atherosclerosis plaques (independently of cardiovascular risk factors, insulin resistance and factors of metabolic s.), *stiffness*, independent factor predisposing to endothelial dysfunction, precursor of atherosclerosis. The aortic stiffness index has increased. NASH induces chronic inflammation releasing *F-VIII*, *IX-F*, *F-XI*, *XII-F*, atherogenic factors of thrombosis. NAFLD is associated with atrial fibrillation, even after adjustment for risk factors FA, increase QTc interval in type 2 diabetics, atrial/ventricular arrhythmias. Severity of NAFLD is inversely related to lung function. NAFLD is an independent risk factor for colorectal cancer. AHSG (Alfa2-Heremans-Schmid glicoprotein/fetuin-A) is an endogenous inhibitor of the insulin receptors. Its increase correlates with a decrease insulin sensitivity, increased steatosis and intima-media thickness, cardiovascular/peripheral arterial disease, inflammation, atherogenesis, fibrosis.

### Fatal nivolumab-induced interstitial pneumonia in a non-small-cell lung cancer elderly patient

G. Zaccagnini<sup>1</sup>, G. De Marzi<sup>1</sup>, A. Crociani<sup>1</sup>, G. Cioni<sup>1</sup>, C. Florenzi<sup>1</sup>, L. Corbo<sup>1</sup>, F. Bacci<sup>1</sup>, E. Antonielli<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

A 78 years old woman was admitted to our ward for a new-onset severe type I respiratory failure. She had stage IV NSCLC previously treated with cytotoxic chemotherapy and in treatment with Nivolumab at that time. Chest X-ray showed multiple, confluent parenchymal opacities and a diffuse interstitial thickening not previously present. She had no fever, no raise in serum procalcitonin and her total and differential WBC count were normal. She was treated with glucocorticoids, diuretics and broad spectrum antibiotics for suspected pneumonia (including TMP+SMX for PJP) but she continued to deteriorate. A CT-scan confirmed a bilaterally diffuse interstitial and interlobular septal thickening along with multiple ground glass opacities. Her clinical conditions were already critical and she eventually died 3 days later. Approximately 2,5-3% of interstitial lung disease cases are drug-induced. Although Metotrexate is the best known medication to cause ILD, biological drugs increasingly used for cancer therapy have been associated to interstitial pneumonitis as well. Nivolumab is a human IgG4 anti-PD-1 monoclonal antibody used to treat various types of solid cancers including NSCLC as a second line therapy and it has been associated to interstitial pneumonitis in up to 7,2% stage IIb-IV patients during clinical trials. Such IP frequently resolves with discontinuation of Nivolumab and glucocorticoid therapy but in certain cases it shows a progressive, treatment-refractory clinical course.

### Paraneoplastic eczema and nephrotic syndrome: an unusual initial presentation of a breast cancer in an elderly patient

G. Zaccagnini<sup>1</sup>, O. Para<sup>1</sup>, E. Antonielli<sup>1</sup>, L. Fedeli<sup>1</sup>, E. Blasi<sup>1</sup>, C. Cosentino<sup>2</sup>, G. Bruno<sup>3</sup>, M. Nesa<sup>4</sup>, D. Cammelli<sup>5</sup>, L. Corbo<sup>1</sup>, S. Baroncelli<sup>1</sup>, G. De Marzi<sup>1</sup>, C. Florenzi<sup>1</sup>, A. Crociani<sup>1</sup>, F. Pieralli<sup>1</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 1, AOU Careggi, Firenze;

<sup>2</sup>Endocrinologia, AOU Careggi, Firenze; <sup>3</sup>Gastroenterologia Clinica, AOU Careggi, Firenze; <sup>4</sup>DEA, AOU Careggi, Firenze; <sup>5</sup>Reumatologia, AOU Careggi, Firenze, Italy

A 77 year-old woman was hospitalized for a maculopapular, intensely itchy rash on her back and limbs and a coexistent generalized non-palpable purpura which had firstly presented 4 months earlier. Lab tests showed hyporegenerative anemia (overlapping with her known talassemia trait), mild thrombocytopenia with positive anti-EDTA antibodies, positive inflammatory markers, mildly elevated light chains M proteins with normal  $\kappa/\lambda$  ratio and negative urinary Bence-Jones protein, high serum vitamin B12 levels and CKD with nephrotic proteinuria. We tested her for infectious

and autoimmune diseases and for acquired hemostasis disorders (hemophilia and Von Willebrand disease): all the results were negative except for ANA and ASMA tests (slightly positive). Skin biopsy of the itchy rash showed non-specific eczema. A blood smear revealed thrombocytosis with giant platelets and anisopoikilocytosis: therefore, we performed a BMB and diagnosed a myelodysplastic syndrome. We suspected a paraneoplastic etiology for her rash and nephropathy: a total-body CT scan failed to detect any malignancy, but after we learned that she hadn't been screened for breast cancer for a long time we performed a mammography and found a lesion, which was biopsied and proved to be an invasive ductal carcinoma. There are several clinical manifestations of paraneoplastic syndromes. In this particular case, an underlying malignancy presented with eczema and nephrotic syndrome: both are uncommon manifestations, and a concurrent presentation in the setting of a breast cancer is remarkably rare.

### Un caso di trombosi venosa profonda estesa in agenesia della vena cava

M. Zaffaroni<sup>1</sup>, L. Lofrano<sup>1</sup>, E. Fantini<sup>1</sup>, A. Piperno<sup>1</sup>

<sup>1</sup>Ospedale San Gerardo, Monza (MB), Italy

**Introduzione:** L'agenesia della vena cava inferiore (AVCI) è una rara anomalia congenita generalmente asintomatica. Comporta un moderato rischio di malattia trombotica venosa, specie ove coesistono polimorfismi genetici o altri stati di ipercoagulabilità.

**Caso clinico:** Donna caucasica, 23anni. Anamnesi muta. Obesità di 1° grado. In terapia con EP. Durante l'anno precedente calo ponderale marcato ottenuto (oltre 20Kg in 6 mesi) con dieta "fai da te". La settimana precedente il ricovero, ripetuto accesso in PS per algia lombare trattata con FANS con iniziale beneficio. Poi progressivo sviluppo di edemi declivi bilaterali motivo per cui accede di nuovo in PS. Rilievo di movimento del D-dimero. Quindi imaging TAC con evidenza di agenesia della cava inferiore, dilatazione azygos ed emiazygos. Al Doppler Venoso diagnosi di trombosi completa dell'asse iliaco-femoro-popliteo bilaterale. Incipit LMWH e dopo 48ore switch a DOAC (apixaban). Screening trombofilico consentito negativo. Follow-up presso l'ambulatorio divisionale TEV con lenta ma progressiva ricanalizzazione a tutt'oggi ancora incompleta. Terapia condotta con aderenza in assenza di complicanze. Nonostante informazione nel IX/2016 la paziente comunica gravidanza in atto, motivo per cui sospende terapia antiX e passa a LMWH. Gravidanza ad ora condotta regolarmente.

**Discussione:** Non esiste uniformità di opinioni (e quindi linee guida) riguardo la durata della terapia per TVP in presenza di AVCI. Noi abbiamo optato per prolungamento della terapia con DOAC. Gli studi attuali permettono di identificare DOAC specifico in tali casi?

### After four long years: the diagnostic sensitivity of bowel-loops ultrasound

C. Zaninetti<sup>1</sup>, G. Carnevale Maffè<sup>1</sup>, L. Porretti<sup>1</sup>, C. Alfano<sup>1</sup>, P. Formagnana<sup>1</sup>, C.L. Balduini<sup>1</sup>

<sup>1</sup>Department of Medicine, IRCCS Policlinico San Matteo Foundation, University of Pavia, Italy

**Case report:** a 63-year old female patient turned to the general practitioner with abdominal pain for more than three weeks. No other gastrointestinal symptoms were present. Physical examination was normal. Routine laboratory revealed mild microcytic anemia associated with signs of iron deficiency. An abdominal X-ray showed non-specific abnormalities of the bowel gas pattern, and a subsequent CT-scan identified a roundish target-like image made up of a small-bowel loop invaginated into another proximal bowel segment. Since the absence of obstruction, the patient has been just treated with prokinetic, and started a clinical follow-up. Almost four years later, because of the recurrence of abdominal pain, she was admitted to a surgical division. MRI-scan confirmed the "chronic intussusception", assuming the presence of a not well-defined polypoid mass close to it. An exploratory laparotomy to definitively clarify the situation was planned. Before proceeding, an abdominal sonography was performed. It detected a cerebri-form image made up of dilated bowel loops with an uneven hy-

pochoic area consisting of a probable tumor mass originating from the ileum wall. A wide ileal loop excision was performed and histological analysis of the neof ormation allowed to make a diagnosis of moderately differentiated adenocarcinoma.

**Conclusions:** Bowel-loops ultrasound was the only first-level medical imaging technique able to identify the neoplastic lesion at the basis of the intussusception. If it had been performed at first, the patient would have probably benefited by an earlier diagnosis.

### Occult renal cell carcinoma and unknown primary squamous carcinoma: the importance of lymph node evaluation and monitoring

S. Zanirato<sup>1</sup>, M. Torchio<sup>1</sup>, M. Danova<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna e U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

In patients with an histological diagnosis of a unknown primary tumor the research of the primary lesion is fundamental and it can be particularly difficult especially in presence of multiple tumors. We present the case of a 59 years-old man who, in 2013, underwent a complete right latero-cervical lymph node resection for an occult squamous carcinoma (grading 2, stage pTxN2M0). After surgery the patient (pt) performed adjuvant concomitant radiotherapy (44 Gy) and chemotherapy (cisplatin for two cycles). The successive follow-up was negative until November 2015, when CT-scan and PET showed abdominal lymphadenopathies. Biopsy of abdominal mass identified a lymph node involvement of a renal cell carcinoma. The pt came to our attention in May 2016: a new CT-scan showed increasing in abdominal lymphadenopathies, without renal masses. We repeated an abdominal mass biopsy, positive for papillary renal cell carcinoma: in August 2016 pt began a targetet therapy program with Sunitinib. A new CT-scan of February 2017 documented the comparison of a new left supraclavicular lymph node: we have planned a new biopsy of supraclavicular adenopathy in order to detect an eventual disease progression of renal or squamous occult carcinoma. Hystological analyses revealed a renal cell carcinoma localization. Lymph node metastasis in a pt with multiple occult carcinoma may require careful, frequent histological and imaging reassessment in order to obtain a more accurate diagnosis and a more specific treatment.

### Could hydroxyurea be a trigger for acute intermittent porphyria?

P. Zanlungo<sup>1</sup>, E. Pigatto<sup>1</sup>, S.R. Fattore<sup>1</sup>, A. Vallenari<sup>1</sup>, F. Mazzaro<sup>1</sup>, M.G. Schiesaro<sup>1</sup>

<sup>1</sup>Unit of Medicine, Villa Salus Hospital, Mestre (VE), Italy

Porphyrias are genetic metabolic disorders resulting from deficient or absent enzymes in heme biosynthesis. Acute Intermittent Porphyria (AIP) usually presents with abdominal pain, peripheral neuropathy and psychiatric manifestations. Hydroxyurea is a medication used in sickle chronic myeloproliferative disease and its mechanism of action is not clear but it seems to inhibit DNA synthesis. The association of hydroxyurea treatment and acute porphyria has not been reported. We present a case of a 76-years-old male with hypertensive heart disease, permanent atrial fibrillation, vascular encephalopathy and carotid atheromasia. In 2006 he had a cerebral ischemia resulting in aphasia. In 2012 he presented right limbs motor slowing. Parkinson's disease was diagnosed and started therapy with Co-beneldopa. One year after the patient was hospitalized for hyponatremia (127 mEq/l) and thrombocytosis. He was diagnosed chronic myeloproliferative disease and treated with hydroxyurea. In the following three years the patient presented anemia, progressive cognitive impairment, emotional instability, lethargy, constipation, abdominal pain, acute renal failure, lower limbs neuropathy with weakness and episodes of heart failure. His ultrasonography abdomen showed hepatosplenomegaly and electromyography of limbs were normal. The urine was dark and the fluorescence test positive for 5-amonolaevulinic acid (8.3 mg/g, n.v. <4.5) and for porphyrine test (394 ug/24h, n.v.<220) clinched the diagnosis for AIP. We hypothesize a link between Hydroxyurea and worsening of Porphyria manifestations.

### The use of vena cava filters in clinical practice: the experience of Mestre General Hospital

M. Zanon<sup>1</sup>, F. Presotto<sup>1</sup>, F. Caprioglio<sup>2</sup>, M. Dalla Vestra<sup>1</sup>

<sup>1</sup>Department of Internal Medicine, Ospedale dell'Angelo, Mestre-Venezia;

<sup>2</sup>Department of Cardiology, Cardiac Catheterization Laboratory, Ospedale dell'Angelo, Mestre-Venezia, Italy

**Background:** The use of inferior vena cava filters (IVCF) to prevent pulmonary embolism (PE) is increasing. The evidence supporting this approach is mainly based on observational studies and consensus opinions while the insertion of an IVCF exposes patients to the risk of complications and increases health care costs. The aim of this study was to verify the correct use of IVCF in the Hospital of Mestre.

**Materials and Methods:** we collected data of 90 consecutive patients (45 F, 45 M) who underwent to placement of IVCF from Jan 2014 to Nov 2016. According to the indications of the guidelines, patients were divided into 3 Groups: 1) absolute indication, 2) no-absolute indication, 3) no indication.

**Results:** 37.8% of patients were placed in Group 1, 54.4% in Group 2 and 7.8% in Group 3. Patients in Group 2 and 3 differed by the guidelines for the presence of non-absolute contraindication to anticoagulation or for the absence of proximal DVT or PE. 26.6% of the 90 patients was hospitalized in intensive care unit, 18.9% in General Surgery, 15.6% in Internal Medicine. The hospital Unit in which the majority of filters was placed with poor agreement with the guidelines was General Surgery. Only 9% of IVCF were removed, essentially for loss of patients during follow-up.

**Conclusions:** Our study highlights the misuse, not guideline-based, of IVCF. We aim to arrange in-Hospital "expert team" in order to improve the correct employment, management, and follow-up of IVCF and, therefore, optimize hospital resources.

### Diagramma di Ishikawa: analisi di un'epidemia di Clostridium difficile

P. Zappa<sup>1</sup>, C. Bassino<sup>2</sup>, D. Tettamanzi<sup>2</sup>, P. Fagini<sup>3</sup>, D. Sala<sup>2</sup>, D. Casarotti<sup>4</sup>, M. Busnelli<sup>5</sup>, E. Limido<sup>2</sup>

<sup>1</sup>ASST-Lariana Como-Lombardia, Direzione Aziendale delle Professioni Sanitarie; <sup>2</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù, U.O. Medicina Generale; <sup>3</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù, Direzione Medica di Presidio; <sup>4</sup>ASST-Lariana Como-Lombardia, Ospedale F. Villa Mariano C.se, U.O. Riabilitazione Neuromotoria; <sup>5</sup>ASST-Lariana Como-Lombardia, Ospedale S. Antonio Abate, Cantù, Ufficio Epidemiologico, Italy

**Premessa:** Le epidemie ospedaliere sono eventi rari, ma attesi, con frequenza da 1 a 3 eventi ogni 10.000 ricoveri. Se identificate tempestivamente, adottate appropriate misure di controllo, identificate fonti e meccanismi di trasmissione, è possibile ridurre significativamente l'impatto e modificare pratiche non corrette che possono averne condizionato l'insorgenza.

**Materiali e Metodi:** A seguito di un cluster epidemico di Clostridium D. verificatosi nell'U.O. di Medicina, il gruppo di Miglioramento Gestione del Rischio Clinico ha eseguito la Root Cause Analysis dell'evento. Partendo dalla cartella clinica è stato analizzato il percorso clinico-assistenziale di una paziente del cluster e utilizzando il diagramma di Ishikawa sono stati evidenziati problemi di procedura, ambiente, comunicazione, fattori umani, tecnologie, paziente. Un'analisi congiunta dell'epidemia è stata affrontata con direttore, coordinatore infermieristico, referente qualità dell'U.O. e sono state pianificate azioni di miglioramento.

**Conclusions:** È evidente l'ancora scarsa capacità di circoscrivere i casi in un reparto più a rischio per età, comorbidità, vicinanza dei pazienti con conseguenti epidemie. Il lavoro mette in evidenza: - progressivo cambio epidemiologico della patologia da C.D. anche a livello locale; - risorse importanti necessarie per contrastarne il diffondersi, tra cui: l'alto indice di sospetto per la diagnosi precoce, l'implementazione delle precauzioni da contatto e le politiche di farmacovigilanza sull'utilizzo empirico di antibiotici e protettori gastrici.

### Endocuff-assisted colonoscopy: our initial results

M. Zippi<sup>1</sup>, I. De Felici<sup>1</sup>, P. Crispino<sup>2</sup>, C. Cassieri<sup>3</sup>, P. Loizos<sup>1</sup>, G. Traversa<sup>1</sup>

<sup>1</sup>Unit of Gastroenterology and Digestive Endoscopy, Sandro Pertini

Hospital, Rome; <sup>2</sup>Unit of Medicine and Urgency, San Giovanni Hospital, Lagonegro (PZ); <sup>3</sup>Division of Internal Medicine and Gastroenterology, "Cristo Re" Hospital, Rome, Italy

**Background and Aims:** Many methods have been proposed to increase the adenoma detection rate (ADR). Endocuff™ Vision is a new soft plastic cap of 2 cm in length, consisting of a cylindrical core in propylene endowed with small flexible finger-like projections made of a thermoplastic elastomer fixed to the core. During the tool retraction, this device flattens folds, in particular of the sigmoid colon, and flexures of bowels improving the endoscopic view. The aim of this study has been to evaluate the Endocuff-assisted colonoscopy (EAC) in identifying polypoid lesions.

**Materials and Methods:** Colonoscopies were performed using Endocuff Vision™ by expert operators with conventional colonoscopes (CF-Q165L, CF-H1285L, Olympus Optical, Hamburg, Germany). The bowel preparations used were the standard large-volume polyethylene glycol electrolyte solutions.

**Results:** 30 patients (F 18, M 12) with a mean age of 67 years (range: 50-75 years), who underwent first-time screening colonoscopy, were studied. 45 polyps were removed, 36 sessile (80%) and 9 pedunculated (20%). We found polypoid lesions localized especially in the sigmoid colon, which was involved in nearly half of the cases (45.7%). No major adverse events were recorded, except for two cases of superficial "scratch-like" mucosal lesions of no clinical significance that occurred in the case of rigid colon due to inflammation (mild diverticulitis).

**Conclusions:** This accessory appears safe and useful in increasing the detection of the number of polyps and subsequently, the detection rate of adenomas.

#### Hepatitis B and hepatitis C viruses in pancreatic cancer: initial results

M. Zippi<sup>1</sup>, P. Crispino<sup>2</sup>, P. Loizos<sup>1</sup>, C. Cassieri<sup>3</sup>

<sup>1</sup>Unit of Gastroenterology and Digestive Endoscopy, Sandro Pertini Hospital, Rome; <sup>2</sup>Unit of Medicine and Urgency, San Giovanni Hospital, Lagonegro (PZ); <sup>3</sup>Division of Internal Medicine and Gastroenterology, "Cristo Re" Hospital, Rome, Italy

**Background and Aims:** Recent epidemiological data on pancreatic adenocarcinoma (PAC) show how mortality rates for this tumor will increase across Europe (EU) by approximately 50% in 2025 compared to that in 2010, moving from 76.000 deaths to 111.500. Several studies, although the small number of available reports, nearly all performed in Asian populations, show how hepatitis B (HBV) and hepatitis C (HCV) viruses infections may play a role in pancreatic carcinogenesis. No data come from Italy. The aim of this study has been to evaluate the presence of HCV antibodies (anti-HCV) and HBV surface antigen (HBsAg) in blood samples of patients suffering from PAC.

**Materials and Methods:** A small descriptive retrospective study of patients suffering from PAC was performed. For each patient were analyzed data regarding sex, age at diagnosis, localization of the tumor and the serum dosage of HCV antibodies (anti-HCV) and HBV surface antigen (HBsAg).

**Results:** 19 patients (F 9, M 10) with a mean age of 71.9 years (range: 45-93) with a proven diagnosis of PAC, were enrolled in the study. The tumor was localized in the head of the pancreas in 15 cases and in the body/tail in 4 cases. All the patients didn't show the presence of HBsAg, while HCV antibodies were present in 2 cases (10.5%).

**Conclusions:** It's known that HCV might replicate also in pancreatic cells as it does in hepatocytes and, in Western countries, the HBV mass vaccination has greatly reduced the incidence of HBsAg positivity. Our data show a mild correlation between HCV infection and PAC, although large studies are required.

#### Complicated diverticulitis by sigmoidovesical fistula formation: a case report

M. Zippi<sup>1</sup>, G. Grassi<sup>1</sup>, P. Crispino<sup>2</sup>, P. Loizos<sup>1</sup>, C. Cassieri<sup>3</sup>, G. Traversa<sup>1</sup>, I. Febbraro<sup>1</sup>

<sup>1</sup>Unit of Gastroenterology and Digestive Endoscopy, Sandro Pertini Hospital, Rome; <sup>2</sup>Unit of Medicine and Urgency, San Giovanni Hospital, Lagonegro (PZ); <sup>3</sup>Division of Internal Medicine and Gastroenterology, "Cristo Re" Hospital, Rome, Italy

**Introduction:** Only 25% of diverticulitis become complicated, of which approximately 15% need surgery. The incidence of fistulas is about 4-20% with a prevalence of the colovesical ones (CVF). Fecaluria and pneumaturia are present in 40% and 30%, respectively, as clinical presentation.

**Case report:** A 57-year-old woman was admitted for pneumaturia, fecaluria and fever (38-39 °C). An anamnestic history did not reveal past diagnosis of diverticular disease, no personal or family history of IBD or colon cancer, except for a previous hysterectomy. On admission, increased white blood cell count (17,23/mm<sup>3</sup>; neutrophils 87,8%) and index of inflammation (CRP 5.3 mg/dL) were present. The abdomen was poorly treatable with signs of mild peritoneal reaction. An abdominal computed tomography with contrast agent showed signs of sigmoid diverticulitis and gas in the bladder. A fistulography revealed a colovesical fistula. A one-step laparotomy was led in order to achieve a better visualization of the surgical field. At the beginning of the procedure, the sigmoid colon appeared strongly adherent to the bladder and the location of the fistula was observed. After adhesiolysis, a left hemicolectomy associated with repair of the bladder's wall defect were performed. Bowel rest, parenteral nutrition and intravenous broad-spectrum antibiotic therapy were started. The patient recovered well and was discharged 10 days after in good condition.

**Conclusions:** In conclusion, CVF due to sigmoid diverticulitis is a relatively rare disease and early surgical treatment is the best option.

#### Symptomatic bradycardia in bariatric surgery patient

S. Ziyada<sup>1</sup>, P. Loizos<sup>2</sup>, M. Sando<sup>1</sup>, G. Coccia<sup>1</sup>, F. Lorenzi<sup>1</sup>, M.C. Zaccaria<sup>1</sup>, R. Satira<sup>1</sup>, A. Santoro<sup>1</sup>, A. Fierro<sup>1</sup>

<sup>1</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome; <sup>2</sup>Family Physician, Asl Roma 2, Rome, Italy

**Introduction:** The incidence of obesity and associated comorbidities is increasing in Italy. Bariatric Surgery (BS) is an essential treatment option for patients with morbid obesity. All bariatric surgery procedures have short and long term complications, mostly regarding patient nutrition.

**Case report:** A sixty year old male presented to the emergency department with a perianal abscess. Patient history included bilio-pancreatic diversion according Scopinaro sixteen years ago and diagnosis of ankylosing spondylitis six years ago. Lab results showed severe anemia (Hb:6.2 g/dL). The patient received infusional therapy and blood transfusion. Upper endoscopy showed gastric and stomia inflammation, while lower endoscopy integrated with virtual endoscopy showed multiple adenomatous polyps. Symptomatic sinus bradycardia (Heart Rate/37bpm) presented after correction of the anemia. Acute disease was excluded and older ECG confirmed the presence of sinus bradycardia dating few months after BS.

**Discussion:** Up to eighteen percent of patients subjected to BS present sinus bradycardia within months after surgery which is proportionate to the weight loss. This state is usually benign but in our patient cardiac pacing was necessary due to symptomatic bradycardia. Extensive guidelines are available regarding post operative follow up of BS but mostly regard nutritional complications. There is need of further studies and guidelines regarding post operative bradycardia monitoring and treatment.



## ABSTRACTS

### Sindrome postintervallare da intossicazione da monossido di carbonio

G. Aiosa<sup>1</sup>, P. Davio<sup>1</sup>

<sup>1</sup>Medicina Interna, ASO "S.S. Antonio e Biagio & C. Arrigo", Alessandria, Italy

**Premesse:** La sindrome postintervallare è la principale conseguenza dell'intossicazione da CO. Manifestazioni possono presentarsi a 4-40 giorni con una frequenza variabile fra il 5 e il 76%

**Caso clinico:** Uomo di 48 anni. Anamnesi muta. Rinvenuto in coma, midriatico, con il cane morto. Intubato e trasferito presso TIG con iperbarica, COHb 35%. Dopo due sedute estubazione e trasferimento in reparto. Troponina 2,26, ECG BBD minore, ecocardio negativo. Seguiva troponina in riduzione (0,311 alla dimissione dopo 3 giorni) ECG ed ecocardio invariati. Non deficit. Al controllo a 7 giorni asintomatico, ecocardio negativo, Troponina 0. Riferiti fugaci deficit mnemonici. Si effettuava TC con riscontro di ipodensità (testa del nucleo caudato e capsula interna) da sofferenza ipossico-ischemica.

**Discussione:** La patogenesi è ignota, possibili meccanismi sono: insulto ipossico/ischemico, legame del CO con i mitocondri e blocco della catena respiratoria, perossidazione dei lipidi cerebrali, eccessiva stimolazione degli aminoacidi eccitatori. Sono stati identificati fattori favorenti: età oltre i 40 anni, coma in fase acuta e per 2-3 giorni, malattie cardiovascolari, durata dell'esposizione, persistenza di alterazioni EEG. Il valore di COHb non è un indice di gravità per livelli inferiori al 40-50% e non ha significato prognostico. Non predice lo sviluppo della sindrome.

**Conclusioni:** Il paziente è stato reinviato, pur in assenza di evidenze, ad eseguire 10 sedute di iperbarica. La sindrome può risolversi, richiedere fino a due anni per il miglioramento clinico o permanere indefinitamente.

### Inusuale presentazione cutanea di mieloma multiplo

A. Amendola<sup>1</sup>, V. De Crescenzo<sup>1</sup>, M. Magaldi<sup>1</sup>, M. Manini<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale San Giovanni di Dio, Orbetello (GR), Italy

Il mieloma multiplo è un disordine proliferativo delle plasmacellule associato ad anomala produzione di immunoglobuline monoclonali. I segni e sintomi d'esordio della malattia normalmente sono rappresentati da dolori ossei, astenia, alterazione dell'esame emocromocitometrico, alterazione degli indici di funzionalità renale. Il coinvolgimento dell'apparato tegumentario è un riscontro raro e solitamente le manifestazioni cutanee non sono patognomoniche (vasculite leucocitoclastica, pioderma gangrenoso, dermatite bollosa, porpora). Noi presentiamo il caso di una donna di 67 anni, giunta alla nostra osservazione per lesioni cutanee di tipo ulcerativo, diffuse agli arti inferiori, presenti da circa quattro mesi, estremamente dolenti, non responsive a trattamento antibiotico e medicazioni ambulatoriali. L'esame istologico delle lesioni cutanee ha documentato un quadro compatibile con pioderma gangrenoso; la Pz è stata sottoposta a indagini di laboratorio che hanno evidenziato una modesta componente monoclonale. IgA/k (0.9 g/dl); la biopsia osteomidollare ha confermato la presenza di infiltrato plasmacellulare fino all'80%, concludendo per un quadro citologico midollare di Mieloma multiplo. La Paziente ha iniziato terapia con bortezomib e desametasone ottenendo una quasi completa regressione delle lesioni cutanee. Il caso illustra come una manifestazione cutanea può rappresentare l'esordio di una malattia oncoematologica come il mieloma, rappresentando una sfida diagnostica per l'internista, che spesso si trova a prendere in carico il paziente solo dopo l'inevitabile fallimento della terapia specialistica.

### Appropriatezza in Medicina Interna: dati dall'ambulatorio di diagnostica vascolare

M. Amitrano<sup>1</sup>, S. Mangiacapra<sup>1</sup>, F. Cannavacciuolo<sup>1</sup>

<sup>1</sup>AORN "SG Moscardi", Avellino, Italy

L'ECD è un'indagine diagnostica ad elevato rischio di inapproprietezza. A partire dal 7.01.16 al 20.06.16, le richieste di esami diagnostici afferenti all'ambulatorio e provenienti dal territorio sono stati valutati per quanto attiene all'appropriatezza. A tale scopo, abbiamo stilato una "scheda di valutazione dell'appropriatezza" che abbiamo compilato per ogni richiesta. Innanzitutto abbiamo calcolato la percentuale di esami inappropriati per i singoli esami. Per l'ECD venoso degli arti inferiori il 100% degli esami sono risultati inappropriati. Per quanto riguarda l'ECD arterioso degli arti inferiori, le percentuali di esami appropriati e inappropriati sono risultate rispettivamente del 10% e 90%. Per l'ECD dei Tronchi Sovraortici abbiamo avuto 75% di richieste di esami appropriate versus il 25% di inappropriete. Per la capillaroscopia, l'88.8% degli esami sono stati richiesti in maniera appropriata e il 21.2% in maniera inappropriata. Per l'ECD venoso arti inferiori, tra gli esami inappropriati (100%) il 25% sono risultati positivi e il 75% negativi. Per l'esame ECD arterioso arti inferiori tra gli esami appropriati il 50% sono risultati positivi e il 50% negativi; tra quelli inappropriati il 70% è risultato positivo e il 30% negativo. Per l'ECD dei TSA, tra gli esami appropriati, il 55,5% è risultato positivo, mentre il 44,5% è risultato negativo. Tra gli esami inappropriati il 33.3% è risultato positivo e il 66,7% è risultato negativo. Per la capillaroscopia, tra gli esami inappropriati, il 100% è risultato negativo. Tra quelli appropriati, il 75% è risultato positivo e il 25% è risultato negativo.

### La capillaroscopia: lo studio del microcircolo in Medicina Interna

M. Amitrano<sup>1</sup>, S. Mangiacapra<sup>1</sup>, F. Cannavacciuolo<sup>1</sup>

<sup>1</sup>AORN "SG Moscardi", Avellino, Italy

La Capillaroscopia è una metodica che trova indicazione soprattutto nello studio delle microangiopatie e risulta una metodica diretta, ripetitiva e semplice. Essa appresenta sicuramente un'indagine di prima scelta nello studio delle malattie reumatiche ed in particolare nella differenziazione tra Raynaud primitivo e secondario. Tale metodica presenta però notevole interesse anche nel campo più esteso della Medicina Interna, in quanto il derma capillare rappresenta una finestra per lo studio *in vivo* del microcircolo. Un particolare campo di applicazione consiste nello studio della patologia tiroidea. Esistono infatti modifiche capillaroscopiche sia nel Raynaud secondario a Tiroiditi che nell'ipotiroidismo, in particolare nella forma subclinica, in cui l'acrocianosi spesso si manifesta come primo sintomo. Inoltre, come già confermato da dati di letteratura, nei pazienti ipotiroidei è stato possibile valutare le modifiche della perfusione cutanea prima e dopo terapia ormonale sostitutiva: il flusso capillare, ridotto nella fase di ipotiroidismo, si normalizza con il ripristino dell'eutiroidismo. Un altro campo di applicazione, che riteniamo degno di interesse, è il Raynaud secondario a terapia farmacologica. In particolare tra i farmaci maggiormente imputati ci sono i beta-bloccanti, che in soggetti con "terreno Raynaud", causano spesso quadri di importante ischemia distale fino ad ulcerazione e necrosi. Mostriamo una serie di quadri clinici in cui l'intervento correttivo farmacologico ha modificato anche l'aspetto capillaroscopico.



### A case of recurrent vomiting in a patient with type 1 diabetes

A. Assolari<sup>1</sup>, I. Oppedisano<sup>1</sup>, D. Cumetti<sup>1</sup>, M.L. Maglio<sup>1</sup>, A.L. Brucato<sup>1</sup>

<sup>1</sup>Internal Medicine, Hospital Papa Giovanni XXIII, Bergamo, Italy

A 37 years old man with type 1 diabetes presented to the Emergency Department reporting a 3-days history of recurrent vomiting associated with epigastric pain and fever. In his anamnesis, there was a 2-years history of frequent hospitalizations for that same reason. He was not taking any regular medications except from Insulin and Ramipril. Previous investigations, such as head and abdomen CT, EGD and colonoscopy were normal. A clinical diagnosis of gastroenteritis was made two years before. At time of admission in our Internal Medicine Unit physical examination was remarkable only for epigastric pain and tenderness. We asked for and the pt confirmed that hot showers alleviated his symptoms. On the other hand, emesis was poor relieved by metoclopramide and ondansetron. Blood tests showed leukocytosis, hyperglycemia and moderately increased transaminases and amylases levels. Abdominal x-ray was negative for free intra-abdominal air and showed no bowel distention and no air-fluid levels. Abdomen US was normal too. Upper endoscopy documented only a mild reflux esophagitis. Finally, diagnostic hypotheses of diabetic gastroparesis was advanced, but barium swallow test showed normal bolus advancement through esophagus, stomach and small intestine. Afterwards a gastric emptying scintigraphy was asked too. Mean-time a diagnostic test was ordered. Which is the diagnosis?

### A strange edema: case report

A. Asti<sup>1</sup>, P. Tirelli<sup>1</sup>, F. Cacciapuoti<sup>2</sup>, G. Maresca<sup>1</sup>, V. Langella<sup>1</sup>, S. Nardi<sup>1</sup>, G. Perrone<sup>1</sup>, G. D'alessandro<sup>1</sup>

<sup>1</sup>Division of Internal Medicine "S. Maria di Loreto Nuovo" Hospital, Naples; <sup>2</sup>Emergency Department "A. Cardarelli" Hospital, Naples, Italy

17 years old male, hospitalized for the progressive onset of diffuse edema of the limbs and face. In clinical history, apparent good health until 20 days before, when he complained a three days lasting fever, treated with antipyretics (Paracetamol) only; soon after he complained the onset of a diffuse edema gradually more prominent. At the ER admission, ECG and chest X-ray were negative, the patient was afebrile and the first laboratory tests shown a classic condition of nephrotic syndrome: Alb = 1.5g/dl, Proteins = 3.2 g/dl, Tot.Chol=389 mg/dl, ESR=58,24 hrs proteinuria=9.2 g, increased 2 globulins=27.8%, while in the normal range were the blood count, transaminases, BUN, creatinine, electrolytes serum and urine; later on resulted normal the values of immunoglobulins, the complementemia and CRP. Abdomen echography showed: "fluid layer between intestinal loops and in the Morrison space. Kidneys of normal shape and volume". At the admission infusion of Human Albumin 25% 1 fl i.v. twice a day, followed by furosemide 1 fl i.v. were started and the Nephrologist poses an indication for a renal biopsy, done at fifth day of hospitalization. This is conclusive for: "1<sup>st</sup> stage membranous glomerulonephritis". The patient began treatment with prednisone 25 mg bid and at the first follow-up, about a month later, a significant reduction of edema with Alb.=2.8 mg/dL and proteinuria of 24 hours=2.2g were observed. It is an interesting clinical case because of the young age of the patient: membranous glomerulonephritis has, in fact, the highest incidence after the fourth decade of life and is characterized by thickening of the basement membrane immune complex deposition (spikes).

### Definizione e applicazione clinica di una scheda di rilevazione/monitoraggio/trattamento delle lesioni da pressione

P. Ballesini<sup>1</sup>, G. Brancato<sup>1</sup>, A. Costanzo<sup>1</sup>, C. Giacomelli<sup>1</sup>, F. Marsico<sup>1</sup>, A. Papa<sup>1</sup>

<sup>1</sup>Degenza Post Acuzie, AOU Policlinico di Modena, Italy

**Introduzione:** La gestione del rischio e la sicurezza delle cure clinico-assistenziali rientrano tra gli obiettivi assegnati alle aziende sanitarie. Le attività dell'Infermiere rappresentano una quota rilevante dell'attività di assistenza al paziente; tra gli obiettivi del professionista vi sono la sicurezza e l'efficacia delle cure.

Nel corso del 2016 nel nostro Reparto di Degenza Post Acuzie (DPA) è stato avviato un progetto mirato al miglioramento della gestione delle lesioni da pressione (LdP).

**Descrizione:** È stato costituito un gruppo di lavoro formato da Infermieri e Oss che, alla luce dell'analisi della letteratura, dei dati di precedenti rilevazioni aziendali e di revisione critica di cartelle cliniche, e della frequenza di corsi di formazione mirati, ha elaborato una nuova scheda per le rilevazione, descrizione e attestazione del trattamento delle LdP. Nella scheda sono riportati: dati anagrafici del paziente, un richiamo grafico alle possibili sedi di Ldp, vari spazi con indicazione di sede, grado e stato evolutivo delle lesioni e del tipo di trattamento adottato (di cui sono riportati i riferimenti).

**Conclusioni:** Tale nuova scheda di monitoraggio delle LdP è in uso dall'inizio del 2017; si pone gli obiettivi di migliorare la puntualità nella rilevazione della presenza di LdP e della loro evoluzione nel corso della degenza dei pazienti, di migliorare le competenze individuali e garantire maggior uniformità di trattamento inter-operatore delle lesioni stesse e, infine, contribuire alla corretta tenuta della documentazione sanitaria.

### A retrospective study in patients with deep vein thrombosis and neoplasia and the role of new direct anticoagulants in medical prophylaxis

C. Bartalena<sup>1</sup>, M. La Vella<sup>1</sup>, F. Croci<sup>1</sup>, A. Moretti<sup>1</sup>, L. Ghiadoni<sup>1</sup>, F. Carmassi<sup>1</sup>

<sup>1</sup>Medicina d'Urgenza Universitaria, AOUP Cisanello (PI), Italy

It is fully recognized that neoplastic patients are those at the highest risk of developing thrombotic events: indeed, malignancy induces a procoagulant switch in the host hemostatic system with activation of a hypercoagulable state. The goal was to observe the deep venous thrombosis (DVTs) and the propriety of the antithrombotic prophylaxis with particular attention to the neoplastic patients. Retrospective analysis has been made of 34 patients with diagnosis of DVT admitted in the E.M. Unit between Jan and Dec 2016. All patients were checked for risk factors and for cancer in particular, for previous, acute and discharge treatment and for clinical and laboratoristic features. Among 34 patients, 4 had congenital risk factors, 31 had acquired ones and 21 patients had malignancies. Only 7 patients were under prophylactic treatment and 4 of these had malignancy. All the DVTs were treated with antithrombotic therapy both in acute and in discharge. In our study only 10% of the patients with known risk factors and 21% of the patients with malignancy were under prophylactic treatment. A great part of thrombotic events could be prevented just setting up a targeted prophylaxis. Among neoplastic patients, according to literature, prothrombotic phenotype is as aggressive as to show up even if an antithrombotic is used. An extensive use of antithrombotic therapy with NOACs could be more efficient and tolerated. This hypothesis is going to be confirmed from many undergoing studies. In the meanwhile a proper prophylaxis with LMWH should be performed to the neoplastic patients as well.

### An unusual cause of infection

P. Bernardi<sup>1</sup>, A. Mele<sup>1</sup>, T. Sansone<sup>1</sup>, S. Lunardi<sup>1</sup>, C. Marchiani<sup>1</sup>, G. Bandini<sup>1</sup>, M. Gagliano<sup>1</sup>, C. Piazzai<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, N. Palagano<sup>1</sup>, A. Moggi Pignone<sup>1</sup>, G. Ciuti<sup>1</sup>, A. Fabbri<sup>1</sup>

<sup>1</sup>Medicina per l'Alta Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

We report a case of 60 years old woman with a medical history of primary myelofibrosis with mutant Jak 2 in steroid and hydroxyurea treatment and with cryptogenic organizing pneumonia (COP). She has a previous quadrantectomy for ductal carcinoma *in situ* followed by radiation treatment. The patient goes to first aid for progressive weakness with fever lasting 10 days (maximum 37.4°C). A chest radiograph shows basal left lung consolidation. Blood tests reveals white blood cells 107x10<sup>9</sup>/L (with 5% of blasts), hemoglobin 7.6 g/dL, platelets 1.120x10<sup>9</sup>/L, PCT 0.74 ng/mL. During the first days of hospitalization in our ward the patient shows a fever peak at 38.5°C; we take blood cultures that reveals *Eliz-*

abethkingia meningoseptica infection. The bacterium is resistant to most of the tested antibiotics, so we introduce trimethoprim-sulfamethoxazole relying on antibiogram. Since the early days of targeted antibiotic treatment, the patient shows a marked improvement of the clinical conditions and laboratory tests. *Elizabethkingia meningoseptica*, is a gram-negative aerobic bacillus, present ubiquitously, especially in soil and water, often in hospital environment (in medical staff's hands, in some medical devices), that can cause meningitis, pneumonia, sepsis and endocarditis, usually in newborn and immunosuppressed patients.

### La strana presentazione di un linfoma

M. Bernardini<sup>1</sup>, E. Cosentino<sup>1</sup>, F. Corradi<sup>1</sup>, A. Morettoni<sup>1</sup>

<sup>1</sup>Medicina Interna ad Orientamento ad Alta Complessità Assistenziale 1, AOU Careggi, Firenze, Italy

Uomo 64 anni iperteso con recente diagnosi di etp prostatico in attesa di intervento chirurgico entra per episodio di perdita di coscienza con quadro laboratoristico di iperbilirubinemia e screzio pancreatico. All'ecografia dell'addome e alla RM ascite, splenomegalia con multiple focalità, epatomegalia con una nodularità di aspetto analogo a quelle spleniche; allo studio doppler TVP del tronco portale principale del ramo portale sinistro e di parte della vena splenica (risoltesi dopo terapia anticoagulante). Tutti i marker infettivologici, neoplastici e autoimmuni risultano negativi, così come la ricerca di componente monoclonale e del JAK 2. Non storia di assunzione di farmaci a dosaggi epatotossici. Il paziente presenta un progressivo peggioramento della funzionalità epatica con severo incremento della bilirubina e parallelamente la funzionalità renale peggiora al punto da richiedere trattamento dialitico. Si decide di eseguire biopsia epatica da cui risulta un linfoma di alto grado a cellule B coinvolgente estesamente il parenchima epatico. Lo sviluppo di edema polmonare e polmone da shock causano rapidamente il decesso del paziente. L'autopsia conferma la diagnosi rivelando un coinvolgimento anche di milza, polmone destro e rene destro.

### Un ventenne con multiple lesioni epatiche, splenomegalia e linfadenomegalie diffuse

S. Bianco<sup>1</sup>, R. Bonometti<sup>1</sup>, S. Fangazio<sup>1</sup>, P. Giarda<sup>1</sup>, A. Re<sup>1</sup>, M. Tran Minh<sup>1</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Medicina Interna 1, AOU Maggiore della Carità, Novara, Italy

**Caso clinico:** M.A. 20 anni giunge alla nostra attenzione per accessi epatici e splenici multipli. Sei mesi prima episodio di febbre con brivido, mialgie, astenia della durata di circa 4 settimane non responsivo a multiple linee di terapia antibiotica, accompagnato da linfadenopatie diffuse. Eseguite emocolture, sierologie per CVM, EBV e VZV, HIV, anti-Toxo, Brucella negativi. Si evidenzia rialzo degli indici di flogosi. All'imaging confermate multiple linfadenopatie toraco-addominali, splenomegalia e numerosi accessi epatici e splenici. In anamnesi non viaggi all'estero o rapporti a rischio, ma riferiti contatti con animali domestici (gatti e cani). A completamento eseguita sierologia per *Bartonella henselae* risultata positiva per IgG. **Discussione:** La *Bartonella h.* è l'agente eziologico della malattia da graffio di gatto (CSD): l'infezione si manifesta frequentemente con linfadenopatie loco regionali. Talvolta può coinvolgere fegato, milza, occhi ed il sistema nervoso. Il gatto, reservoir naturale del batterio, può infettare l'uomo attraverso graffi o morsi. La conferma della diagnosi deriva dalla positività ad alto titolo della sierologia della *Bartonella*. Nel nostro caso, il riscontro della positività delle IgG e non delle IgM è legata alla tarda valutazione ambulatoriale rispetto all'acuzie, tuttavia essendo la clinica molto suggestiva ed in virtù del coinvolgimento sistemico è stata avviata terapia antibiotica con rifampicina ed azitromicina per 14 giorni, con progressiva risoluzione delle lesioni epatiche e delle linfadenopatie al controllo radiologico a distanza.

### An eight-year long diagnosis

L. Biondi<sup>1</sup>, D. Benfaremo<sup>1</sup>, M. Mattioli<sup>1</sup>, M. Cardinali<sup>1</sup>, V. Pedini<sup>1</sup>, G.P. Martino<sup>1</sup>, L. Manfredi<sup>1</sup>, M.G. Danieli<sup>1</sup>, P. Fraticelli<sup>1</sup>, A. Gabrielli<sup>1</sup>

<sup>1</sup>Clinica Medica, Università Politecnica delle Marche, Ancona, Italy

**Case presentation:** A 69-year-old woman was admitted for a 8-year history of widespread joint pain, with occasional episodes of distal arthritis, and steroid-dependent low grade fever. In 2008 a diagnosis of polymyalgia rheumatica (PMR) was established at another centre. Seven years later, because of continuous exacerbations of pain and minimal radio-carpal erosions on hand MRI seronegative rheumatoid arthritis was diagnosed. Despite DMARDs therapy the symptoms persisted and the patient referred to out department. Our differential diagnosis included infectious diseases, paraneoplastic syndrome, systemic inflammatory diseases and/or coexistence of different diseases. Blood tests only showed increase of inflammatory markers. Blood cultures were negative. A transthoracic echocardiogram was negative for vegetations. Before admission, recent chest CT, abdomen MRI and total body PET had virtually excluded neoplasms or aortitis. Considering that the patient reported bilateral temporal headache, we were still concerned of giant cell arteritis (GCA) and subsequently performed Doppler ultrasound of temporal arteries that showed a thickened wall with absent flow. The biopsy demonstrated chronic inflammation with perivascular multinucleated giant cells and a diagnosis of GCA was made.

**Discussion:** PMR is a systemic inflammatory syndrome that may also present with peripheral arthritis. PMR may frequently evolve into GCA, even after long periods of remission during steroid therapy. This case highlights the importance of a thorough differential diagnosis in the setting of internal medicine.

### Sincope, pericardite e lupus eritematoso sistemico: case report

C. Bologna<sup>1</sup>, E. De Lucia<sup>2</sup>, T. Ciarambino<sup>1</sup>, M. Giordano<sup>3</sup>, N. Passariello<sup>1</sup>, F. Mazzella<sup>4</sup>

<sup>1</sup>Medicina Interna, Ospedale Clinizzato Marcanise, Caserta; <sup>2</sup>Cardiologia, Ospedale Clinizzato Marcanise, Caserta; <sup>3</sup>Nefrologia, Seconda Università degli Studi di Napoli, <sup>4</sup>Medicina Interna, Ospedale Capri, Italy

Una paziente di 17 anni si reca al pronto soccorso riferendo sincope dopo vomito alimentare. Recente sindrome influenzale complicata da bronchite che la paziente ha curato su indicazione del curante con antibiotici betalattamici e antitussigeni. Lamenta epigastralgia persistente. All'ecofast eseguito in PS si osserva versamento pleurico destro e pericardico circonferenziale di un centimetro circa. Viene ricoverata pertanto in reparto dove si evidenzia presenza di ipoalbuminuria e proteinuria di 115000 con comparsa di edemi generalizzati inizialmente a livello del viso, poi estesi in altre sedi corporee, come piedi, caviglie e addome. Sono presenti anche iperlipidemia (aumento prevalentemente della colesterolemia totale e della trigliceridemia). Dagli esami bassi livelli di C3, C4 e CH50 e la positività lieve degli anticorpi anti-fosfolipidi, mentre anti-cardiolipina (aPL/aCL) e gli anticorpi anti-dsDNA risultavano negativi. Solo dopo sei mesi, risultava la positività degli anti-dsDNA, degli aCL e del LA. E' quindi importante, specie in queste forme non ben definite, un monitoraggio semestrale molto attento di tutti gli autoanticorpi, del complemento e della funzionalità renale, per prevenire lesioni d'organo non sufficientemente correlabili ad evidente attività di malattia.

### Oral lichen planus and coeliac disease: a case report

G. Brusco<sup>1</sup>, P. Cavallo<sup>1</sup>, M. Ghelfi<sup>1</sup>, V. Nieswandt<sup>1</sup>, M. Carbone<sup>1</sup>, L. Magnani<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna, Ospedale di Voghera, ASST di Pavia, Italy

Oral lesion can provide a valuable clinical indicator for early diagnosis of coeliac disease CD, since the mouth is easy to examine. Oral lichen planus (OLP) is a possible oral manifestation of CD. OLP is a chronic inflammatory oral disease of unknown aetiology that is characterised by a T cell-mediated chronic immune response. The frequency of CD is much higher than previously thought, but a large number of patients remain underdiagnosed. We describe the case of a 30-year-old white woman with a clinical and histopathological confirmation of OLP. The patient hadn't gastrointestinal symptoms. Complete blood counts, erythrocyte sedimentation rate, serum iron, vitamin D levels, serum electrolytes and thyroid studies were reported to be

within normal range. Serology for CD showed elevated levels of antendomysial and tissue transglutaminase IgA antibodies. Upper gastrointestinal endoscopy with biopsy was performed. Histopathological examination of the duodenal mucosa confirming the diagnosis of CD. The patient was started on a gluten-free diet (GFD), leading to improvement of oral lesions. The basis for the associations between CD and other autoimmune disease, such as OLP, may be similar, shared pathogenic autoimmune mechanism. It is not clear whether the oral lesions are a direct manifestation of CD or whether they arise because of the effects of malabsorption on the rapidly dividing mucosal cells that are already predisposed to soreness by a pre-existing disease. The dentist should play more significant roles in screening of CD.

### Infection from *Scedosporium apiospermum*: case report

T. Candiani<sup>1</sup>, S. Vernocchi<sup>1</sup>, F. Deantoni<sup>1</sup>, O. Grassi<sup>1</sup>, G. Alessandro<sup>1</sup>, R. Padalino<sup>1</sup>, C. Ternavasio<sup>1</sup>, E. Pagliaro<sup>2</sup>, M. Villa<sup>3</sup>, C. Agrappi<sup>4</sup>

<sup>1</sup>Internal Medicine Unit, Hospital Cuggiono ASST West Milan; <sup>2</sup>University of Milan; <sup>3</sup>Infectious Diseases Unit, Hospital Legnano ASST West Milan; <sup>4</sup>Microbiology Unit, Hospital Legnano ASST West Milan, Italy

*Scedosporium*: filamentous fungi ubiquitous opportunists group isolated from the ground and from contaminated waters. Notes are the two main species pathogenic to humans: 1) *Scedosporium apiospermum* and 2) *Scedosporium prolificans*, more virulent and more resistant to treatment.

**Case report:** Patient of 88 years suffering from myasthenia gravis, being treated for years with corticosteroids, is hospitalized at the Department of Internal Medicine of the Hospital of Cuggiono for the appearance of a swelling extended from the middle third of the left forefoot leg oedema of the subcutaneous tissues, the presence of nodular lesions painless and collected swelling deep between muscle planes. Making serial recordings with pus evacuation. Samples were sent to the Laboratory of Microbiology, in suspicion of necrotizing fasciitis and set broad-spectrum antibiotic treatment associated with antifungal.

**Materials and Methods:** Microscopic examination of the material grown lets you highlight septate hyphae are differentiated conidiophores the originators conidia oval individuals or in small groups. This helps identify the fungus as microscopically *S. apiospermum*.

**Conclusions:** The increased incidence of fungal infections, especially in immunocompromised patients in our case the diagnosis of *Scedosporium apiospermum* allowed to set the targeted therapy with voriconazole which, combined surgical aspiration of infectious outbreaks, has led to a clear resolution of the problematic fungal.

### A case of rhabdomyolysis

C. Cardamone<sup>1</sup>, P. Perna<sup>1</sup>, S. Raimo<sup>1</sup>, G. Gargiulo<sup>1</sup>, M. Triggiani<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna, AOU "San Giovanni di Dio e Ruggi d'Aragona", Salerno, Italy

**Introduction:** Rhabdomyolysis is a condition characterized by muscle necrosis that leads to the release of myoglobin into the bloodstream. The main complication is the acute renal failure, often requiring hemodialysis.

**Clinical case:** A 79-year-old male was admitted to a hospital with 10 days history of acute onset of calf pain, diffuse myalgia, lower limb weakness, impaired ambulation and gait disturbance. His medical history included hypertension treated with ACE inhibitors. Altered laboratory values included CPK 8572 U/L (reference range 0-170 U/L); LDH 1468 U/L (135-500 U/L) and myoglobin 10361 (10-92 ng/ml). Diagnosis of rhabdomyolysis was made and potential causes of myopathy were assessed. Muscular trauma and drugs as well as infectious and immunological disorders were excluded. Evaluation of thyroid function showed TSH 76.2 µIU/mL (0.4-4.8 uIU/mL), fT4 <0.3 ng/dL (1.71-2.8 ng/dL) and fT3 0.36 pg/mL (1.57-4.71 pg/mL) with high titers of anti-thyroid peroxidase antibodies. These data confirmed diagnosis of hypothyroidism-induced rhabdomyolysis. The patient started thyroid replacement therapy with l-thyroxine. His symptoms and laboratory abnormalities improved rapidly and resolved over the following 2 weeks.

**Conclusions:** This case underlines the need to evaluate thyroid function in patients with myopathy since hypothyroidism is a cause

of rhabdomyolysis that is promptly reverted by hormone replacement therapy.

### Un caso di ittero

A. Caruso<sup>1</sup>, N. Laganà<sup>1</sup>, D. La Rosa<sup>1</sup>, M.C. Giofrè<sup>1</sup>, S. Tomeo<sup>1</sup>, F. Napoli<sup>1</sup>, A. Saitta<sup>1</sup>, A.G. Versace<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Messina, Italy

**Introduzione:** Un signore di 55 anni giunge alla nostra osservazione per anoressia, astenia e ittero. Anamnesi familiare positiva per tiroidite di Hashimoto. Nega allergie e abuso di alcool. Diagnosi di RCU all'età di 45 anni. All'età di 45 anni ricovero per rhabdomiolisi. Si rilevano lesioni purpuriche al dorso e agli arti inferiori, epatosplenomegalia, non si apprezzano linfonodi.

**Iter diagnostico:** Esami I livello: Emocromo normale con conservata formula leucocitaria, Ves 82, lieve incremento di transaminasi, indici di colestasi e di citolisi. Ecografia epatica con disomogenea struttura epatica, non dilatazione vie biliari, assenza di calcoli. Esami II livello: Test di coombs diretto e indiretto negativo, markers di autoimmunità negativi tranne ANA 1/160 e anticorpi anticardiolipina, ridotti livelli di C3-C4, ipergammaglobulinemia, lieve positività titolo crioglobulinemico, markers epatici negativi. Colangiopancreatografia RM con normale pattern vie biliari intra - extraepatiche e atrofia pancreatica. Esami III livello: La biopsia epatica documenta pattern di epatite da interfaccia.

**Conclusioni:** Si pone diagnosi di probabile epatite autoimmune sulla base dei criteri dell'International Autoimmune Hepatitis Group. La vasculite e la rhabdomiolisi sono fenomeni autoimmunitari di accompagnamento.

**Terapia:** Si intraprende terapia combinata con prednisone e azatioprina. Si prosegue terapia di mantenimento per 3 anni e per altri 2 anni dopo remissione biochimica (normalizzazione livello transaminasi e IgG), si sospende in seguito a conferma alla biopsia epatica di remissione istologica.

### La tromboembolia polmonare nei pazienti con broncopneumopatia cronica ostruttiva. Formulazione del sospetto diagnostico

C. Catellani<sup>1</sup>, G. Prampolini<sup>1</sup>, P.G. Giuri<sup>1</sup>

<sup>1</sup>UOC di Medicina Interna, Ospedale S. Anna, Castelnovo Monti (RE), Italy

I pazienti con broncopneumopatia cronica ostruttiva (BPCO) che si presentano con dispnea acuta costituiscono un problema diagnostico e terapeutico rilevante, sia nella pratica ambulatoriale sia nella degenza ospedaliera. Le cause di riacutizzazione di BPCO sono spesso di difficile riconoscimento e in una percentuale significativa non ne viene evidenziata alcuna. La tromboembolia polmonare (TEP) è una delle possibili cause di peggioramento della dispnea, in particolare quando non è evidente una causa infettiva.

**Caso clinico:** Donna di 67 anni, fumatrice attiva, sovrappeso, affetta da BPCO bronchiectasica. DM tipo 2 e ipercolesterolemia. In trattamento da tre giorni con Levofloxacina per febbre e tosse produttiva. Giungeva in PS per dispnea ingrossante (insufficienza respiratoria normocapnica), ECG nei limiti. Obiettività indicativa di riacutizzazione bronchitica con D-Dimero elevato. Sottoposta ad angio-TC torace, si evidenziava TEP lobare-segmentaria destra associata ad aree di ground glass bilaterali e bronchiectasie. L'ECO doppler arti inferiori svelava una TVP della gemellare mediale sinistra. Veniva quindi trattata con anticoagulante e steroide, tuttavia è stato necessario prescrivere ossigenoterapia domiciliare.

**Conclusioni:** Una TEP non trattata comporta una probabilità di morte elevata che aumenta nei soggetti con copatologie, tra cui la BPCO, pertanto la formulazione del sospetto diagnostico, basato sui fattori di rischio e sui dati clinici di probabilità, diventa fondamentale per ridurre il numero di mancate diagnosi che comportano conseguenze potenzialmente devastanti.

### La vaccinazione: strumento imprescindibile nella prevenzione di gravi infezioni nei soggetti a rischio

C. Catellani<sup>1</sup>, G. Prampolini<sup>1</sup>, P.G. Giuri<sup>1</sup>

<sup>1</sup>UOC di Medicina Interna, Ospedale S. Anna, Castelnovo Monti (RE), Italy

La vaccinazione antinfluenzale ed antipneumococcica rappresentano il metodo più diffuso per immunizzare soggetti a rischio, ultra 65enni, diabetici, cardiopatici, pneumopatici, neuropatici, epatopatici cronici, nonché immunodepressi e asplenic.

**Caso clinico:** Uomo di 42 aa fumatore ed etilista attivo, affetto da ADK polmonare stadio IV. In trattamento chemioterapico di I linea con Cisplatino e Pemetrexed. Ricoverato c/o il nostro Reparto per insufficienza respiratoria globale. All'RX torace: opacamento superiore destro e segni di lisi ossea. In considerazione della severa compromissione degli scambi gassosi e degli alti valori di PCT e PCR, veniva sottoposto a NIV e a trattamento antibiotico empirico con Amoxi/Clav e Claritro associati a steroide. A 24h dal ricovero veniva comunicata dalla Micro la positività sia delle emocolture sia dell'antigene urinario allo *S. pneumoniae*. Si passava quindi ad Ampicillina più Macrolide. Nel corso della degenza abbiamo assistito a progressivo miglioramento clinico e il paziente è stato dimesso dopo 12 giorni senza necessità di ossigenoterapia. Una TC torace eseguita durante il ricovero documentava progressione della malattia neoplastica. Il paziente è deceduto tre settimane dopo la dimissione.

**Conclusioni:** La vaccinazione antinfluenzale e antipneumococcica dovrebbe essere presa sempre in considerazione nelle categorie a rischio in quanto unico strumento al momento disponibile per prevenire tali gravi infezioni. Spesso la vaccinazione antinfluenzale impedisce l'attivazione del processo infettivo alla base di una sovra infezione batterica.

### Un caso di fibrosi retroperitoneale o malattia di Ormond

G. Cheluci<sup>1</sup>, L. Mattei<sup>1</sup>, R. Moggi<sup>1</sup>

<sup>1</sup>U.O. Medicina Ospedale di Cavalese (TN), Italy

La fibrosi retroperitoneale è caratterizzata dalla formazione di tessuto fibroinfiammatorio nel retro peritoneo. Nel 75% dei casi è idiopatica nel 25% secondaria ad infezioni, emorragia, RT, neoplasie, malattie autoimmuni e vasculiti. Donna di 77 anni ricoverata per ipotesia, calo ponderale di 10 kg negli ultimi 3 mesi, dispnea da sforzo nell'ultimo mese. Tra gli accertamenti in prima istanza veniva documentata una TVP poplitea e della piccola safena, diverticolosi del sigma ed ernia jatale a colonscopia ed EGDS, una TC total body rilevava un'embolia polmonare. Urino ed emocolture negative, non vegetazioni ad indagine ecocardiografica, negativi marcatori neoplastici ed autoimmunità, ricerca CMV, EBV, Listeria, positività per quantiferon. Per diverticolite intraprendeva terapia con metronidazolo + ciprofloxacina poi sostituiti da meropenem sospeso dopo 15 giorni per persistenza di febbre costante, rialzo della PCR e PCT negativa. Una PET TAC evidenziava iperfissazione in addensamento tissutale anteriormente la tratto sacrale del rachide sino a livello lombare con lesione litica di L4, idronefrosi. Una RMN LS evidenziava quadro di spondilite veniva pertanto intrapresa terapia empirica per spondilite infettiva con vancomicina e levofloxacina senza beneficio bensì con comparsa di anemia, con necessità di emotrasfusione, ed elevata ferritina. Veniva sospesa la terapia antibiotica. Una biopsia del tessuto fibroso retroperitoneale risultava compatibile con fibrosi idiopatica intraprendeva quindi terapia steroidea con osteoprolassi con progressivo miglioramento del quadro clinico.

### Celiac disease presenting as fever of unknown origin in the adult: a case report

G. Cioni<sup>1</sup>, S. Baroncelli<sup>1</sup>, A. Crociani<sup>1</sup>, G. Zaccagnini<sup>1</sup>, G. De Marzi<sup>1</sup>, A. Mancini<sup>2</sup>, F. Luise<sup>2</sup>, E. Antonielli<sup>1</sup>, F. Pieralli<sup>2</sup>, C. Nozzoli<sup>1</sup>

<sup>1</sup>Medicina Interna Alta Complessità Assistenziale 1, AOU Careggi, Firenze;

<sup>2</sup>Sub Intensiva di Emergenza e del Trauma, Aou Careggi, Firenze, Italy

**Introduction:** Coeliac disease is a lifelong, chronic, disorder affecting subjects at any age and presenting with a broad spectrum of symptoms; in several cases, extraintestinal symptoms are the only clinical manifestations or occur in conjunction with gastrointestinal symptoms.

**Case report:** We presented the case of a 47-year-old male, admitted to the Internal Medicine Department of our Hospital, after a further episode of fever with chill, associated with headache and malaise. The patient had suffered from episodes of fever, which

appeared not cyclical, with long periods between one episode and the next one, in which the patient reported complete well-being, for about 20 years. We excluded malignancy, haematological disorders, autoimmune diseases, and inflammatory bowel disease; serological and culture tests were negative for common infectious diseases and parasitosis. A previous celiac screen was negative. Gastrointestinal symptoms were absent. Inflammatory markers were elevated [erythrocyte sedimentation rate (ESR)=48 mm/hr, C-reactive protein (CRP)=185 mg/L]. Plasma levels of folic acid and B12 vitamin were significantly lower than the minimum normal range (1.7 ng/mL and <60 pg/mL, respectively).

**Results:** Colonoscopy demonstrated villous blunting, with biopsies consistent with a diffuse chronic inflammation in the lamina propria and significant intraepithelial lymphocytosis (MARS II).

**Discussion:** He was started on a gluten-free diet and after a month from the discharge he was afebrile; inflammatory markers were significantly lower and haemoglobin levels were mildly increased.

### Goals defining therapy for primary immune thrombocytopenia in adults

L. Cirasino<sup>1</sup>, S. Semeraro<sup>1</sup>

<sup>1</sup>Unità Operativa di Medicina, Ospedale di Ostuni (BR), ASL BR, Italy

**Background and Work's finality:** Discordances existing between the two most influential guidelines on the treatment of immune thrombocytopenia, the 2010 International Consensus Report and the 2011 American Society of Hematology guideline, continue to be reflected by the heterogeneity of clinical practice of the physicians who treat this disease. Aimed at overcoming these discordances, we hypothesized that they could be ascribed to non-shared treatment goals.

**Methods:** We classify the indications for and goals of the various possible treatments available for adults with primary immune thrombocytopenia according to the line of treatment and the phase of disease.

**Results:** The resulting classification is useful for recognizing the appropriateness of a chosen treatment in individual patients.

**Conclusions:** The classification proposed here could constitute the basis for greater agreement among future guidelines and, in the meanwhile, could help less expert physicians recognize the appropriateness of a treatment to choose in the single patient.

### Non tutte le demenze sono "comuni": un caso di verosimile malattia di Creutzfeldt-Jakob

F. Costanzo<sup>1</sup>, M. Bergonzi<sup>1</sup>, L. Porretti<sup>2</sup>, G. Borutti<sup>3</sup>, C.F. Arbasino<sup>3</sup>, L. Magnani<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale di Voghera, ASST Pavia; <sup>2</sup>S.C. Medicina Generale, Dipartimento Area Medica, Fondazione IRCCS Policlinico S. Matteo di Pavia; <sup>3</sup>Neurologia, Ospedale di Voghera, ASST Pavia, Italy

Donna 76 anni. APR: isterectomia, emorroidectomia, poliposi nasale, IRC, ip. arteriosa, pregresso ictus ischemico, ipoacusia. APP: da agosto 2016 riferita confusione mentale; settembre 2016 accesso in PS per vomito e ricovero per "IRA su IRC" (TC encefalo negativa; v. Neurologica: "sospetta encefalopatia metabolica"). All'ingresso: elevazione indici di flogosi in focolaio BPN, ipernatremia ed acidosi metabolica. Dopo correzione pH, elettroliti e tp. antibiotica miglioramento degli es. ematochimici, ma persistenza di confusione e irritabilità. Rivalutata da Neurologo con indicazione a valutazione c/o centro UVA. Successivo ulteriore peggioramento dei sintomi e comparsa di mioclonie. Eseguiti pertanto: EEG (instabilità del ritmo di fondo disturbato da spike muscolari e scarsa collaborazione) e prelievo liquorale (moderato danno di barriera con aumento delle proteine senza cellularità significativa; es. virologici negativi). In attesa esito ricerca anticorpi anti-SNC, prot. 14.3.3 e TAU, iniziata tp. steroidea nel sospetto di "encefalite limbica disimmune" con iniziale buona risposta clinica. Richiesta RMN encefalo. L'11/10/16 giungevano esiti proteina TAU (1066 pg/ml; v.n. <550), proteina 14.3.3 (PRESENTE) e ab anti-SNC (NEGATIVI). Pz. Trasferita in Neurologia per ultimare gli accertamenti in sospetta encefalopatia spongiforme. Caso scelto poiché indicativo dell'importanza di una corretta diagnosi differenziale in caso di presentazione atipica di

una patologia comune, come la m. di Alzheimer, in corso di ricovero per acuzie di natura internistica.

### Febbre di incerta origine: una vasculite "atipica"?

E. Cristaldi<sup>1</sup>, F. Giacalone<sup>1</sup>, A. Giudice<sup>2</sup>, O. Grasso<sup>1</sup>, S. Intraiva<sup>1</sup>, S. Marturana<sup>1</sup>, S. Platania<sup>1</sup>, S. Pappalardo<sup>2</sup>, R. Risicato<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, P.O. Augusta, ASP Siracusa; <sup>2</sup>Uoc Medicina Nucleare, P.O. Umberto I, ASP Siracusa, Italy

**Premesse e Scopo dello studio:** L'arterite di Takayasu è una malattia infiammatoria cronica che interessa principalmente l'aorta e le sue diramazioni principali, le coronarie, e le polmonari. L'incidenza è stimata in 2.6 casi/milione abitanti/anno. Le fasce maggiormente colpite vanno dai 10 ai 30 anni, con un rapporto femmine/maschi di circa 4:1. Sembra sia scatenata da un'infezione che in presenza di una predisposizione genetica, favorisce il processo infiammatorio vascolare.

**Case report:** Donna di 73 anni, giunta alla nostra osservazione a seguito di ricorrenti episodi febbrili, negli ultimi tre mesi. Non era stato individuato l'agente eziologico, e gli episodi si susseguivano con frequenza settimanale. Al ricovero, dopo l'esame clinico, venivano eseguiti esami ematici e strumentali (RX, U.S., TC, esami endoscopici), venivano eseguite ripetute emocolture, test sierologici completi con indagini virologiche, oncologiche, ed autoimmunità. La i.d.r. di Mantoux risultava debolmente positiva, il Quantiferon era negativo. L'EGdscozia evidenziava una gastrite cronica positiva per H.Pylori (HP). Per il susseguirsi degli episodi febbrili, controllati dalla somministrazione di steroidi, si procedeva a completare l'iter per febbre di incerta origine, con una PET. Questa evidenziava la tipica deposizione di tracciante in tutta l'aorta ma anche nelle succlavie e nelle arterie degli arti inferiori fino alle pedie.

**Conclusioni:** Il caso presenta caratteri peculiari: età della paziente, positività per contatto con BK ed infezione da HP, estensione della lesione vasculitica. Si trae spunto dal caso singolare per rivedere i percorsi diagnostici della F.UO.

### La Salvia hispanica nel trattamento dell'acne

M. D'Avino<sup>1</sup>, G. Tenore<sup>2</sup>, F. Cusano<sup>3</sup>, G. Buonomo<sup>4</sup>, C. Simone<sup>4</sup>, A. Montefusco<sup>4</sup>, F. Guerra<sup>5</sup>, G. Caruso<sup>6</sup>, G. Uomo<sup>1</sup>, E. Novellino<sup>7</sup>

<sup>1</sup>UOC Medicina Interna 3, Dipartimento Medico Polispecialistico, AORN A. Cardarelli, Napoli; <sup>2</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II"; <sup>3</sup>UOC di Dermatologia, AO G. Rummo, Benevento; <sup>4</sup>Cooperativa Samnium Medica, Benevento; <sup>5</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II"; <sup>6</sup>UOC Pronto Soccorso/OBI AORN A. Cardarelli, Napoli; <sup>7</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II", Italy

**Premesse e Scopo dello studio:** L'acne è una dermatosi recidivante, multifattoriale, tipica degli adolescenti caratterizzata da comedoni aperti e chiusi, papule, pustole e noduli, localizzati nelle aree seborroiche di volto, tronco e torace, per l'occlusione del follicolo pilosebaceo e l'iperattività ed iperesponsività della ghiandola sebacea. Gli Omega-3 e 6, sono indispensabili per mantenere la pelle in salute. Recenti studi dimostrano che una dieta ricca di Omega-3 e 6, ha effetti benefici sull'acne agendo sul sebo cutaneo, ristabilendo le percentuali di acidi grassi ideali per una funzionalità e un'integrità ottimali della struttura epiteliale. La Salvia Hispanica-Chia, che contiene il 64% di Omega 3 e Omega 6 con acido alfa linoleico e bioflavonoidi, rappresenta una fonte di acidi grassi essenziali, sana e senza problemi di gusto, odore, tossicità e irradimento.

**Materiali e Metodi:** Sono stati arruolati 26 pazienti, 18 donne e 8 uomini, di età compresa tra 19 e 22 anni, ai quali sono state somministrate due capsule die di semi di Chia, da 400 mg, per 60 giorni.

**Risultati:** Abbiamo fotografato le lesioni più evidenti a tempo 0 e a 60gg. Trascorso tale periodo, è stata valutata visivamente l'estensione della lesione acneica, misurata in centimetri, di cui è stata riscontrata una significativa regressione del 22% in media, nonché il miglioramento della levigatezza e omogeneità cutanea.

**Conclusioni:** I nostri dati suggeriscono che l'assunzione di una formulazione farmaceutica in capsule, di semi di Chia, diminuisce molto chiaramente l'intensità delle manifestazioni acneiche.

### La Salvia hispanica nel trattamento della psoriasi

M. D'Avino<sup>1</sup>, G. Tenore<sup>2</sup>, F. Cusano<sup>3</sup>, G. Buonomo<sup>4</sup>, C. Simone<sup>4</sup>, A. Montefusco<sup>4</sup>, F. Guerra<sup>5</sup>, G. Caruso<sup>6</sup>, G. Uomo<sup>1</sup>, E. Novellino<sup>7</sup>

<sup>1</sup>UOC Medicina Interna 3, Dipartimento Medico Polispecialistico, AORN A. Cardarelli, Napoli; <sup>2</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II"; <sup>3</sup>UOC di Dermatologia, AO G. Rummo, Benevento; <sup>4</sup>Cooperativa Samnium Medica, Benevento; <sup>5</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II"; <sup>6</sup>UOC Pronto Soccorso/OBI AORN A. Cardarelli, Napoli; <sup>7</sup>Dipartimento di Farmacia, Università degli Studi di Napoli "Federico II", Italy

**Premesse e Scopo dello studio:** La psoriasi è un'eruzione desquamativa, infiammatoria, cronica con iperproliferazione dei cheratinociti. Recenti studi dimostrano che una dieta ricca di Omega-3 e 6, ha effetti benefici sulla psoriasi, dove la composizione del sebo cutaneo subisce uno squilibrio strutturo-funzionale (1,2). Gli Omega-3 e 6 aiutano a ristabilire le percentuali gli acidi grassi ideali per la funzionalità della struttura epiteliale. La Salvia Hispanica-Chia ha il 64% di Omega 3 e Omega 6 con ALA (acido alfa linoleico) e bioflavonoidi. È una fonte di acidi grassi essenziali, sana e priva di gusto, odore, tossicità e irradimento.

**Materiali e Metodi:** Abbiamo arruolato 25 pazienti (15 uomini e 10 donne), di età compresa tra i 22 e i 46 anni, ai quali sono state somministrate due capsule die di semi di Chia, da 400 mg, per 60 giorni. Abbiamo fotografato le lesioni più evidenti a tempo 0 e a 90 gg. Abbiamo utilizzato il test "t di student" per valutare il valore medio di VAS (prurito) e di PASI, prima e dopo la cura.

**Risultati:** I dati hanno mostrato una diminuzione media dei parametri VAS (prurito) del 63,1% e di PASI (estensione della lesione psoriasica) del 40,9% (VAS Prurito, PRIMA: media=5.2, Ds=2.1, DOPO: media=1.9, Ds=1.7; p<0.001, CI [-4.0, -2.5]; PASI, PRIMA: media=3.1, Ds=2.2, DOPO: media=1.8, Ds=1.8; p<0.001, CI [-1.8, -0.8])

**Conclusioni:** I nostri dati suggeriscono che l'assunzione di una formulazione farmaceutica in capsule, di semi di Chia, diminuisce molto chiaramente l'intensità dei sintomi e delle lesioni cutanee della psoriasi.

### Artrite reumatoide complicata da sindrome nefrosica: descrizione di un caso clinico trattato con farmaci biologici

T. D'Errico<sup>1</sup>, C. Ambrosca<sup>1</sup>, M. Variiale<sup>1</sup>, S. Carbone<sup>1</sup>, G. Italiano<sup>2</sup>, A. Maffettone<sup>3</sup>, M. Visconti<sup>4</sup>, S. Tassinario<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, DH Reumatologia, P.O. "S.M.D.P. Degli Incurabili, ASL Napoli 1 Centro; <sup>2</sup>UOC Medicina Interna, Azienda Ospedaliera "S. Anna e San Sebastiano", Caserta; <sup>3</sup>UOC Medicina Interna, Ospedale "Vincenzo Monaldi", Azienda Dei Colli, Napoli; <sup>4</sup>Primario Emerito ASL Napoli 1 Centro, Italy

La terapia dell'AR prevede l'uso dei farmaci biotecnologici quando si realizza l'inefficacia dei DMARDs tradizionali; la valutazione clinica e il DAS 28 (Disease Activity Score), forniscono i dati necessari per la rivalutazione terapeutica. Quando i biologici utilizzati in prima linea risultano inefficaci o si realizza un evento avverso si può fare uno switch o uno swap verso un altro biologico.

**Caso clinico:** Nel febbraio 2012 è giunta alla nostra osservazione una donna di 54 anni, che già presentava una nefropatia rilevata occasionalmente (modesta proteinuria), associata ad un reumatismo palindromico insorto da circa 4 anni, con positività di RA test e degli Anti Citrullina; successivamente ha realizzato poliartrite simmetrica e persistente e moderata proteinuria. Posta in trattamento con methotressato 15 e poi 20 mg/settimana, ha realizzato nelle 16 settimane successive un modesto miglioramento, quindi è stato aggiunto l'Etanercept; l'inefficacia di questa associazione e il peggioramento della condizione renale (glomerulonefrite membranosa all'istologia) ha suggerito l'impiego di rituximab che ha realizzato una graduale remissione delle manifestazioni artriche e un progressivo miglioramento della proteinuria.

**Conclusioni:** Il caso ha evidenziato l'efficacia di rituximab sia per la condizione articolare che per quella renale, risultando una valida e sicura opzione terapeutica.

### Bone fragility of cancer patient: prevention and treatment

M. Danova<sup>1</sup>, M. Torchio<sup>1,2</sup>, S. Preerutti<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna; <sup>2</sup>U.O.S. Oncologia Medica, Ospedale Civile di Vigevano, ASST di Pavia, Italy

Osteoporosis is a common condition and a risk factor for spontaneous fracture. Anticancer therapies used in breast and prostate cancer patients (pts) (aromatase inhibitors (AIs), chemotherapy (CT), glucocorticoids and analogs of the pituitary gonadotropins), may enhance bone remodeling, inducing significant changes in bone turnover besides BMD (bone mass density) and fracture risk. With increased longevity in cancer pts, it is essential to prevent clinical and metabolic effects on bone due to anticancer therapies. For pts with surgical or medical castration guidelines recommend adequate calcium, vitamin D intake, regular physical activity, early assessment of osteoporotic risk of osteoporosis throughout early bone density scan. In pts with previous osteopenia or osteoporosis, the additional conditions that worsen the bone health (such as vitamin D deficiency, hyperparathyroidism, hyperthyroidism and hypercalciuria) should also be considered in order to indicate a bisphosphonate or denosumab. Compared to placebo, denosumab, a monoclonal antibody of human RANK, acts just like OPG preventing activation of osteoclasts, reducing bone resorption and risk of non-vertebral fracture but increased the risk of SAE related to infection in the postmenopausal women with osteoporosis or low BMD. To date there hasn't a comparison between bisphosphonate and denosumab, which are continued for the period of anticancer therapy.

#### Trattamento ed empowerment del paziente con scompenso cardiaco

S. Dassi<sup>1</sup>, R. Turconi<sup>1</sup>, S.A. Berra<sup>1</sup>

<sup>1</sup>UO Medicina 1, ASST Rhodense, Garbagnate Milanese (MI), Italy

Lo scompenso cardiocircolatorio costituisce la principale causa di ricovero nei reparti di medicina. Il paziente dimesso dopo miglioramento clinico è destinato a subire un nuovo ricovero entro il primo anno nel 50% dei casi. Per questo appare necessario prevedere alla dimissione un percorso in grado di identificare i pazienti a più alto rischio di instabilizzazione, stabilire un follow up a breve termine presso un ambulatorio dedicato, attivare un servizio di telemedicina e organizzare un percorso di empowerment del nucleo familiare (paziente, care givers, Medico di Medicina Generale) come base fondante di continuità assistenziale. Il progetto empowerment si propone di: Migliorare la prognosi dei pazienti con scompenso cardiaco in termini di miglioramento della qualità della vita, aumento della sopravvivenza, riduzione dei ricoveri ospedalieri; Ridurre la durata dei ricoveri ospedalieri; Garantire la continuità assistenziale ospedale-territorio; Aumentare la consapevolezza di malattia da parte del paziente; Addestrare il care giver; Ridurre il carico dello scompenso cardiaco in termini di spesa sanitaria e peso sociale. La sfida è quella di sviluppare percorsi diagnostico terapeutici assistenziali arricchiti di strumenti di educazione, informazione e responsabilizzazione del paziente rendendolo in grado di programmare i propri controlli e riconoscere tempestivamente segni e sintomi di scompenso clinico con l'obiettivo di verificare se l'attivazione di un percorso strutturato dalla dimissione al domicilio possa ottenere un miglioramento dell'outcome della patologia.

#### Ictus ischemico del circolo cerebrale posteriore da dissecazione dell'arteria vertebrale in corso di fisioterapia. Caso clinico

P. De Campora<sup>1</sup>, A. Fontanella<sup>2</sup>, P. Di Micco<sup>2</sup>, L. Fontanella<sup>2</sup>, R. Sangiuolo<sup>1</sup>

<sup>1</sup>UOC Cardiologia-UTIC, Ospedale Fatebenefratelli, Napoli; <sup>2</sup>UOC Medicina Interna, Ospedale Fatebenefratelli, Napoli, Italy

Nella letteratura scientifica troviamo diverse pubblicazioni riguardanti l'argomento delle dissecazioni arteriose verificatesi in corso di *energiche* sedute di fisioterapia. Il caso clinico in questione concerne la vicenda di un giovane 35 enne inviato dal medico curante al nostro ambulatorio di Cardiologia in seguito alla comparsa, dopo una seduta di fisioterapia, di sindrome vertiginosa con difficoltà nella deambulazione. L'esame con ultrasuoni dei

tronchi sovra-aortici evidenziò un flusso anomalo ad "elevate resistenze" nella porzione distale cervicale dell'Arteria Vertebrale sinistra. Assenti alterazioni a carico del restante circolo epiaortico. L'approfondimento con ecografia trans-cranica consentì di osservare la dissecazione in più punti del tratto intracranico dello stesso vaso che, all'analisi con metodica Doppler, mostrava un flusso di bassa ampiezza rispetto alla arteria vertebrale contro-laterale. Nulla a carico del circolo cerebellare. L'esame TC cranico con mezzo di contrasto confermò l'esito infartuale a carico del territorio dell'Arteria Vertebrale sinistra. Il successivo follow up ecografico ha consentito di apprezzare solo un parcellare miglioramento dell'emodinamica del vaso interessato dalla dissecazione.

#### Aspetti ecografici differenziali tra ictus cardio-embolico ed aterosclerotico. Il ruolo della ecografia trans-cranica

P. De Campora<sup>1</sup>, A. Fontanella<sup>2</sup>, P. Di Micco<sup>2</sup>, G. Malferrari<sup>3</sup>, R. Sangiuolo<sup>1</sup>

<sup>1</sup>UOC Cardiologia-UTIC, Ospedale Fatebenefratelli, Napoli; <sup>2</sup>UOC Medicina Interna, Ospedale Fatebenefratelli, Napoli; <sup>3</sup>UOC Neurologia, Arcispedale S. Maria Nuova, Reggio Emilia, Italy

Il venti per cento degli incidenti cerebro-vascolari risulta criptogenetico. Questo determina una maggior esposizione dei pazienti verso una recidiva rispetto a coloro in cui è possibile identificarne l'eziologia. La diagnostica radiologica, nelle fasi acute dell'ictus, ha lo scopo di escludere la forma più grave di ictus, l'emorragia cerebrale. Nel nostro Dipartimento, l'apporto sinergico della ecografia dei vasi epiaortici e transcranica consente, soprattutto nella fase acuta, di poter identificare i vasi interessati dall'occlusione trombotica, di porre una diagnosi differenziale tra ictus ischemici e forme cardioemboliche, sulla base della compromissione parietale assente in queste ultime. Negli eventi ischemici, difatti, il *primum movens* è rappresentato dalla compromissione morfologica del vaso, aspetto dovuto all'azione lesiva sull'endotelio da parte di vari fattori di rischio. Tale alterazione, definita dagli autori anglosassoni "Straight Shape", precede di decenni la trombosi arteriosa. Nelle forme cardioemboliche, diversamente, è caratteristico il riscontro, particolarmente quando risulta coinvolta l'arteria cerebrale media, del pattern ad "albero potato" con una conservata morfologia del vaso. In conclusione, risulta fondamentale la gestione "in team" di patologie complesse quali gli incidenti cardio-cerebro-vascolari. Opportuno, quindi, un approccio diagnostico multidisciplinare tra le metodiche neuro-radiologiche e la ecografia vascolare al fine di ridurre il numero di eventi criptogenetici.

#### Multifocal idiopathic polymyositis in an immunocompetent adult patient

G. De Marzi<sup>1</sup>, L. Corbo<sup>1</sup>, C. Florenzi<sup>1</sup>, E. Blasi<sup>1</sup>, G. Zaccagnini<sup>1</sup>, E. Antonielli<sup>1</sup>, L. Fedeli<sup>1</sup>, O. Para<sup>1</sup>, F. Pieralli<sup>1</sup>, G. De Marzi<sup>1</sup>

<sup>1</sup>AOU Careggi, Medicina per la Complessità Assistenziale 1, Firenze, Italy

A 41-year-old man was referred to the hospital for progressive and symmetric proximal muscle weakness, especially of the upper and lower arms, fever, fatigue, hoarseness and sore throat. He had no significant diseases. Laboratory tests showed elevated creatine phosphokinase and transaminases, thrombocytopenia and elevation of C-reactive protein levels. Hemogasanalysys, chest radiography, echocardiography were normal. Otorhinolaryngology evaluation revealed hypertrophic tonsils and mouth and laryngeal and pharyngeal widespread hyperemia. A clinical diagnosis of polymyositis was made and confirmed by Electromyography. The patient was treated with steroids with progressive resolution of symptoms and normalization of creatine kinase. A total body Positron Emission Tomography and Computed Tomography scan was made to exclude paraneoplastic myositis and interstitial lung disease. There were no abnormal findings on serology for major hepatotropic virus, HIV, Parvovirus and Antistreptolysin O titer. Antibody study found ANA positivity and no others specific myositis antibodies. Muscle biopsy found normal morphology of the muscle fibers with residual signs of rhabdomyolysis. There were no inflam-

matory signs of accumulation. No causative agent was then identified. Polymyositis is a rare disease with incidence rates at about 1 per 100,000 people annually. It belongs to the category of connective tissue and it's a disease of unknown pathogenesis and autoimmune etiology, characterized by an inflammatory process in charge of the striated muscles.

### Prevalence and characteristics of anemia in an Internal Medicine setting

A. Dei<sup>1</sup>, E. Grifoni<sup>1</sup>, F. Dainelli<sup>1</sup>, S. Di Martino<sup>1</sup>, A. Giordano<sup>1</sup>, G.S. Murgida<sup>1</sup>, F. Praticchizzo<sup>1</sup>, G. Razzolini<sup>1</sup>, M. Romagnoli<sup>1</sup>, E. Schipani<sup>1</sup>, I. Signorini<sup>1</sup>, S. Cinotti<sup>1</sup>

<sup>1</sup>Medicina Interna 2, Ospedale S. Giuseppe, Empoli, Italy

**Introduction and Aims:** Anemia [i.e. hemoglobin (Hb) <12g/dL in women, <13g/dL in men] is a risk factor for adverse patient outcomes. However, except when being the main reason for hospitalization, it is an often underestimated condition in acutely ill medical patients. Aim of this study was to evaluate prevalence and characteristics of anemia in medical inpatients.

**Materials and Methods:** Consecutive patients, admitted to our Internal Medicine unit from October 2016 to January 2017, with Hb levels satisfying criteria for anemia, were enrolled. Laboratory characterization, including blood count, reticulocyte, iron metabolism, folate, vitamin B12, hemolytic, inflammatory, thyroid, and renal function markers, was performed. Patients clinical data were collected.

**Results:** Among 220 patients admitted during the specified period, 83(37.7%) were enrolled [54.2% females; median age 83(34-97) yrs]. Anemia was the reason for hospitalization in 7.2% of patients, whereas in the other 92.8% the most common reasons were: pneumonia, COPD exacerbation, heart failure, sepsis, and stroke, with anemia as comorbidity. Anemia was mild in 60.2% of patients, normocytic in 75.9%; chronic kidney disease, inflammation and multifactorial origin were the main causes. Vitamine B12, folate, and iron deficiency were found in 14.5%, 7.2%, and 3.6% of patients, respectively.

**Conclusions:** Mild anemia is frequent in medical inpatients. A simple and not expensive laboratory evaluation may be useful to prompt specific treatment, in order to avoid severe anemia, transfusion requirement, and adverse clinical outcomes.

### Uno strano addome acuto

S. Di Carlo<sup>1</sup>, C. Tana<sup>2</sup>

<sup>1</sup>UOC Geriatria, Ospedale Civile "S. Spirito" Pescara; <sup>2</sup>UOC Medicina Interna, PO di Guastalla (RE), Italy

**Introduzione:** La spondilodiscite (SD) è un processo flogistico dell'unità vertebro-discale che può interessare tutti i tratti della colonna vertebrale ed anche le strutture anatomiche contigue (meningi, midollo, nervi e muscoli).

**Caso clinico:** Pz di aa 45, eritreo, non parla italiano ne inglese, ricoverato in Mal. Infettive. Da 3 mesi presenta febbre, dolore addominale e lombare trattati con paracetamolo e FANS. In terapia empirica con Piperacillina/Taz e Levofloxacina. Es. laboratoristici: VES e PCR elevati con PCT negativa. Emocolture ed urinocoltura negative. Es. strumentali: RX rachide L-S negativo. RX torace negativo. RX Addome negativi. Eco addome negativa. Durante il turno di guardia notturno per la comparsa di intenso dolore in fossa iliaca sn e nel sospetto di un addome acuto si richiedeva una TC addome urgente con mdc. La TC documentava una spondilodiscite con marcata osteolisi dei corpi vertebrali di L3 e L4 ed ascessi bilaterali a livello degli ileo-psoas. Mantoux e Quantiferon +, nuove emocolture + per BK. Posta dunque diagnosi di SD tuberculare ed avviata terapia specifica. Eseguita visita ortopedica con prescrizione di busto. Pz attualmente in follow-up infettivologico.

**Conclusioni:** La clinica della SD è varia e subdola e la diagnosi difficile e spesso tardiva. Nei paesi occidentali l'incidenza della SD tuberculare è in aumento per via dell'intensa immigrazione dai paesi in via di sviluppo. Diagnosi precoce e terapia mirata migliorano i risultati clinici e riducono la probabilità di complicanze neurologiche.

### Colite tossica da farmaci: un capitolo in continuo divenire

S. Di Fabio<sup>1</sup>, S. De Gennaro<sup>1</sup>, L. De Marco<sup>2</sup>, L. Finardi<sup>1</sup>, S. Musini<sup>1</sup>, P. Montanari<sup>1</sup>

<sup>1</sup>Ospedale E. Franchini Montecchio Emilia, <sup>2</sup>ASMN Reggio Emilia, Italy

S.L. giunge per persistenza di diarrea muco-sanguinolenta e calo ponderale. Era stata già eseguita colonscopia che documentava un quadro di severa pancolite ed ileite in corso di definizione diagnostica. Anamnesi positiva per: cardiopatia ipertensiva, FA in TAO, polimialgia reumatica, Diabete mellito e recente diagnosi di Parkinsonismo. Nel sospetto di malattia infiammatoria intestinale potenziamo la terapia steroidea con netto miglioramento clinico. Viene effettuato il primo tentativo di riduzione della terapia steroidea con nuovo peggioramento clinico. Giunge anche l'esito dell'istologia che documenta un pattern di colite cronica attiva molto estesa compatibile con un danno da farmaci. Tra i farmaci assunti dal paziente l'unico sospetto, perché recentemente introdotto, è il Sinemet. Al momento non sono presenti in letteratura molti dati di correlazione tra il farmaco sospettato e la colite tossica. Nel dubbio, il farmaco è stato sospeso. Il paziente è dimesso con scallaggio progressivo della terapia steroidea nei quindici giorni successivi; viene rivalutato in ambulatorio a un mese e a sei mesi e non viene segnalata alcuna recidiva. **Conclusioni** i dati clinici e istologici a disposizione ci inducono a pensare all'esistenza di correlazione tra il severo quadro di colite tossica e la recente introduzione del Levodopa/carbidopa. Il problema della colite da farmaci è ancora aperto e probabilmente l'elenco dei farmaci imputati è ancora in divenire. Questo è molto importante soprattutto nei pazienti anziani fragili con polifarmacoterapia.

### L'iperglicemia come risposta metabolica allo stress e complicanze ad essa relate nel paziente geriatrico con e senza diabete ricoverato in un reparto di Chirurgia Ortopedica

R. Di Luzio<sup>1</sup>, C. Caputo<sup>1</sup>, F. Lari<sup>1</sup>, G. Bragagni<sup>1</sup>, G. Bianchi<sup>2</sup>

<sup>1</sup>UO Medicina della Pianura, AUSL Bologna; <sup>2</sup>DIMEC, AOU Policlinico Sant'Orsola Malpighi, Bologna, Italy

L'iperglicemia nel paziente ricoverato in chirurgia ortopedica può essere una manifestazione di diabete sottostante, misconosciuto o una risposta metabolica allo stress. L'iperglicemia e lo stress legati al trauma e all'intervento influenzano negativamente l'outcome dei pazienti aumentando il rischio di complicanze, la durata del ricovero e la mortalità a breve termine.

**Scopo dello studio:** Individuare l'iperglicemia da stress e stabilire la sua relazione con la comparsa di complicanze durante il ricovero, confrontando gli effetti di due diversi schemi di terapia insulinica. 166 pazienti di età >65 anni sono stati suddivisi in due gruppi in base alla tipologia di somministrazione insulinica utilizzata (gruppo A *basal-bolus*, gruppo B *sliding scale*). Per ognuno è stata calcolata la *relative hyperglycaemia* e *Hyperglycaemic Index*

**Conclusioni:** L'età mediana era 78 anni (65-95). 55 di 99 pazienti sono risultati positivi per iperglicemia da stress, per i quali si è dimostrata associazione positiva con l'aumentato rischio di complicanze ( $X^2=43,067$ ;  $P<0,001$ ), soprattutto infettive (infezioni sistemiche 58,2%, infezioni locali 3,6%). Inoltre il metodo di somministrazione insulinica *sliding scale* ha mostrato associazione significativa con l'aumentato sviluppo di complicanze ( $X^2=18,185$ ;  $P<0,001$ ). L'identificazione precoce dell'iperglicemia da stress è possibile e raccomandabile. L'applicazione di un sistema standardizzato di somministrazione insulinica di tipo *basal-bolus* si è dimostrato essere protettivo per l'insorgenza di complicanze senza incrementare il rischio di ipoglicemie.

### Difficult choice in a case of malabsorption of levothyroxine

G. Di Monda<sup>1</sup>, R. Muscherà<sup>1</sup>, A. Ilardi<sup>1</sup>, F. Scavuzzo<sup>2</sup>, V. Novizio<sup>2</sup>, F. Capasso<sup>1</sup>, D. Serino<sup>2</sup>, M. D'avino<sup>1</sup>, E. Anastasio<sup>1</sup>, G. Uomo<sup>1</sup>

<sup>1</sup>U.O.S.C. Medicina 3, A.O.R.N. Cardarelli, Napoli; <sup>2</sup>Servizio di Endocrinologia, A.O.R.N. Cardarelli, Napoli, Italy

LT4 oral absorption is influenced by food, gastric acidity, drugs, gastrointestinal diseases, bioequivalent preparations. The formulation choice can generate clinic complications, due not only to

Hypothyroidism. Female 39 B.M.I. 30 thyroidectomized on therapy with LT4 175 µg/die, good functional compensation for six months, then worsened. They improved LT4 to 400 µg/die +LT3 20 µg tid, TSH reached 250 µIU/ml. They excluded malabsorption causes. They performed LT4 test with 500 µg per os with FT4 feedback below normal range. Because of low functional compensation, they decided for e.v. therapy with LT4 (1/3 out of 500 µg vial diluted in 250 ml of saline solution, every other day). After one month, following intolerance problems, modality and running time of the therapy, they opted for Porth-A-Cat insertion. After two months, they achieved the TSH functional compensation to 2,9 mIU/ml. After five months, the patient reported fever and recovered for *Enterobacter Cloacae* and *Pseudomonas Species sepsis*, right atrium vegetation (4× 1,7 cm) on venous catheter. We performed anticoagulant and antibiotic therapy plus soft capsules of LT4 400 µg/die along with specific nutrition and probiotic, then proceeded with Porth-A-Cath removal and 125 µg/die LT4 therapy with soft capsules until the TSH 0,2 mIU/ml. The correction of pathophysiological conditions that influence the kinetic absorption of LT4 and the use of more effective formulations (soft capsules) should be pursued to avoid severe clinic complications.

### I "sentieri" del sorriso: la best practice in psico-oncologia

G. Di Santo<sup>1</sup>, L. Ruocco<sup>2</sup>, A.M. Iannotta<sup>1</sup>, G. Ranaldo<sup>1</sup>, M. Di Resta<sup>3</sup>, G. Saladino<sup>4</sup>

<sup>1</sup>UOC di Medicina Interna e Specialistica, P.O. "Sant'Alfonso Maria de' Liguori", Sant'Agata De' Goti (BN); <sup>2</sup>Corso di Laurea in Scienze Infermieristiche, Università degli Studi "Federico II", Napoli; <sup>3</sup>Direzione Sanitaria, Casa di Cura "Alma Mater S.p.A. - Villa Camaldoli", Napoli, <sup>4</sup>ASL Caserta, Italy

Oggetto di discussione del seguente elaborato saranno tutte le metodologie mediante le quali il paziente oncologico riesce a superare le difficoltà che la patologia riserva, trattato da un team multidisciplinare ove le figure del medico e dell'infermiere rivestono un ruolo fondamentale, diventando punti di riferimento con cui condividere successi e fallimenti. Il ruolo cardine è svolto dal binomio: Psico-oncologia, disciplina che insegna ad affrontare tutte le fasi e le alterazioni della personalità che il paziente si troverà a fronteggiare nel corso della sua malattia; Coping, modalità cognitivo-comportamentale che modula, a seconda del "coping style" acquisito inconsciamente dal paziente, la propria risposta ad ogni situazione stressante generatrice di turbe emotive. Da tale connubio nasce l'elaborazione di percorsi di "Best practices", ovvero di tutte quelle tecniche che conducono il paziente ad una condizione di ben-essere che vada oltre la condizione fisica, mirando infatti ad una serenità d'animo, condizione necessaria e predisponente al successo terapeutico. Tra queste ricordiamo: la Terapia del sorriso, la Musicoterapia e la Tangoterapia; trattamenti ove il corpo diventa un catalizzatore di emozioni mediante creatività e libertà di espressione grazie all'aumento della sintesi di endorfine, encefaline e degli "ormoni della vita". Infine saranno approfondite tematiche di Dermatologia oncologica ed Estetica oncologica, che offrono trattamenti integrativi per la gestione della patologia oncologica e delle sue complicanze.

### Un errore fortunato

S. Digregorio<sup>1</sup>, R. Innocenti<sup>1</sup>, M. Bernardini<sup>1</sup>, E. Cosentino<sup>1</sup>, C. Casati<sup>1</sup>, F. Fabbrizzi<sup>1</sup>, F. Corradi<sup>1</sup>, A. Morettini<sup>1</sup>

<sup>1</sup>AOU Careggi, Firenze, Italy

F.D.N., 18 anni, peruviano, accede in DEA per febbre e dolore addominale da 7 giorni, trattato con levofloxacina senza remissione della sintomatologia. Agli esami ematici rialzo spontaneo dell'INR. A seguito di riscontro ecografico di tumefazione iperecogena lobulata a livello dell'omento con vascolarizzazione accentuata e liquido libero in addome il paziente esegue TC con mdc, che mostra addensamento del tessuto adiposo omentale in ipocondrio destro (in regione sottoepatica) e sinistro e attorno al colon discendente. Tale referto, evocativo di una carcinosi peritoneale, appare tuttavia meritevole di approfondimento laparoscopico; la risposta istologica della biopsia eseguita in sede di intervento mostra flogosi granulomatosa con cellule giganti, necrosi e fibro-sclerosi degli stromi connettivo-adiposi. Si conclude quindi per una

TBC intestinale, per cui si imposta terapia antibiotica specifica. Dallo studio dell'assetto coagulativo emerge rialzo dei fattori II e VIII e positività al test al veleno di vipera, confermandosi così un quadro di Lupus Anticoagulant. Alla luce dei dati di letteratura appare in incremento il numero di casi di TBC extra-polmonare; a livello addominale l'infezione può localizzarsi all'intestino, ai linfonodi, al peritoneo, al fegato o alla milza. Essendo il quadro di febbre e dolore addominale aspecifico, il ritardo diagnostico che spesso consegue può portare a complicanze gravi, quali occlusioni (per tessuto fibrotico) o perforazioni a partenza da ulcere, spesso a livello della regione ileo-ciecale.

### An alternative cause of hepatobiliary disease

L. Fallai<sup>1</sup>, V. Maestriepieri<sup>1</sup>, C. Tozzetti<sup>1</sup>, M. Torri<sup>1</sup>, L. Poggesi<sup>1</sup>

<sup>1</sup>AOU Careggi, Firenze, Italy

We presented a case of a 56 yo woman with epigastric and right hypochondrial pain and one episode of vomit. She reported no significant medical history and no pharmacological therapy. At physical examination vital signs were normal, except for fever (38°C); pain was localized in the right subcostal region, without tenderness, no Murphy's or Blumberg's sign, and normal peristalsis. Laboratory results showed only a slight increase in gamma-GT, ALT, AST, and PT. Abdominal Ultrasounds showed a noncontracted gallbladder without lithiasis and normal wall thickness, no biliary dilatation but portal vein dilatation. An abdominal CT scan showed a splenic vein thrombosis, extended to superior mesenteric vein and portal vein, with irregular early hepatic parenchyma enhancement. We researched both inflammatory and paraneoplastic aetiology of the vein thrombosis with upper and lower gastrointestinal endoscopy and mammography, both negative; magnetic resonance cholangiopancreatography ruled out biliar cancer. Despite normal blood count values she was studied for the presence of JAK2 mutations, reported as a marker for occult myeloproliferative disorder in patients with splanchnic venous thrombosis, resulting absent. Patient was treated with piperacillin-tazobactam and fondaparinux with a gradual regression of pain and fever. At discharge, recanalization of thrombosis was documented only on superior mesenteric vein, whereas splenic and portal veins remained obstructed, so we advised to continue anticoagulation at least for 3 months, suggesting a CT scan after three months.

### Endocardite di Libman-Sacks su valvola aortica nativa: descrizione di un caso clinico

S. Favretto<sup>1</sup>, F. De Vecchi<sup>1</sup>, M. Bellan<sup>1</sup>, M. Pirisi<sup>1</sup>

<sup>1</sup>Università del Piemonte Orientale, Dipartimento di Medicina Traslationale, Novara, Italy

**Premesse:** Una condizione patologica, spesso sottodiagnosticata, e l'endocardite di Libman-Sacks o endocardite pseudoinfettiva. Si tratta di vegetazioni abatteriche, localizzate più spesso sul versante ventricolare della valvola mitrale in pazienti affetti da LES. La principale diagnosi differenziale è con l'endocardite batterica. **Caso clinico:** Una paziente di 53 anni con storia di LES diagnosticato 25 anni prima (mai trattato), accede al PS per dispnea ed astenia. All'esame obiettivo importante pallore cutaneo, iniziali segni di stasi toracica e succulenza pretibiale. Toni cardiaci ritmici, soffio sistolico puntale 3/6 e soffio diastolico su focolo aortico. Agli ematochimici in ingresso pancitopenia con severa anemia sideropenica (Hb 3.3 g/dl, ferritina 4,0 ng/ml), BNP 870 pg/mL. All'EGDS riscontro di ulcera gastrica. Durante la degenza la paziente ha sviluppato febbre; alla luce dei contestuali segni di scompenso cardiaco e dei soffi di nuovo riscontro, sono stati raccolti campioni per emocolture ed eseguito ecocardiogramma (prima transtoracico, quindi transesofageo) con riscontro di versamento pericardico lieve, valvola aortica fibrosclerotica, con formazioni nodulari iperecogene soprattutto a carico della cuspidi di destra con insufficienza moderata. Tali dati ecocardiografici e il riscontro di emocolture e PCR ripetutamente negativi, consumo del complemento e presenza di sierosite (versamento pleurico bilaterale e pericardico) ci hanno fatto ipotizzare una diagnosi di endocardite di Libman-Sacks.



### Artrite reumatoide ad esordio tardivo e presentazione atipica

A. Ferraro<sup>1</sup>, A. Amendola<sup>1</sup>, V. De Crescenzo<sup>1</sup>, C. Nizzi<sup>1</sup>, A. Taccone<sup>1</sup>, M. Manini<sup>1</sup>

<sup>1</sup>Medicina Interna, Ospedale San Giovanni di Dio, Orbetello (GR), Italy

**Premessa:** L'artrite reumatoide (RA) ad esordio tardivo (Late-onset rheumatoid arthritis- LORA) è una forma di RA con insorgenza dopo i 60 anni. La presentazione, l'impegno d'organo e articolare e la prognosi delle forme ad esordio tardivo, seguono un pattern differente dai casi ad esordio giovanile.

**Caso clinico:** Uomo di 61aa, con dispnea e dolori articolari; ex-fumatore, pregressa SCA con ST sopraslivellato e albero coronarico privo di lesioni, pregresso versamento articolare del ginocchio dx senza reperti suggestivi per artrite erosiva all'Rx. All'EO: non artrite in atto; dolore nei movimenti attivi e passivi delle metacarpo-falangee bilateralmente; modesta tumefazione e limitazione funzionale del ginocchio dx. Al torace mv ridotto e crepitii bibasali. Toni cardiaci validi, ritmici non rumori patologici. Esami ematochimici: (PCR 1,80 mg/dL, VES 26mm/h); non leucocitosi; Fattore Reumatoide (FR) 382.0 UI/mL (rif <15) Ab-anti peptide ciclico citrullinato 221.8 UI/mL (rif. <20). RX torace: normale. All'ecocardiogramma versamento pericardico. RX mani e polsi: assenza di alterazioni compatibili con RA; RMN mani e polsi: rilievo di erosioni a carico delle ossa del carpo bilateralmente, delle articolazioni metacarpo-falangee con modesto versamento articolare compatibili con RA.

**Conclusioni:** La contemporanea presenza del FR e degli anti-CCP altamente predittiva di precoci erosioni deve indurre alla conferma con imaging (RMN) più sensibile, anche di fronte ad una clinica non tipica e ad insorgenza tardiva.

### An atypical presentation of aplastic anemia in a retired farmer: a case report on differential diagnosis between two rare bone marrow failure

M. Finocchi<sup>1</sup>, P.A. Moggi Pignone<sup>1</sup>, A. Mele<sup>1</sup>, P. Bernardi<sup>1</sup>, G. Bandini<sup>1</sup>, C. Marchiani<sup>1</sup>, M. Gagliano<sup>1</sup>, E. Cioni<sup>1</sup>, N. Palagano<sup>1</sup>, T. Sansone<sup>1</sup>, C. Piazzai<sup>1</sup>, S. Lunardi<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>

<sup>1</sup>Università degli Studi di Firenze, Italy

**Background:** Aplastic anemia is a normocytic normochromic anemia that results from substitution of hematopoietic cell precursors with adipocytes. Main symptoms are: fatigue, bleeding and recurring or opportunistic infections. Bone marrow necrosis is a rare clinical entity defined as the necrosis of the myeloid tissue and stroma evident in >50% area of the bone marrow, without cortical bone involvement. Risk factors and causes are described but it can be also idiopathic such as the majority of aplastic anemia cases (up to 80%). The clinical presentation of our case was misleading and our purpose is to focus on these two clinical entities, finding out main differences.

**Case presentation:** We report the case of a 79 year old man, admitted for abdominal pain and backache. A lumbosacral skeleton x-ray showed multiple sclerotic lesions. Blood tests showed anemia, piastrinopenia and leucocytosis. The commonest diagnostic sign in bone marrow necrosis is bone pain. Other biochemical aberrations were elevated LDH, ALP and GOT levels and these also are required criteria to think about bone marrow necrosis. The bone marrow biopsy showed no hematopoietic tissue with necrotic areas.

**Conclusions:** Never forget that even if rare, aplastic anemia and bone marrow necrosis are likely diagnosis each time we find out a nonregenerative of anemia. In our case the only clue to exclude bone marrow necrosis was the aspirate which demonstrated punctio sicca instead of eosinophilic amorphous material. The border is not so clear: strong collaboration between pathologist and clinician is required.

### Non solo ictus...

S. Fruttuoso<sup>1</sup>, A. Torrigiani<sup>1</sup>, M. Fabbri<sup>1</sup>, R. Innocenti<sup>1</sup>, F. Corradi<sup>1</sup>, A. Morettini<sup>1</sup>

<sup>1</sup>Medicina Interna, OACA 2 (Dott. Morettini), AOUC, Firenze, Italy

V.A., donna, 77 anni, ipertensione arteriosa, ipotiroidismo AI in trattamento sostitutivo. Giunge in reparto per insorgenza di ricor-

renti episodi della durata di circa 10 minuti, a risoluzione spontanea, caratterizzati da afasia motoria + ipoestesia e parestesie all'arto superiore dx + deficit centrale del VII n.c. omolaterale. Segnalata recente insorgenza di deficit della memoria a breve termine. Alla TC cranio riscontro di soffiatura emorragica a livello della scissura di Rolando sx. AngioTC del circolo intra-cranico e dei v. del collo nei limiti. All'RM encefalo con sequenze Gradient Echo e SWI reperti compatibili con microvasculopatia emorragica con lesione ischemica subacuta a sede rolandica sinistra; non escludibili tuttavia vasculite o malformazione vascolare non visualizzabile all'RM. E' stato dunque eseguito studio angiografico dei v. intra-cranici che è risultato nella norma. E' stata pertanto acquisita consulenza neurologica che ha considerato i reperti clinici compatibili con quadro di angiopatia amiloide cerebrale (probabile secondo i criteri di Boston), reputando il meccanismo del disturbo recidivante verosimilmente irritativo, per cui ha posto indicazione ad intraprendere tp antiepilettica + steroidei, evitando uso di FANS, statine e serotoninergici. In caso di ictus emorragici corticali occorre prestare particolare attenzione alla presenza di caratteristiche cliniche quali episodi critici e deficit della memoria che possono andare a configurare un quadro di angiopatia amiloide cerebrale richiedente un particolare approccio diagnostico-terapeutico.

### Severe thrombocytopenia in late pregnancy

D. Galimberti<sup>1</sup>, M.C. Leone<sup>1</sup>, A.M. Pizzini<sup>1</sup>, D. Arioli<sup>1</sup>, A. Casali<sup>1</sup>, M. Granito<sup>1</sup>, A. Muoio<sup>1</sup>, A. Ghirarduzzi<sup>1</sup>

<sup>1</sup>Medicina 2 Cardiovascolare, ASMN Reggio Emilia, Italy

**Aim of the study:** Acute thrombocytopenia (TP) finding is common in pregnancy. It spans from asymptomatic and isolated TP, such as gestational TP, to severe and complicated TP, such as in thrombotic thrombocytopenic purpura or hemolytic uremic syndrome.

**Materials and Methods:** We describe the case of a healthy 23 y.o. woman with severe TP associated with mild anemia at 39th week of pregnancy. Platelet count was 25.000/mm<sup>3</sup>, hemoglobin 9.6 g/dl with MCV 76.1 fl. Peripheral blood smear showed schistocytes, dacryocytes and giant platelets. Haptoglobin was 0 and LDH 508 U/l. No previous history of TP or bleeding was reported. 3 months earlier platelet count was normal.

**Results:** A rapid review of gestational TP differential diagnosis was done. The absence of bleeding diathesis and normal coagulative, renal and liver function tests ruled out DIC, HELLP, HUS, preeclampsia, acute fatty liver, drug-induced TP. The most suggestive diagnosis was thus primary immune TP and high dose prednisone was started. What about the anemia? An hemolytic component was present while Coombs test was consistently negative, thus ruling out Evans syndrome. We checked a previous blood test in which Hb level was 11.6 g/dl and MCV was 61.2 fl: the patient had an unknown minor thalassemia associated with pregnancy VB12 deficit that caused the increase in MCV. She had a safe cesarean section after platelets infusion and steroid was gradually tapered.

**Conclusions:** TP in pregnancy is a diagnostic and management challenge, its severity and association with other diseases changes the management from an observational attitude to an invasive treatment.

### Un caso di esantema febbrile: non dimenticare la rickettsiosi

D. Giberti<sup>1</sup>, A. Araldi<sup>1</sup>, M.T. Mammone<sup>1</sup>, F. Bonetti<sup>1</sup>, F. Franco<sup>1</sup>, O. Arar<sup>1</sup>, C. Tana<sup>1</sup>, M. Silingardi<sup>2</sup>, F. Boni<sup>1</sup>

<sup>1</sup>Unità Internistica Multidisciplinare, Ospedale Civile di Guastalla, AUSL RE;

<sup>2</sup>Medicina Interna A, Ospedale Maggiore di Bologna, Italy

P.F., 77 anni, ipertesa, ricoverata per artralgie e lesioni purpuriche agli arti inferiori con centro sieroso-purulento presenti da una settimana e non responsive ad amoxicillina/clavulanato. Presentava febbre, incremento di PCR e D-dimero, leucocitosi, piastrinosi, negativa la PCT. RX torace ed Eco addome negativi. Decorso complicato da rettorragia ed ematuria di lieve entità senza anemia. Nel sospetto di erisipela bollosa o di vasculite si associava clindamicina al beta-lattamico e, dopo prelievi ematici e biopsia cutanea, iniziava steroide. Tra gli indagati risultavano ne-

gativi l'autoimmunità, le colture su sangue, urine e feci, la sierologia per epatiti virali e Borrelia, le crioglobuline e il TAS. Positiva con titolo significativo (1:320) la sierologia per Rickettsia conorii. All'istologico presenza nel derma superficiale di ampie aree di degenerazione/necrobiosi del collagene, associate ad un discreto infiltrato linfocitocitario, con interessamento anche della parete dei piccoli vasi, senza realizzare chiari aspetti di vasculite: reperto di tipo flogistico e compatibile con esiti infettivi di Rickettsiosi. Trattata con ciclo di doxiciclina per tre settimane e sospeso lo stericoide con evoluzione favorevole delle lesioni cutanee, normalizzazione degli indici di flogosi e dell'emocromo. La febbre bottonosa, non sempre diagnosticata e adeguatamente trattata per le analogie epidemiologiche e cliniche con altre malattie infettive febbrili e autoimmuni, si conferma importante diagnosi differenziale delle manifestazioni muco-cutanee di tipo vasculitico.

### Persistent fever

P. Gnerre<sup>1</sup>, G. Carta<sup>1</sup>, M. Pivari<sup>1</sup>, M.C. Pistone<sup>1</sup>, A. Beltrame<sup>2</sup>, G. Griseri<sup>3</sup>, A. Percivale<sup>4</sup>, E. Malfatto<sup>2</sup>, M. Anselmo<sup>2</sup>, R. Rapetti<sup>5</sup>, L. Parodi<sup>5</sup>

<sup>1</sup>Medicina Interna 2, Ospedale San Paolo, Savona; <sup>2</sup>Malattie Infettive, Ospedale San Paolo, Savona; <sup>3</sup>Chirurgia, Ospedale San Paolo, Savona; <sup>4</sup>Chirurgia, Ospedale Sanata Corona, Pietra Ligure (SV); <sup>5</sup>Medicina, Ospedale San Paolo, Savona, Italy

Hepatic abscesses are frequently polymicrobial. The majority of lesions occur in the right lobe (especially when solitary). 50% of hepatic abscess are cryptogenic. Abscesses are frequently associated with chronic medical conditions (diabetes, hematologic disease and chronic granulomatous disease, immunosuppression conditions). Treatment should include drainage, either percutaneous or surgical. Antibiotic therapy as a sole treatment modality is not routinely advocated. If left untreated, these lesions are invariably fatal. We present case report of patient with hepatic abscess and the correct management of that.

### Un caso complicato di scompenso cardiaco... quando catene leggere determinano effetti clinici pesanti

F. Guidoni<sup>1</sup>, F. Ardito<sup>1</sup>, M. Mezzabotta<sup>2</sup>, G. De Rosa<sup>3</sup>, C. Norbiato<sup>1</sup>

<sup>1</sup>SC Medicina Interna, Ospedale Mauriziano, Torino; <sup>2</sup>SCDU Ematologia, Ospedale Mauriziano, Torino; <sup>3</sup>SC Anatomia e Istologia Patologica Ospedale Mauriziano, Torino, Italy

**Premesse:** Lo scompenso cardiaco riconosce cause frequenti e cause rare che, se associate, possono determinare peggioramento clinico/prognostico nei pz affetti.

**Caso clinico:** Uomo di 64 aa, con multipli FRCV, CAD (pregresso NSTEMI, PTCA+BMS), FAC (ablazione TC+CVE), IVSx cronica, ricoverato per recidiva di scompenso cardiaco. Sintomi all'ingresso: tachiaritmia, astenia, dispnea, edemi declivi/faciale, versamento pleurico, ipotensione arteriosa, alvo diarroico, epatomegalia, macroglossia, ecchimosi periorbitarie, lesioni ungueali. Eseguiti esami ematochimici ed urinari (BNP, SAA, troponina, FCL S/U, epato-renali-tiroidei, EMC, ecc.), biotici (grasso periombelicale/retto/BOM), strumentali (Eco e TC torace/addome, colturale/citologico liq. pleurico, Ecocardi Doppler, Coronarografia, RMN cardiaca, ENG), viene posta diagnosi di Scompenso cardiaco in Cardiopatia ischemica/ipertensiva/infiltrativa, Polmonite, Amiloidosi sistemica primaria (AL). Avviata terapia con furosemide, bisoprololo, digossina, etilefrina, atorvastatina, apixaban, ATB, con miglioramento clinico e successiva CHT (melfalan/desametasone/bortezomib). Pz dimesso in F-UP ambulatoriale per monitoraggio clinico/terapeutico.

**Conclusioni:** In pz con scompenso cardiaco, CAD, FR multipli, la presenza di manifestazioni cliniche/laboratoristiche suggestive deve indurre a considerare l'esistenza di altre comorbidità (es. amiloidosi) come possibili cause di peggioramento clinico/prognostico della cardiopatia.

### Helicobacter pylori and thrombocytosis

M. Incagliato<sup>1</sup>

<sup>1</sup>Ospedale San Giacomo, Novi Ligure (AL), Italy

**Background and Purpose of the study:** In this study we tried to

evaluate a new role of Helicobacter Pylori in the differential diagnosis of idiopathic thrombocytosis; currently its screening is already well established in autoimmune thrombocytopenia, however there are not currently reports regarding the thrombocytosis by HP. **Materials and Methods:** We studied from 2008 to 2011 30 patients, which were examined for gastric disorders and blood test by our outpatient internal medicine and hematology, during of which there was a detection of thrombocytosis. All the patients were studied with the HP breath test, which resulted positive. After one month the first control gave these results: platelet count ranged 500,000 to 700,000 mmm<sup>3</sup>. All the patients presented high ferritin, VES, PCR, no anemia. The other values (ANA, ENA, B12, Folate, TIBC, were normal: ana ana, ra, test dose b12 and folate TIBC. aptoglobin direct, indirect coombs test and periferic blood smear The cytogenetics study as JK2, bcr / abl were negative and ultrasound investigations showed no hepatosplenomegaly, as well as the study of the x chromosome for clonality in women.

**Results:** Our sample consisted of 30 patients (20 women and 10 men), the median was 43 years (16 aa-73aa) all patients have eradicated the HP with triple antibiotic therapy and were subjected to serial gastroscopy as guidelines.; 3 months after the therapy, the platelets have fallen to a lesser range, i.e. 140,000-250,000.

**Conclusions:** In our retrospective study we wanted to underline the role of HP in the genesis of secondary thrombocytosis,

### False myocardial ischaemia and risk from exercise testing in patient with unexpected hypokalemia

L. La Mura<sup>1</sup>, G. La Mura<sup>2</sup>, M.T. De Donato<sup>3</sup>, M. Renis<sup>4</sup>

<sup>1</sup>Università di Napoli "Federico II"; <sup>2</sup>Cardiologo P.O. Scafati A.S.L. Salerno; <sup>3</sup>U.O.C. Medicina A.O.U. "S. Giovanni e Ruggi", Salerno; <sup>4</sup>U.O.C. Medicina P.O. Cava de' Tirreni, A.O.U. "S. Giovanni e Ruggi", Salerno, Italy

**Introduction:** Exercise testing is a cardiovascular stress test that uses treadmill bicycle exercise with ECG and blood pressure monitoring. It is frequently used, especially for diagnosis of ischemic heart disease.

**Clinical case:** F, 62; familiarity for CAD; risk factors: smoking, family mixed dyslipidemia, hypertension; she turns to a cardiologist for fatigue and palpitations. *Current therapy:* Ramipril/HCT 5/25; verapamil 120, rosuvastatin 10. *Echocardiography:* normal; ECG: ST segment depression in V 4-6, like ventricular overload (not present before). 19/01/16: 100 W exercise testing (H.R. 150/min.) suspended because of Run of ventricular tachycardia and accentuation of the depression. Neither angina or increased pressure. Assuming CAD, while waiting for myocardial scintigraphy, the patient undergoes therapeutic change (perindopril/indapamide/amlodipine 5/1,25/5; ranolazine 374 BID; ASA 100; Bisoprolol 1.25). 21/01/16: myocardial scintigraphy at rest and after effort (75 W; 137/min): accentuation of alterations like ventricular overload, in the absence of perfusion deficits, induced by the effort. 25/01/16: detection of severe hypokalemia (K=1,7)!

**Discussion:** Probably so serious electrolyte disorders had corroborated an ischemic heart disease path. The patient previously had no pharmacological and clinical elements which could indicate serious electrolyte disorders.

**Conclusions:** Exercise testing is an important examination, not without any risks, and always requires, in our opinion, preliminary clinical evaluation with lab test (electrolytes, heart enzymes and hemoglobin).

### An unusual presentation of Wegener's disease

F. Leonardi<sup>1</sup>, F. Vecchi<sup>1</sup>, C. Benatti<sup>1</sup>, A. Pedrazzi<sup>1</sup>, L. Totaro<sup>1</sup>, A. Renzi<sup>1</sup>, A. Zanasi<sup>1</sup>, C. Gollini<sup>1</sup>, A. Simone<sup>1</sup>, A. Minnucci<sup>1</sup>, G. Sirotti<sup>1</sup>, G. Caffagni<sup>1</sup>, M. Grandi<sup>1</sup>, S. Pederzoli<sup>1</sup>

<sup>1</sup>U.O. Complessa di Medicina Interna NOS, Sassuolo (MO), Italy

This report studies the case of a 55-years-old woman who was admitted to our division because she presented persistent high fever, weakness and widespread musculoskeletal pain. She had a past medical history of recurrent cystitis and of six-months idiopathic recurrent rhino-sinusitis. The physical examination was normal except for her body temperature and a swelling wrist and left hand. Laboratory data tests revealed a normocytic anemia, an in-

crease of her inflammatory markers and level of creatinine. A systemic pathology was suspected and autoimmune panel, tumor markers, culture tests on blood, faeces and urine, were negative. An ORL examination was carried out with biopsy of septum that was negative while renal biopsy revealed a small-vessel vasculitis. The data gathered led to the formulation of the diagnosis of Wegener Granulomatosis (WG) despite negative autoimmune test. WG is a rare necrotizing vasculitis that usually involves the upper and lower respiratory systems and kidneys. The illness, if untreated, has a serious prognosis; therapy is based on the use of immunosuppressants and biological drugs.

### Sickle cell anemia in Medicina Interna. Caso clinico

M. Lucesole<sup>1</sup>, A. Fioranelli<sup>1</sup>, N. Tarquinio<sup>1</sup>, M. Burattini<sup>1</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN), Italy

Donna, 33 anni, albanese, giunta in PS nel dic '16 per dolore toracico e cefalea in recente episodio infettivo delle prime vie aeree (terapia con penicillina per os). All'ingresso, anemia microcitica con segni di emolisi, Coombs negativo. Rx torace, TC encefalo, ECG, ecocardiogramma nei limiti. Riferita in anamnesi anemia falciforme con pregresse crisi vasocclusive e emolitiche in terapia con idrossiurea, Hcv+, pregressa splenectomia. Veniva ricoverata per crisi vasocclusiva ed emolitica in anemia falciforme in corso di episodio febbrile: sospesa idrossiurea, iniziava idratazione endovenosa+trasfusioni (4 UI di grc), oltreché terapia analgesica con analgesici maggiori (includenti morfina ev). Modificata terapia antibiotica empirica con levofloxacina in IV° giornata, per peggioramento del quadro respiratorio (insufficienza respiratoria tipo 1 all'EGA), e comparsa all'Rx Torace di versamento pleurico con atelektasia basale bilaterale. Iniziava ossigenoterapia+meropenem, amikacina, linezolid. Gli esami culturali risultavano negativi. Dimessa dopo 14 giorni. Si segnala piastrinosi ingravescente verosimilmente da sospensione dell'idrossiurea in splenectomizzata, per cui iniziava cardioaspirina e riprendeva successivamente oncocarbide. Si concludeva per crisi toracica acuta moderata in paziente con anemia falciforme, infezione da HCV, e sovraccarico marziale post-trasfusionale. Per prevenire ulteriori crisi vasocclusive abbiamo programmato cicli di exaguiotrasfusione, e iniziato terapia chelante con deferasirox. La crisi toracica acuta rimane la causa di morte principale tra i giovani con sickle cell anemia

### Anemia, ipocalcemia e fostatasi alcalina elevata: una "tresca" oscura oppure relazione ovvia?

V. Luiso<sup>1</sup>, E. Solaro<sup>1</sup>, V. Farinaro<sup>1</sup>

<sup>1</sup>Università della Campania "Luigi Vanvitelli", Caserta (CE), Italy

Donna di 82 anni con astenia, malessere e calo ponderale. Familiarità per malattie cardiovascolari; in anamnesi gastrectomia per k gastrico nel 2008, ipertensione arteriosa. I parametri vitali erano normali; alla visita la paziente era pallida, il resto nella norma. Agli ematochimici anemia e ALP aumentata, insufficienza renale, ipoalbuminemia, ipocalcemia, ipocalciuria, ipomagnesemia, carenza di acido folico e di vit. B12, iposideremia e VES elevata. All'ECG QTc: 0.5sec. L'EGDS risultava negativo per lesioni su moncone gastrico. Per l'ipocalcemia dosavamo il PTH, che risultava elevato e la vit D, risultava carente. Indagando sulle sue abitudini alimentari e non è emerso deficit vitaminico. Interrogata meglio, la paziente riferiva dolore addominale post-prandiale e alvo spesso diarroico. Per il notevole aumento della ALP eseguivamo scintigrafia ossea, che evidenziava: quadro compatibile con sostituzione midollare da patologia neoplastica. Eseguivamo TC total body con mdc che mostrava: ispessimento del sigma con aspetto substenotico del lume. Dunque, rivedendo i dati raccolti, ci orientavamo per una sindrome da Malassorbimento Intestinale. La paziente ha praticato colonscopia con biopsie: compatibile con colite ischemica. L'istologia confermava l'endoscopia. Posta diagnosi di sindrome da malassorbimento intestinale con deficit nutrizionali secondaria a colite ischemica, decidevamo per una terapia conservativa data l'età della paziente, per cui prescrivevamo NPT con integrazione dei nutrienti carenti. La paziente è in follow-up con risultati soddisfacenti.

### A steal of...consciousness

S. Lunardi<sup>1</sup>, A. Fabbri<sup>1</sup>, G. Ciuti<sup>1</sup>, G. Bandini<sup>1</sup>, P. Bernardi<sup>1</sup>, E. Cioni<sup>1</sup>, M. Finocchi<sup>1</sup>, M. Gagliano<sup>1</sup>, A. Mele<sup>1</sup>, C. Piazzai<sup>1</sup>, N. Palagano<sup>1</sup>, T. Sansone<sup>1</sup>, A. Moggi Pignone<sup>1</sup>

<sup>1</sup>Medicina per la Complessità Assistenziale 4, AOU Careggi, Firenze, Italy

A 45 year old woman came to our attention for recurrent episodes of loss of consciousness and dizziness with headache, chest and left arm pain. On the examination she had no focal neurological deficits and no orthostatic hypotension but she had asymmetric BP between her arms and her left radial and brachial pulse were hypostigmatic. The ECG showed sinus bradycardia with BAV I. A head CT scan showed a previous stroke in left inferior cerebellar area. A carotid and vertebral color Doppler US was made revealing widespread carotid tickening and reversed flow in the left vertebral artery. A subclavian steal syndrome was hypothesized and the patient underwent aortic and angio CT scan that showed widespread aortic and supra-aortic trunks impregnation of contrast medium; left subclavian artery had 85-90% stenosis. These findings raised the suspicion of Takayasu syndrome, that was endorsed by FDG-PET which revealed a widespread increase in aortic vascular metabolism. During hospitalization we started steroid treatment (1mg/pro Kg) and discharged the patient entrusting her to a outpatients immunologic unit.

### Un caso di " ipocoagulabilità" persistente dopo sospensione di warfarin

F. Lunati<sup>1</sup>, M. Dugnani<sup>1</sup>, M. Campanini<sup>2</sup>

<sup>1</sup>SSVD Medicina Interna, Sede di Galliate, AOU "Maggiore della Carità", Novara; <sup>2</sup>Medicina Interna II, AOU "Maggiore della Carità", Novara, Italy

La corretta gestione della terapia anticoagulante, in particolare degli antagonisti della Vitamina K e raramente infine può essere riscontrata una condizione di persistente "scoagulazione", nonostante la sospensione dell'AVK. Caso clinico: paziente di 83anni, in TAO per FA cronica, sottoposto a bonifica dentaria per accesso odontogeno, viene ricoverato per anemizzazione severa (Hb=7,0g/dL), edema arto inferiore dx, disidratazione, ipertermia, insufficienza renale acuta (creatinina 5,21mg/dL) verosimilmente prerenale; INR 6; l'ECD arto inferiore dx evidenziava ematoma intramuscolare della gamba; non TVP; sospeso Warfarin; trasfuso con 2 concentrati di Gr; Emocoltura positiva per Staphylococcus aureus; avviata Vancomicina a posologia adatta per presenza di IRA; urocultura pos per E Coli, avviato in associazione Cefotaxime. Per riscontro di ulteriore anemizzazione e persistenza per diversi giorni di elevazione di INR (3.5-4) con aPTT di 86 sec, sono stati eseguiti ricerca di Ab APL, LAC e dosaggio dei fattori della coagulazione senza peraltro evidenza di alterazioni. Alla sospensione della terapia antibiotica progressiva riduzione dell' INR (1.4 alla dimissione) e miglioramento della funzione renale. Il caso clinico evidenzia come frequentemente sono osservabili in corso di terapia con AVK rilevanti interferenze farmacologiche che possono altresì indurre "scoagulazione" che persiste dopo sospensione dell' AVK, anche in presenza di una condizione morbosa, come la sepsi, nella quale, come è noto, si verifica un' attivazione della cascata coagulativa.

### Un raro caso di rabdomiolisi

F. Lunati<sup>1</sup>, M. Dugnani<sup>1</sup>, M. Campanini<sup>2</sup>, G.C. Avanzi<sup>3</sup>

<sup>1</sup>SSVD Medicina Interna, Sede di Galliate, AOU "Maggiore della Carità", Novara; <sup>2</sup>Medicina Interna II, AOU "Maggiore della Carità", Novara; <sup>3</sup>Direttore Medicina d'Urgenza e Accettazione, Direttore Scuola di Specialità Medicina d'Urgenza e Accettazione, AOU "Maggiore della Carità", Novara, Italy

La rabdomiolisi può riconoscere molteplici cause, alcune molto comuni e altre più rare come i farmaci antiretrovirali. Paziente di 49 aa accede al DEA per algie muscolari algie diffuse con limitazione funzionale in sorte dopo sforzo fisico di moderata entità. In anamnesi segnaliamo coinfezione HIV/HVC, terapia antivirale con (combivir-telzir-norvir), ipertiroidismo in morbo di Graves in terapia con Tiamazolo. Agli esami ematochimici CK=99065 U/l, mioglobina >10000ng/mL, AST 1718 UL, ALT= 283 UL, creatinina 1,18,

elettroliti ed emogasanalisi nella norma. Avviata terapia infusiva idratante con soluzioni polielettrolitiche, viene interrotta la terapia antivirale. La diuresi/24 h è stata mantenuta >4000 cc, le urine sono state alcalinizzate con aggiunta di NaHCO<sub>3</sub>. Progressiva riduzione delle mialgie e della limitazione funzionale. TSH era nella norma. Si ritiene quindi plausibile che la sindrome rabdomiolitica sia stata indotta dalla azione sinergica di attività muscolare moderata associata alla possibile tossicità mitocondriale della terapia antiretrovirale. Il paziente viene dimesso dopo 5 giorni; i controlli ematochimici evidenziano: CK 7500, mioglobina 1018 ng/mL, AST 355U/L, creatinina 1,22 mg/dL.

La sindrome rabdomiolitica rappresenta una condizione clinica potenzialmente severa per l'elevata frequenza di "organ failure" e di mortalità; l'eziologia è spesso iatrogena; i farmaci antivirali possono raramente indurre marcato aumento degli enzimi mioprecursori con conseguente potenziale rischio di grave e acuta compromissione della funzione renale.

### Acute myocardial infarction with non-obstructive coronary artery disease in a patient with a thrombophilic status

V.M. Magro<sup>1</sup>, M. Caturano<sup>2</sup>, F. Cacciapuoti<sup>1</sup>, F. Cacciapuoti<sup>3</sup>, D. Lama<sup>1</sup>

<sup>1</sup>Unità di Ecocardiografia, Università degli Studi della Campania "Luigi Vanvitelli", Napoli; <sup>2</sup>ASL NA1, Napoli; <sup>3</sup>AORN A. Cardarelli, Napoli, Italy

**Background:** The acute myocardial infarction with normal or nonobstructive coronary arteries is a heterogeneous clinical syndrome (including both STEMI and NSTEMI) and to different degrees (varying from 5 up to 25% across all acute coronary syndromes) that sets the stage for several reflections both from a prognostic point of view of the management of these patients. We present a case in a patient with thrombophilic diathesis, discussing the our decisions.

**Case report:** 55-year-old patient came to our observation for precordialgia and mild dyspnea. ECG signs of injury in the anterolateral wall, with persistent ST-segment elevation. TnI 1.9 ng/l, CK-MB 52 mU/l. The patient was treated with systemic thrombolysis and we started to coronary angiography, with only no hemodynamically significant stenosis finding (ca 20%) in the proximal and middle of the right coronary artery. Regression of ECG ischemic injury. A subsequent scintigraphy showed no perfusion deficits, with good kinesis and EF 55%.

**Discussion:** The patient is typically presented with chest pain, ECG changes, enzyme curve, in the absence of significant coronary artery disease, which allowed us to objectify the diagnosis. The presence of different etiopathogenic hypothesized mechanisms at the base of this case (spasm, thromboembolus), in a patient with thrombophilia, explained the prognostic heterogeneity, not favorable for strength, both the therapeutic choices (DAPT and continuous use of clopidogrel, of a statin to increased power, such as by post-SCA, a nitrate for any symptoms).

### Grado di correlazione fra frazione di eiezione del ventricolo ed atrio sinistro

G. Malgieri<sup>1</sup>, G. Rinaldo<sup>2</sup>, M. Di Resta<sup>3</sup>, M.D. Viele<sup>2</sup>, G. Di Santo<sup>2</sup>

<sup>1</sup>Centro per l'ipertensione ASL BN1, UOC di Cardiologia, P.O. "Sant'Alfonso Maria de' Liguori", Sant'Agata De' Goti (BN); <sup>2</sup>UOC di Medicina Interna e Specialistica, P.O. "Sant'Alfonso Maria de' Liguori", Sant'Agata De' Goti (BN); <sup>3</sup>Direzione Sanitaria, Casa di Cura "Alma Mater S.p.A., Villa Camaldoli", Napoli, Italy

**Premesse:** Lo studio valuta la correlazione tra F.E. atriale e F.E. del VS e la sua importanza in alcune frequenti patologie.

**Materiali e Metodi:** In 90 pazienti, tra 15 e 85 anni, è stata calcolata la F.E. del VS e dell'AS con la metodica dei dischi paralleli di Simpson, e correlati statisticamente tramite il coefficiente di Pearson. I dati sono stati riportati in una tabella riportante pazienti con FA, ipertensione arteriosa, insufficienza mitralica (IM) e ipercinesia da tachicardia sinusale.

**Risultati:** si è evidenziata una bassa correlazione tra F.E. del VS e F.E. dell'AS, per cui è da ritenere che le due variabili sono indipendenti. Inoltre nella FA si è vista una riduzione della cavità atriale con F.E. bassa, mentre la F.E. dell'AS è risultata alta nell'IM, nell'ipertensione arteriosa e nell'ipercinesia del VS.

**Conclusioni:** La mancata correlazione della F.E. dell'AS con la F.E. del VS sembra confermare la scarsa importanza dell'attività atriale sulla gittata sistolica ed il ruolo svolto dalle fibre di collagene del VS nella fase protodiastolica. Nella FA la F.E. misurabile è legata alle modificazioni di volume nell'atrio conseguenti alla deflazione di sangue in protodiastole e quindi in relazione alla funzione aspirativa del VS. Nell'IM la F.E. è alta perché il maggiore riempimento atriale pone in tensione le fibre elastiche atriali che partecipano alla successiva fase espulsiva dell'atrio stesso. Negli stati di ipertensione arteriosa e di ipercinesia, la F.E. dell'AS è tendenzialmente più alta per una maggiore forza di contrazione delle fibrocellule muscolari atriali.

### Un raro caso di feocromocitoma e sindrome di Cushing subclinico

C. Marinelli<sup>1</sup>, L. Petramala<sup>1</sup>, F. Olmati<sup>1</sup>, A. Concistrè<sup>1</sup>, G. Iannucci<sup>1</sup>, G. D'Ermo<sup>2</sup>, A. Ciardi<sup>2</sup>, G. De Toma<sup>2</sup>, C. Letizia<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Specialità Mediche, Sapienza, Roma; <sup>2</sup>Dipartimento di Chirurgia "P. Valdoni", Sapienza, Roma, Italy

**Premesse e Scopo dello studio:** L'associazione di feocromocitoma e sindrome di Cushing subclinico da parte della stessa ghiandola è molto rara. Noi riportiamo un caso clinico di feocromocitoma surrenalico destro ed ipercortisolismo subclinico.

**Materiali e Metodi:** Donna di 61 anni seguita presso il nostro centro di ipertensione secondaria ad Endocrinopatie complesse per il riscontro di lesione surrenalica destra di 26 mm a TC addome effettuata per dolori addominali. In anamnesi: ipertensione arteriosa con retinopatia ipertensiva al II stadio, associata ad episodi di cefalea e cardiopalmo. TC addome effettuata al follow up di 1 anno mostrava lesione surrenalica destra disomogenea di 44 mm con enhancement progressivo dopo m.d.c., persistenza di aree di ipodensità nel contesto. La paziente era candidata ad intervento di surrenectomia laparoscopica destra.

**Risultati:** Lo studio del SRAA e delle metanefrine urinarie pre-operatorie mostravano: elevati valori di cortisolo urinario (su due campioni di raccolta) e mancata soppressione al test al desametasone (1 mg ore 23), lo studio delle metanefrine urinarie risultava nella norma. L'esame istologico era diagnostico per feocromocitoma, con duplice iperplasia, micronodulare della corticale e della midollare residua. Al follow up di 1 anno lo studio del SRAA e delle metanefrine urinarie risultavano nella norma.

**Conclusioni:** Le lesioni surrenaliche incidentalmente scoperte devono essere sottoposte ad uno specifico iter clinico-diagnostico e ad uno stretto follow-up al fine di identificare le forme chirurgicamente trattabili.

### Pulmonary arterial hypertension in Internal Medicine

G.P. Martino<sup>1</sup>, A. Farina<sup>1</sup>, D. Benfaremo<sup>2</sup>, P. Grossi<sup>3</sup>, R. Badagliacca<sup>4</sup>, F. Astorri<sup>1</sup>

<sup>1</sup>ASUR Marche, Ospedale A. Murri Fermo, Medicina Interna; <sup>2</sup>AOU Ospedali Riuniti Ancona, Clinica Medica; <sup>3</sup>ASUR Marche, Ospedale Mazzoni Ascoli Piceno, Cardiologia/Emodinamica; <sup>4</sup>Università degli Studi di Roma "La Sapienza", Dipartimento di Scienze Cardiovascolari, Respiratorie, Nefrologiche, Anestesiologiche e Geriatriche, Roma, Italy

**Case presentation:** A woman affected by limited Systemic Sclerosis (SSc) was admitted to our department for worsening dyspnea since a month before. Her history was notable for anti-centromere positive SSc, with active scleroderma pattern on nailfold capillaroscopy, for which she was being treated with intravenous prostanoids. Upon admission, physical examination was normal. BNP, troponin I and D-dimer tests were negative, as were ABG test and an EKG. The 6-minute walking test was interrupted for the onset of severe dyspnea after 100 meters. High-resolution chest CT did not show any sign of interstitial fibrosis, whereas spirometry showed severe reduction of the carbon monoxide diffusing capacity (52%). We therefore performed bedside echocardiogram, estimating an elevated pulmonary artery systolic pressure (75 mmHg) with a tricuspid regurgitation velocity of 4 m/s. The right heart catheterization confirmed an elevated mean pulmonary artery pressure (38 mmHg), with normal wedge pressure and normal car-

diac output. A diagnosis of pulmonary arterial hypertension (PAH) associated with SSc was made and treatment with tadalafil and macitentan was successfully started.

**Discussion:** PAH is one of the most severe complications of SSc, burdened with high morbidity and mortality. Internists are becoming more and more independent in performing and interpreting diagnostic tests, like ultrasound. This aspect places them at the core of clinical pathways, in order to improve the care of the single patient, even for rare diseases that usually require a multidisciplinary management, such as PAH.

### Ruolo dell'infermiere nel prevenire, riconoscere e gestire la sepsi

S. Mercatelli<sup>1</sup>, D. Fonti<sup>1</sup>, C. Mercatelli<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna Valtiberina, Sansepolcro (AR), Italy

*“La sepsi è la risposta travolgente dell'organismo ad un'infezione e può colpire chiunque, in ogni momento e scaturire da una qualsiasi infezione. La metà delle persone colpite può morire se medici ed infermieri non ne riconoscono prontamente i segni”. Un recente rapporto del CDC “Rendi le cure sanitarie sicure, pensa alla sepsi, il tempo conta”, mostra come 7 su 10 pazienti con sepsi avevano già ricevuto trattamenti medici per malattie croniche, spesso con posizionamento di device. In effetti, l'esordio di ben l'80% delle sepsi ha inizio fuori dall'ospedale. L'infermiere svolge un ruolo centrale nel precoce riconoscimento dei segni e sintomi della sepsi, attraverso il monitoraggio delle funzioni vitali del paziente (MEWS SOFA), concorre all'inquadramento diagnostico ed all'inizio della terapia adeguata. La sepsi richiede un approccio multidisciplinare dove tutti gli operatori devono essere informati, consapevoli e formati. In particolare gli operatori possono: Prevenire le infezioni: seguendo le buone pratiche (es.lavaggio delle mani) e facendo ricorso alle opportune vaccinazioni (es.vaccino anti-influenzale); Educare i pazienti ed i loro familiari: conoscere le condizioni predisponenti ed i segni e sintomi di sepsi consente una diagnosi tempestiva; Agire velocemente: Se vi è il sospetto di sepsi procedere subito a indagini di conferma e iniziare la terapia specifica; Ricontrollare le condizioni del paziente parametri ed indicatori di efficacia della terapia.*

### Progetto per la gestione della cronicità della broncopneumopatia cronica ostruttiva

I. Morana<sup>1</sup>, M. Bonaccorso<sup>1</sup>, M. Callea<sup>1</sup>, C. Di Mauro<sup>1</sup>, D. Morana<sup>2</sup>, C. Virgillito<sup>1</sup>, S.A. Neri<sup>1</sup>

<sup>1</sup>Medicina Interna Area Critica ARNAS Garibaldi, Catania; <sup>2</sup>Trainee, Medicina Interna Area Critica ARNAS Garibaldi, Catania, Italy

La BPCO è uno dei più rilevanti problemi clinici. In Italia, le malattie dell'apparato respiratorio rappresentano la terza causa di morte dopo le malattie cardiovascolari e le neoplasie ed è responsabile di più della metà dei decessi per malattie polmonari. Per migliorare la gestione della BPCO e ridurre il suo impatto socio-economico, l'intervento sanitario deve modificarsi da medicina di attesa a medicina di iniziativa. Proponiamo un percorso ospedale-territorio sperimentale che si occupi per due anni di un gruppo di pazienti (50) affetti da BPCO mediante: Costituzione di un TEAM che preveda la partecipazione del medico ospedaliero, del MMG, di infermieri, riabilitatori, caregiver, personale delle strutture di lunga degenza o di assistenza residenziale per gestione integrata della malattia. Integrazione del medico di base nella gestione della cronicità e nella prevenzione della disabilità mediante interventi formativi e supporto decisionale nelle attività assistenziali. Formazione e sostegno dei pazienti e delle famiglie nell'affrontare e gestire la malattia ricostituendo una rete familiare di intervento. Implementazione di un percorso di riabilitazione e domiciliarizzazione mediante realizzazione di una piattaforma di telemedicina e teleassistenza con monitoraggio domiciliare dei parametri vitali, uso di questionari per valutazioni del quadro sintomatologico, possibilità di accesso remoto a centrale di assistenza telefonica, possibilità di intervento al domicilio del paziente se necessario, accesso privilegiato ad ambulatorio specialistico e se necessario a DEA ospedaliero.

### Proposta di progetto di gestione integrata ospedale-territorio del paziente con broncopneumopatia cronica ostruttiva

M.A. Moschella<sup>1</sup>, S. Pedretti<sup>1</sup>, R. Frediani<sup>2</sup>

<sup>1</sup>SOC di Medicina Interna, Ospedale San Biagio, Domodossola, ASL VCO, Domodossola (VB); <sup>2</sup>Medicina Interna, Ospedale San Biagio, Domodossola, ASL VCO, Domodossola (VB), Italy

**Introduzione:** La Broncopneumopatia cronica ostruttiva (BPCO) è una delle patologie più frequenti, costose e di difficile gestione integrata tra strutture ospedaliere e rete sanitaria territoriale. Diversi modelli di integrazione sono già stati proposti e sperimentati.

**Materiali e Metodi:** Abbiamo esaminato alcuni progetti di gestione integrata della BPCO già esistenti a livello nazionale ed internazionale che sono stati giudicati di difficile attuazione per la complessità e soprattutto carenti nell'aspetto relativo all'integrazione tra MMG e specialista Ospedaliero. La nostra proposta si articola attraverso due percorsi rivolti da una parte alla diagnosi precoce, e dall'altra alla gestione del paziente più complesso, al momento della dimissione dopo un ricovero per riacutizzazione di BPCO. La prima parte è di pertinenza del MMG, che monitorizzerà i pazienti di età superiore a 35 anni, fumatori di 10 o più sigarette/die con 3 episodi di bronchite all'anno, valutando l'entità dei sintomi attraverso un questionario ad hoc, ed effettuando un esame spirometrico, con successivo eventuale invio del paziente allo specialista in base alle caratteristiche di gravità. La seconda parte del progetto ha come figura di riferimento il medico ospedaliero che fornirà il paziente dimesso dopo un ricovero per riacutizzazione di BPCO, di una scheda personalizzata che informi con dettaglio il MMG di tutti gli elementi clinici indispensabili per un corretto follow-up che sarà concordato, in base alle condizioni del paziente, presso lo studio del MMG e l'ambulatorio specialistico ospedaliero.

### “L'anamnesi è mezza diagnosi”: un caso infrequente di anemia ipocromica normocitica

R. Muscariello<sup>1</sup>, D. Capocotta<sup>2</sup>, D. Rendina<sup>3</sup>, V. Apuzzi<sup>1</sup>, A. Buonauro<sup>1</sup>, F. Cannavacciuolo<sup>1</sup>, L. Di Capua<sup>1</sup>, G. Stanziano<sup>1</sup>, A.I. Pisacreta<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Ospedale “Agostino Maresca”, Torre del Greco (NA); <sup>2</sup>DAI di Medicina Interna e Specialistica, Seconda Università degli Studi di Napoli (SUN), Napoli; <sup>3</sup>Dipartimento di Medicina Clinica e Chirurgia, Università degli Studi di Napoli “Federico II”, Napoli, Italy

La paziente è una donna, caucasica, 82 anni. Accesso in PS per astenia. All'ingresso anemia ipocromica normocitica (Hb: 7,4 g/dl; GR: 2,8x10<sup>6</sup>; MCV: 91 fL). Si decide il ricovero in Medicina Interna per approfondimento diagnostico. Anamnesi patologica remota positiva per cefalea ricorrente trattata con FANS al bisogno. La paziente riferiva una recente diagnosi di cataratta e riportava un occasionale riscontro di febbre intermittente e mialgie prossimali. Da 6 mesi astenia ingravescente associata a perdita di peso significativa. L'esame obiettivo d'ingresso era sostanzialmente nei limiti. All'ECG tachicardia sinusale (102 bpm). Gli esami biochimici di ammissione evidenziavano un quadro di flogosi sistemica, con PCR: 156,4 mg/dl; VES 80 mm/1h, sideremia: 11 mg/dl; transferrina 147 mg/dl; ferritina: 815 mg/dl. Colonscopia nei limiti. Approfondendo l'anamnesi, la cefalea era riferita come bitemporale. La paziente riferiva claudicatio masticatoria e deficit del campo visivo intermittente. Alla palpazione, l'arteria temporale era bilateralmente dura, dolente. Si procedeva all'esecuzione di una biopsia dell'arteria temporale che permetteva di confermare la diagnosi clinica di Arterite a Cellule Giganti di Horton; la paziente veniva avviata al trattamento con Prednisone 50 mg/die. Al primo controllo, la paziente riferiva netta riduzione della sintomatologia, con Hb: 10,3 mg/dl. L'arterite di Horton può presentarsi in modo aspecifico; per una corretta diagnosi è basilare la ricerca dei sintomi specifici, talora considerati secondari dallo stesso paziente.

### La difficoltà nel riconoscimento iniziale e le recenti variazioni di terapia psicotropa sono un elemento ricorrente nella sindrome maligna da neurolettici

O. Nannola<sup>1</sup>, C. De Martino<sup>1</sup>, M. Di Palo<sup>1</sup>, R. Fiandra<sup>1</sup>, E.M.R. Itto<sup>1</sup>, V. Manzo<sup>2</sup>, D. Petito<sup>1</sup>, M. Sacco<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli; <sup>2</sup>U.O. Neurologia, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** La sindrome maligna da neurolettici (SMN) può essere confusa con svariate condizioni morbose, sia per l'eterogeneità dei sintomi nella tipologia e nell'entità sia perché colpisce in genere pazienti affetti da patologia psichiatrica, non sempre in grado di esplicitare l'esordio di una nuova situazione clinica.

**Rassegna dei casi:** Nel nostro reparto sono state registrate negli ultimi otto mesi tre casi di sindrome maligna da neurolettici. Nel primo caso, in uomo di 53 anni proveniente da casa di cura, la diagnosi di esordio era "sospetto a.c.v.", nel secondo caso, in uomo di 53 anni proveniente dal proprio domicilio, la diagnosi di ingresso era "ipotermia"; nel terzo caso, in uomo di 63 anni proveniente da casa di cura, la diagnosi di ingresso era "dispnea". In tutti e tre i casi era riportata una recente variazione nella terapia psicotropa. I primi due casi si sono conclusi con l'exitus.

**Discussione:** La nostra piccola casistica conferma quanto si rileva in letteratura sulla possibilità di confondere la SMN con molte patologie che presentano manifestazioni cliniche simili. E' molto importante pertanto prendere in considerazione la diagnosi di questa patologia, che risulta peraltro meno infrequente di quanto ritenuto un tempo: significativa è la circostanza, rilevata in sede di anamnesi, che nel primo e terzo caso probabilmente l'esordio della sindrome è stato scambiato per aggravamento della patologia psichiatrica, portando al ricovero dei pazienti in casa di cura psichiatrica e a un erroneo incremento della terapia neurolettica.

### Iperensione arteriosa essenziale e ipertensione arteriosa secondaria

S.A. Neri<sup>1</sup>, A. Tripiciano<sup>1</sup>, C. Sgroi<sup>1</sup>, R.A. D'amico<sup>1</sup>, M. Bonaccorso<sup>1</sup>, C. Virgillito<sup>1</sup>, I.M. Morana<sup>1</sup>

<sup>1</sup>U.O. di Medicina Interna in Area Critica, ARNAS "Garibaldi", Catania, Italy

**Introduzione:** Spesso nella pratica clinica quando si valuta un iperteso ci si chiede se si è di fronte ad una forma essenziale o secondaria. Non si pensa, di solito, alla possibilità che entrambe coesistano. Noi presentiamo il caso di una donna di 60 a.

**Caso clinico:** Iperensione arteriosa essenziale da 15 anni trattata con nebivololo 5 mg ed in buon compenso emodinamico. Un pomeriggio, al rientro, la pz ritrovava il marito deceduto improvvisamente sul divano davanti al televisore. Da allora compare rialzo pressorio persistente associato a picchi ipertensivi sintomatici. Sottoposta a visita clinica e ABPM veniva documentato uno stato ansioso-depressivo interpretato come reattivo al lutto e una ipertensione sisto-diastolica di grado 2. Aggiunta alla terapia idroclorotiazide 12.5 mg e amlodipina 10 mg otteneva la stabilità pressoria. Dopo 15 gg la pz riferiva disestesie agli arti inferiori, sensazione di "gonfiore generalizzato" e astenia intensa. L'obiettività evidenziava edemi malleolari e al volto, specie periorbitari, di lieve entità. Nella norma l'obiettività neurologica. Venivano eseguiti ECG (nella norma) ed esami di routine (Potassiemia 2.2 mEq/l). Quest'ultima male si spiegava con la bassa dose di diuretico utilizzata. Tuttavia, sospeso il diuretico, e aggiunto KCl per os, eseguiva il dosaggio di ACTH, renina, aldosterone e cortisolo sierico-urinario. Con sorpresa veniva diagnosticata S. di Cushing. **Conclusioni:** Il caso presentato mette in guardia dal trarre conclusioni affrettate nel valutare i pazienti in quanto non tutto è come sembra.

### Cardiopalmo, faringodinia persistente e reflusso gastroesofageo

S.A. Neri<sup>1</sup>, A. Tripiciano<sup>1</sup>, C. Sgroi<sup>1</sup>, R.A. D'amico<sup>1</sup>, M. Bonaccorso<sup>1</sup>, C. Virgillito<sup>1</sup>, I.M. Morana<sup>1</sup>

<sup>1</sup>U.O. di Medicina Interna in Area Critica, ARNAS "Garibaldi", Catania, Italy

**Introduzione:** Il reflusso gastroesofageo è spesso causa di flogosi persistente delle alte vie aeree e talvolta di tachicardia ed anche extrasistolie sopraventricolari. Presentiamo il caso di una donna di 54 a.

**Caso clinico:** Da 3 mesi cardiopalmo e faringodinia non responsiva alla terapia medica effettuata. Diversi specialisti ORL, riscontrata flogosi dell'orofaringe, invocavano il reflusso gastroesofageo come probabile causa. I cardiologi avevano diagnosticato un cardiopalmo

"ansioso". Eseguita EGDS veniva riscontrata ernia iatale da scivolamento in assenza di lesioni esofagee. Veniva intrapresa terapia con omeprazolo e ac. ialuronico, ma dopo un mese nessun beneficio. A questo punto la pz giungeva alla ns osservazione: obiettività cardiopolmonare nella norma, flogosi catarrale di tipo cronico dell'orofaringe, linfoadenopatia laterocervicale dolente, tiroide di consistenza pastosa lievemente incrementata di volume. ECG (RS a 97 b/m'). Si sottoponeva la pz a rinoscopia (faringite cronica), ecografia collo-tiroide (linfoadenopatia reattiva e tiroide lievemente aumentata di volume con ecostruttura disomogenea e 3 noduli), AbTg - AbTPO presenti a basso titolo - FT3-FT4-TSH (nei limiti).

**Conclusioni:** Tiroidite autoimmune eutiroidea misconosciuta. La patologia tiroidea fungeva da comune denominatore a quanto riferito dalla pz e la remissione clinica è stata ottenuta trattando la tiroidite. Il caso sottolinea l'importanza dell'approccio internistico al paziente *versus* l'approccio "superspecialistico d'organo".

### Cardiomiopatia dilatativa idiopatica con aritmia completa da fibrillazione atriale e ictus cerebrale cardioembolico

S.A. Neri<sup>1</sup>, A. Tripiciano<sup>1</sup>, C. Sgroi<sup>1</sup>, R.A. D'amico<sup>1</sup>, M. Bonaccorso<sup>1</sup>, C. Virgillito<sup>1</sup>, I.M. Morana<sup>1</sup>

<sup>1</sup>U.O. di Medicina Interna in Area Critica, ARNAS "Garibaldi", Catania, Italy

**Introduzione:** La CMD, a causa della gravità delle alterazioni morfo-funzionali e della prognosi, è stata, considerata come un modello di esito infausto. Noi presentiamo il caso di una donna di 65 a.

**Caso clinico:** Da circa 20 a. DM tipo 2, dislipidemia mista e ipertensione arteriosa. Comparsa improvvisa di paresi faciobrachio-cirale dx e disartria. In PS riscontro di fibrillazione atriale non databile. Durante la degenza gli esami evidenziavano: Hb glicata 9%, TC encefalo: vasculopatia multifocale, ecocardiografia: cavità sx notevolmente dilatate, ipocinesia diffusa con FE 40%. CVG: coronarie indenni. Marcatori virali negativi. In 2° giornata netto miglioramento delle condizioni neurologiche, con scomparsa della disartria e solo ipostenia emisoma dx. In 10° giornata la pz viene dimessa in buone condizioni generali (regressione quasi completa del quadro neurologico, persiste FA ma con controllo ottimale della risposta ventricolare). La paziente viene trattata con bisoprololo, ramipril, furosemide, canrenone, atorvastatina, Omega-3, rivaroxaban, ins. Lispro e glargine. Si dimostra estremamente risoluta a seguire i controlli trimestrali proposti. Dopo 18 mesi: regressione della dilatazione delle sezioni sx e FE 55%. Dopo 30 mesi: ripristino, a tutt'oggi, del ritmo sinusale.

**Conclusioni:** Considerando il ruolo cruciale del rimodellamento cardiaco nella progressione della CMD ed il valore prognostico del "Left Ventricular Reverse Remodeling", in corso di terapia ottimizzata, appare di importanza fondamentale il regolare e duraturo follow-up di questi pazienti.

### Un caso di embolia polmonare

V. Nesticò<sup>1</sup>, M. Lucia<sup>2</sup>, R. Cimino<sup>1</sup>, L. Levato<sup>3</sup>, A. Raynal<sup>4</sup>, A.M. Lavecchia<sup>5</sup>

<sup>1</sup>Struttura Complessa di Medicina Generale, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>2</sup>Struttura Complessa di Medicina e Chirurgia di Accettazione ed Urgenza, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>3</sup>Struttura Complessa di Ematologia, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>4</sup>Struttura Complessa di Chirurgia Generale, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>5</sup>Struttura Complessa di Anatomia Patologica, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro, Italy

Nel novembre 2016 è giunta alla nostra osservazione una donna di 62 anni a motivo di anemia severa e del riscontro TC di neoformazioni espansive polmonari a carico dei lobi inferiori, trombosi bilaterale dei rami dell'arteria polmonare, trombosi venosa ileo-femorale destra, splenomegalia. In anamnesi astenia e dispnea ingravescenti, febbre irregolare, sudorazione notturna, calo ponderale. Abbiamo riscontrato anemia (Hb 7,8 g/dl) con test di Coombs diretto e indiretto positivo, incremento dei livelli sierici di 2-microglobulina. La PET-TC ha mostrato radio-accumulo nelle sedi indicate in corso di TC, ed inoltre a livello scheletrico e dei linfonodi mediastinici e inguinali. Sono state eseguite la biopsia

escissionale di linfonodo inguinale sinistro, e la biopsia osteo-midollare. Abbiamo somministrato terapia con *Enoxaparina* 100 U.I./Kg $\times$ 2/die e *glucocorticoidi*, osservando graduale miglioramento clinico. L'esame istologico ha rivelato in entrambe le sedi un reperto compatibile con Linfoma B diffuso a grandi cellule.

### Noduli epatici multipli

V. Nesticò<sup>1</sup>, M. Lucia<sup>2</sup>, R. Cimino<sup>1</sup>, D. Frontera<sup>1</sup>, S. Giancotti<sup>1</sup>, C. Pintaudi<sup>1</sup>

<sup>1</sup>Struttura Complessa di Medicina Generale, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>2</sup>Struttura Complessa di Medicina e Chirurgia di Accettazione ed Urgenza, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro, Italy

Nel gennaio 2016 è giunta alla nostra osservazione una donna di 75 anni per astenia ingravescente, epistassi, dolore all'ipocondrio destro. In Pronto Soccorso evidenza ecografica di noduli epatici multipli, il maggiore dei quali del diametro di 11 cm a carico del lobo destro; le conclusioni deponevano per lesioni di carattere neoplastico. In anamnesi malattia infiammatoria cronica intestinale; nel marzo 2015 svuotamento chirurgico di ascesso perianale fistolizzato ed ileostomia a motivo di stenosi marcata della regione anale. Abbiamo riscontrato febbre e due emocolture positive, una per *Staphylococcus haemolyticus*, la seconda per *Staphylococcus epidermidis*, entrambi produttori di beta-lattamasi e *meticillino-resistenti*. Gli altri esami di laboratorio hanno messo in evidenza anemia, piastrinopenia, deterioramento della funzione renale e stato infiammatorio (Hb 8,2 g/dl - GB 13.200 - PLT 36.000 - Creatinina 2,4 mg/dl - PCR 138 mg/l - Ferritina 5.643 ng/ml - Procalcitonina 1,48 ng/ml - Calprotectina fecale 163,4 ng/ml; -fetoproteina, CEA, nella norma). La RM addome ha rivelato la presenza di ascessi epatici; il radiologo interventista ha eseguito drenaggio eco-guidato con fuoriuscita di 150 ml di liquido purulento. Abbiamo somministrato terapia antibiotica mirata con *Daptomicina* e *Linezolid*. Il controllo ecografico successivo ha dimostrato netta riduzione di volume delle lesioni ascessuali. Abbiamo dimesso la paziente con sfebbramento persistente e funzione renale migliorata.

### Ittero a bilirubina indiretta

V. Nesticò<sup>1</sup>, M. Lucia<sup>2</sup>, S. Giancotti<sup>1</sup>, M.T. Polistena<sup>1</sup>, C. Pintaudi<sup>1</sup>, R. Cimino<sup>1</sup>

<sup>1</sup>Struttura Complessa di Medicina Generale, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>2</sup>Struttura Complessa di Medicina e Chirurgia di Accettazione ed Urgenza, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro, Italy

Nel maggio 2016 è giunta alla nostra osservazione una donna di 64 anni a motivo di ittero a bilirubina non coniugata. In anamnesi ipertensione arteriosa in trattamento con Telmisartan, colecistectomia, rettocolite ulcerosa, poliposi gastrica, positività di HCV-Ab con HCV-RNA negativo, piastrinosi, Sindrome di Gilbert con livelli di bilirubinemia totale non superiori a 7 mg/dl; nove mesi prima, TC total-body negativa. Abbiamo riscontrato anemia (Hb 9,4 g/dl) con modesta reticolocitosi, senza individuare cause di emolisi cronica; nella norma sono risultati test di Coombs e G6PDH, Aptoglobina, così come ecografia addome e colonoscopia. La bilirubinemia totale ha raggiunto livelli superiori a 13 mg/dl, più coerenti con la diagnosi di Sindrome di Crigler-Najjar tipo 2. Abbiamo somministrato Fenobarbital alla dose di 50 mg/die, osservando una risposta soddisfacente. Dopo venti giorni la bilirubina totale è scesa a 3,10 mg/dl.

### Un caso di colite ischemica

V. Nesticò<sup>1</sup>, M. Lucia<sup>2</sup>, M. Conte<sup>1</sup>, D. Frontera<sup>1</sup>, S. Giancotti<sup>1</sup>, C. Pintaudi<sup>1</sup>, R. Cimino<sup>1</sup>

<sup>1</sup>Struttura Complessa di Medicina Generale, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro; <sup>2</sup>Struttura Complessa di Medicina e Chirurgia di Accettazione e d'Urgenza, Azienda Ospedaliera Pugliese Ciaccio, Catanzaro, Italy

Nel gennaio 2017 è giunta alla nostra osservazione una donna di 62 anni, per addominale diffuso di forte intensità, vomito, diar-

rea dapprima con feci liquide e successivamente ematiche; in anamnesi emicrania, ipercolesterolemia e terapia con *Simvastatina*. All'ingresso in Ospedale riscontro di febbre, leucocitosi neutrofila (GB 15.730 - n 91,5%) e di quadro endoscopico suggestivo di colite ischemica a livello del sigma. La TC addome eseguita in urgenza ha dato esito ad un referto coerente con l'ipotesi diagnostica, pur non rivelando occlusioni arteriose e/o venose mesenteriche. Il giorno successivo è stata eseguita pancolonoscopia, che ha consentito di localizzare nel colon discendente il quadro endoscopico precedentemente descritto; l'esame istologico da prelievo biptico ha confermato l'ipotesi diagnostica. Lo studio trombofilico e la ricerca laboratoristica volta ad individuare vasculiti sistemiche hanno dato esito negativo. Abbiamo somministrato *antibiotici* e terapia di supporto. La sintomatologia è andata in remissione. In assenza di altre cause evidenti abbiamo consigliato di sospendere la somministrazione di *Simvastatina*, il cui possibile ruolo patogenetico è descritto in letteratura.

### Trattamento riabilitativo in caso di tetano su paziente anziano

L. Ottaviani<sup>1</sup>, M. Bracaglia<sup>1</sup>, S. Proia<sup>1</sup>, G. Soave<sup>1</sup>, E. Antignani<sup>1</sup>, S. Fiore<sup>1</sup>

<sup>1</sup>Istituto Neurotraumatologico Italiano "Città Bianca", Veroli (FR), Italy

Uomo, di 85 anni, proveniente dalla Rianimazione di Ospedale del territorio per eseguire trattamento riabilitativo per esiti di recente infezione da *Clostridium Tetani*. Condizioni cliniche generali all'ingresso mediocri, disorientato nello spazio/tempo, ipertono muscolare diffuso ai 4 arti, disfagia mista, sarcopenia, ulcere da pressione in sede sacrale e ai talloni bilateralmente (II-IV stadio). Presenza di polipatologie. Terapia in atto al momento del ricovero: pantoprazolo 40 mg/die, enoxaparina sodica 0.4 ml/die, baclofene 25 mg tre volte/die, fluconazolo 200 mg/die, piperacillina/subactam 2.25 g tre volte/die, insulinoterapia. Nonostante la terapia con baclofene 25 mg tre volte/die, il paziente ha continuato a manifestare spasmi tetanici dolorosi che ne rallentavano il recupero riabilitativo. Esami ematici: lieve anemia ipocromica e lieve iponatremia. Dopo valutazione multidimensionale, è stata inserita terapia con diazepam gtt a dosi crescenti valutando la risposta del paziente. Lo stato clinico dello stesso è migliorato progressivamente: si sono ridotti gli spasmi e la rigidità muscolare somministrando 5 gtt di diazepam due volte/die, ore 8.00-13.00 e 7 gtt la sera, ore 20.00. Non si sono apprezzate variazioni circa lo stato mentale (maggiore sonnolenza, peggioramento della confusione mentale, effetti paradossi, etc.). Alla dimissione, P.V. ha raggiunto un discreto controllo del tronco da seduto in carrozzina, notevole riduzione della rigidità ai 4 arti, attenuazione degli spasmi muscolari dolorosi e sono inoltre, migliorati i tempi attentivi durante il trattamento logopedico senza però variazioni circa la consistenza del pasto.

### Una neoplasia molto subdola

L. Pavan<sup>1</sup>, M. Bambergia<sup>1</sup>, F. Rivolta<sup>1</sup>, R. Baiardini<sup>1</sup>

<sup>1</sup>Pneumologia, Abbiategrosso (MI), Italy

La pz M.C. di 80 aa è affetta da ipertensione arteriosa, iperuricemia ed osteoporosi. È stata valutata in Ambulatorio il 15/06/16 per broncopolmonite sin, trattata con ceftriaxone, poi levofloxacina ed in seguito cefditoren. Il 30/08 controllo Rxgrafico per febbre: riscontro di addensamenti bilaterali. La pz è stata quindi ricoverata il 09/09 in Pneumologia Abbiategrosso e sottoposta a broncoscopia: BAL con spiccata linfocitosi (CD4/CD8 0.2), es microbiologici negativi. Posta diagnosi di Organizing Pneumonia, è stata avviata terapia steroidea a 0.5 mg/Kg per l'osteoporosi ed il diabete meta-steroidico. Dimessa il 22/09, al controllo TC di fine ottobre gli addensamenti erano pressoché risolti. Il 25/10 improvvisa insorgenza di costrizione toracica, dispnea da sforzo ed ortopnea perciò è giunta in PS dove è stata diagnostica tromboembolia polmonare con angioTC torace, trattata subito con eparina. Siccome non è stato possibile individuare il sito di origine embolica, si è ricercata una neoplasia occulta: l'unica lesione riscontrata (ovarica dx) è stata giudicata benigna alla visita ginecologica con ecografia trans-vaginale. Dimessa il 17/11, alla PET total body in post-ricovero ipercaptazione solo da parte di millimetrica lesione polmonare (al

momento non tipizzabile), mentre gli altri addensamenti sono del tutto scomparsi. Si è quindi concluso per verosimile iniziale neoplasia polmonare con polmonite in organizzazione e tromboembolia polmonare paraneoplastiche. Vista età e comorbidità, non sono stati presi provvedimenti specifici per la neoplasia.

### Insufficienza respiratoria acuta in malattia rarissima

L. Pavan<sup>1</sup>, M. Bamberga<sup>1</sup>, F. Rivolta<sup>1</sup>, R. Baiardini<sup>1</sup>

<sup>1</sup>Pneumologia, Abbiategrasso (MI), Italy

Il pz M.T. di 53 aa, è affetto da mielopatia infiammatoria a genesi indeterminata condizionante tetraplegia, ad andamento recidivante e parzialmente remittente ai boli di steroide, non responsiva a Rituximab, plasmaferesi, immunoglobuline o steroidi in cronico, inoltre diabete mellito, pregressa epatite B e tubercolosi linfonodale. Ricoverato in Medicina H Magenta per diplopia e disfagia, ha sviluppato insufficienza respiratoria globale acuta in polmonite dx perciò è stato trasferito in Rianimazione, sottoposto ad intubazione oro-tracheale, ventilazione meccanica e poi a tracheotomia, inoltre trattato con piperacillina/tazobactam, claritromicina e boli di steroidi. Trasferito in Pneumologia Abbiategrasso, è stata esclusa disfagia, rimossa la cannula tracheotomica ed iniziata ventilazione non invasiva solo notturna. È stato necessario eseguire toilette bronchiale con broncoscopia una sola volta (secrezioni sterili) ma è stato impostato apparecchio per assistenza alla tosse con notevole beneficio. Dopo monitoraggio cardiorespiratorio notturno basale negativo è stata sospesa la ventilazione. Per sepsi da *S. haemolyticus* (da punta di catetere venoso tipo Midline) è stato impostato linezolid con successo. Dopo FKT il pz è stato mobilizzato su seggiolone polifunzionale con sistema basculante, poggia-testa e poggia-nuca. Si è prescritto ossicodone per gravi artralgie. È stato in seguito possibile dimettere il pz per ricovero presso la Riabilitazione Neuromotoria dell'Istituto don Gnocchi.

### Valutazione del controllo domiciliare della pressione arteriosa attraverso l'educazione all'automisurazione

L. Petramala<sup>1</sup>, F. Costantino<sup>1</sup>, F. Olmati<sup>1</sup>, A. Concistrè<sup>1</sup>, M. Celi<sup>1</sup>, C. Marinelli<sup>1</sup>, G. Iannucci<sup>1</sup>, C. Letizia<sup>1</sup>

<sup>1</sup>Dipartimento di Medicina Interna e Specialità Mediche, Università di Roma "Sapienza", Roma, Italy

**Premesse e Scopo dello studio:** L'ipertensione arteriosa è uno dei principali fattori di rischio cardiovascolare per alta morbilità-mortalità ed alta incidenza nella popolazione (~30%). Fondamentale nella gestione è il controllo ottimale dei valori pressori in corso di terapia farmacologica. Scopo del nostro studio è stato valutare in pazienti ipertesi l'andamento dei valori pressori domiciliari confrontando la misurazione clinica, il monitoraggio pressorio delle 24 ore e l'automisurazione, ricercando eventuali fattori che possono influire positivamente o negativamente il controllo pressorio e la compliance.

**Materiali e Metodi:** Nel periodo marzo-settembre 2016 sono stati arruolati 150 pazienti ipertesi [45%M), 55%F; età 53±15.9anni], valutati tramite questionario di autovalutazione, sottoposti a counseling per l'automisurazione della pressione arteriosa.

**Risultati:** Il 54% dei pazienti [35M, 46F] ha completato lo studio riportando il questionario dell'automisurazione (Gruppo A), mentre il 46% dei soggetti non ha completato la raccolta dati [31M, 38F] (Gruppo B). I soggetti del gruppo A mostravano una maggiore prevalenza di ipertensione arteriosa di III grado rispetto al Gruppo B (4.93% vs 0.5%; p <0.05). La valutazione dei valori pressori ha evidenziato come i dati ottenuti dal 5° giorno con l'automisurazione risultano paragonabili ai valori rilevati attraverso l'ABPM.

**Conclusioni:** La valutazione del controllo della pressione arteriosa, in corso di terapia, risulta fondamentale strumento per confermare la reale efficacia del trattamento.

### Colangite biliare primitiva, anticorpi anti-mitocondrio positiva: diagnosi ritardata e spesso difficoltosa

G. Prampolini<sup>1</sup>, C. Catellani<sup>1</sup>, P.G. Giuri<sup>1</sup>

<sup>1</sup>UIM di Medicina Interna, Ospedale S. Anna, Castelnovo Monti (RE), Italy

Le complicanze legate all'ipertensione portale compaiono in ge-

nerie nelle fasi tardive delle epatopatie autoimmuni, oggi rare.

**Caso clinico:** Uomo 79 aa accede in PS per ematemesi. APR: maculopatia, ipertensione arteriosa. Agli ematochimici anemia, leucocitosi, ipoalbuminemia con inversione del rapporto albumina/globuline mia, piastrinopenia, rialzo della bilirubina, transaminasi e PCR. Esegue EGDS con riscontro di ipertensione portale e varici esofagee. Intrapresa terapia con PPI per via endovenosa. L'ecografia e la TAC addome evidenziano: fegato con contorni lobulati-bozzuti con lesione focale al VII segmento con placche calcifiche interne. Linfomegalia, splenomegalia e faldina ascitica. Gli ematochimici ripetuti confermano il quadro di cirrosi epatica, con elevati valori di fosfatasi alcalina. Il paziente non è epatopatico noto (virus negativi) e non ha storia di potus. Markers tumorali negativi. Riscontro di positività ad alto titolo degli AMA per il tipo M2 confermata con immunodosaggio. Positivi anche gli ANA con quadro speckled citoplasmatico mitocondria-like. Veniva posta diagnosi di Colangite Biliare Primitiva AMA positiva in fase di scompenso ascitico complicata da ipertensione portale e da lesione focale epatica di incerta natura. Gli accertamenti eseguiti per la lesione epatica (RMN e biopsia) sono risultati negativi.

**Conclusioni:** La cirrosi epatica conclamata rappresenta l'ultima fase della storia naturale di questa patologia, e le complicanze dell'ipertensione portale sono raramente il sintomo d'esordio della malattia, pertanto la diagnosi spesso è difficoltosa.

### Antibiotici a largo spettro ed infezione da *Clostridium difficile* in paziente anziano pluripatologico

G. Prampolini<sup>1</sup>, C. Catellani<sup>1</sup>, A.B. Milani<sup>1</sup>, P.G. Giuri<sup>1</sup>

<sup>1</sup>UIM di Medicina Interna, Ospedale S. Anna, Castelnovo Monti (RE), Italy

*Clostridium difficile* (*C. difficile*) è un batterio anaerobio G+ che vive nell'intestino umano e fa parte della flora batterica. Vive anche nel suolo, acqua e feci animali. Tra i fattori di rischio in grado di scatenare l'infezione l'uso di antibiotici a largo spettro come beta-lattamici, cefalosporine e fluorochinoloni.

**Caso clinico:** Maschio 82 anni. APR: BPCO enfisematosa e interstiziopatia in OLT domiciliare. Cardiopatia ipertensiva. Diabete mellito tipo 2. IRC stadio IV. Recente infezione da *C. difficile* trattata con metronidazolo. Giungeva c/o la nostra Medicina in ottobre per polmonite, trattata con Pip/Taz ottenendo la risoluzione del quadro. In dicembre ricoverato c/o la Nefrologia per peggioramento del filtrato renale; trattato con Ceftriaxone per febbre e diarrea. L'esame su feci, risultava positivo per *Salmonella* spp. indi trasferito c/o RSA per la prosecuzione delle cure. Durante la degenza ricompariva diarrea e febbre. Le emocolture ed il tampone nasale documentavano la positività per *S. aureus* MRSA e *C. difficile* (antigene e tossine) su feci. Si intraprendeva terapia con Metronidazolo e Vancomicina. Nei giorni a seguire la clinica migliorava fino alla risoluzione del quadro. Il paziente decedeva qualche settimana dopo.

**Conclusioni:** L'infezione da *C. difficile* rappresenta una delle complicazioni iatrogene peggiori per l'anziano con insufficienza renale. Incide sulla durata della degenza ed impone misure di Infection Control non sempre attuabili (isolamento da contatto, stanza singola, massima disinfezione dei materiali, avvertenze per il personale e per i parenti).

### Il Wellcare: una best practice in oncologia

G. Rinaldo<sup>1</sup>, M. Di Resta<sup>2</sup>, A.M. Iannotta<sup>1</sup>, G. Di Santo<sup>1</sup>

<sup>1</sup>UOC di Medicina Interna e Specialistica, P.O. "Sant'Alfonso Maria de' Liguori", Sant'Agata De' Goti (BN); <sup>2</sup>Direzione Sanitaria, Casa di Cura "Alma Mater S.p.A., Villa Camaldoli", Napoli, Italy

**Premessa:** Nei molti ambiti della salute/malattia, interpretata dal punto di vista biomedico psichico e sociale, il "wellcare" può incidere positivamente sulla percezione dei bisogni fondamentali e sull'aderenza prescrittiva, soprattutto in oncologia, non sottovalutando l'individualità e unicità del paziente/utente nelle sue varie espressioni sociali, culturali e patologiche.

**Materiali e Metodi:** Revisione delle diverse esperienze presenti nella letteratura scientifica per la ricerca del modello più valido del "prenderci cura" nei vari aspetti (bio-psico-sociale) della salute/malattia in oncologia.



**Risultati:** Il paziente oncologico vive momenti di drammaticità e dipendenza psicologica unici e pertanto il “wellcare”, è un neologismo coniato per definire modalità terapeutico-comportamentali atte a soddisfare, in ospedale come sul territorio, il crescente bisogno di aiuto da parte del paziente oncologico e contemporaneamente di incidere positivamente sull’aderenza prescrittiva.

**Conclusioni:** Il “wellcare”, in definitiva, è la ricerca di nuove strade, di equilibri accettabili, di vie di uscita quando la malattia nella sua molteplicità espressiva, diventa soggettivamente insostenibile. Non si vuole dimenticare, peraltro, lo specifico carattere educativo che deve contraddistinguere il modo di accompagnare il paziente/utente nel suo percorso di presa di coscienza, miglioramento e/o acquisizione di nuove strategie per fronteggiare con consapevolezza e ritrovata serenità le modificate dinamiche della propria esistenza.

#### La diagnosi ed il trattamento della dissezione aortica: aspetti diagnostici e medico-legali

G. Ranaldo<sup>1</sup>, M. Di Resta<sup>2</sup>, G. Malgieri<sup>3</sup>, G. Di Santo<sup>1</sup>, P. Zangani<sup>4</sup>

<sup>1</sup>UOC di Medicina Interna e Specialistica, P.O. “Sant’Alfonso Maria de Liguori”, Sant’Agata De Goti (BN); <sup>2</sup>Direzione Sanitaria, Casa di Cura “Alma Mater S.p.A., Villa Camaldoli”, Napoli; <sup>3</sup>Centro per l’ipertensione ASL BN1, UOC di Cardiologia, P.O. “Sant’Alfonso Maria de Liguori”, Sant’Agata De Goti (BN); <sup>4</sup>Dipartimento di Medicina Sperimentale, Area Medicina Legale, Università degli Studi della Campania “Luigi Vanvitelli”, Caserta (CE), Italy

**Premessa:** La dissezione aortica è una delle patologie più gravi dell’aorta toraco-addominale, caratterizzata dalla separazione degli strati della tonaca media con formazione di due lumi nei quali si crea una nuova circolazione ematica. L’incidenza della dissezione aortica acuta è di 5,2/milione di popolazione all’anno, il picco massimo è compreso tra i 50 e 65 anni di età. Il rapporto tra maschi e femmine è di 2-3: 1.

**Cause:** La sua patogenesi riconosce come *primum movens* la formazione di una lacerazione a livello dell’intima (foro d’ingresso), attraverso cui il sangue penetra slaminando le tuniche della media. Lo slaminamento delle tuniche della media decorre a spirale lungo l’aorta costituendo due lumi, uno vero e l’altro falso. Il processo disseccativo lungo il suo percorso coinvolge l’origine dei vasi che nascono dall’aorta. I vasi interessati con maggior frequenza sono: il tronco anonimo, la succlavia sinistra e l’arteria renale sinistra. Vari fattori concorrono alla genesi delle dissezioni aortiche con differente incidenza e associazione. L’ipertensione arteriosa rappresenta senza dubbio la causa più frequente, infatti l’incidenza riportata in letteratura è del 75%; sembra che tale patologia agisca provocando una degenerazione da stress della parete con conseguente alterazione della struttura.

**Conclusioni:** Scopo del presente contributo è evidenziare le difficoltà nella diagnosi differenziale con altre condizioni e nel trattamento, soprattutto riguardo al timing dello stesso, che spesso sono fonte di contenzioso medico-legale, sia in ambito penalistico che civilistico.

#### Le epatiti croniche: proposta di linee guida per la valutazione medico-legale nell’ambito dell’invalidità civile

G. Ranaldo<sup>1</sup>, M. Di Resta<sup>2</sup>, V. Cioffi<sup>1</sup>, S. Iacobelli<sup>1</sup>, G. Di Santo<sup>3</sup>, P. Zangani<sup>4</sup>

<sup>1</sup>UOC di Medicina Interna e Specialistica, P.O. “Sant’Alfonso Maria de Liguori”, Sant’Agata De Goti (BN); <sup>2</sup>Direzione Sanitaria, Casa di Cura “Alma Mater S.p.A., Villa Camaldoli”, Napoli; <sup>3</sup>UOC di Medicina Interna e Specialistica, P.O. “Sant’Alfonso Maria de Liguori”, Sant’Agata De Goti (BN); <sup>4</sup>Dipartimento di Medicina Sperimentale, Area Medicina Legale, Università degli Studi della Campania “Luigi Vanvitelli”, Caserta (CE), Italy

Le malattie epatiche sono un problema di rilevanza mondiale sia dal punto di vista epidemiologico, clinico che socio-sanitario. Secondo le stime dell’Organizzazione Mondiale della Sanità, circa il 70% dei casi è dovuto ad infezioni virali e circa 240 milioni di persone sono infette da virus dell’epatite B e circa 150 milioni da virus dell’epatite C, con una mortalità complessiva di quasi 2 milioni di casi/anno. Pertanto, è molto frequente che il medico si trovi a valutare un soggetto affetto da una patologia epatica nell’ambito dell’invalidità civile. A tal proposito, il DM 5 febbraio 1992

ha individuato una tabella in cui per ogni patologia è assegnata una percentuale di invalidità. Le predette tabelle prendono in esame le affezioni dell’apparato digerente con indicazioni metodologiche per la valutazione dei deficit funzionali in base alla gravità, identificando nella prima parte quattro classi di compromissione funzionale. Tuttavia, le voci che hanno un riferimento specifico all’epatopatia cronica, o che possono essere correlate ad essa, sono molto ridotte e ciò crea non poche difficoltà nell’inquadramento di tutti i casi di epatite. Gli Autori, vista l’evoluzione scientifica e la necessità di rivedere le percentuali previste nella tabella per la valutazione dell’epatite cronica, cercano di definire alcune indicazioni utili / linee guida per la valutazione medico-legale di questo tipo di affezioni, sulla base di alcuni studi effettuati.

#### A case of gastrointestinal bleeding in patient on dual antiplatelet therapy with aspirin and clopidogrel

L. Ranieri<sup>1</sup>, F. Mastroianni<sup>1</sup>, G. Baldassarre<sup>1</sup>, M. Amodio<sup>1</sup>, L. Bonfrate<sup>2,3</sup>, M. Errico<sup>1</sup>

<sup>1</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti (BA); <sup>2</sup>Geriatric Unit, Miulli Hospital, Acquaviva delle Fonti (BA); <sup>3</sup>Department of Biomedical Sciences and Human Oncology, University of Bari, Italy

**Background and Aims:** Antiplatelet therapy (AT) is used for the secondary prevention of acute coronary syndrome (ACS) and ischemic stroke, especially after coronary intervention. However, dual AT is associated with gastrointestinal bleeding (GIB), which is a life-threatening complication. We report the case of a 82 yrs old man with melaena and severe anemia.

**Methods and Results:** His medical history included ACS (PCI performed 13 years ago), hypertension, and diabetes. Two months before the admission at our Unit, the patient presented at the hospital with chest pain, and dyspnea. The patient underwent PCI because of ACS and blood transfusion, and he was given clopidogrel and aspirin. After, the patient suffered from intense fatigue and melaena, and was hospitalised.

He underwent colon capsule endoscopy, which revealed multiple vascular ectasia with red spots in the jejunum.

**Conclusions:** Gastrointestinal bleeding is a relatively common complication in patients receiving antiplatelet therapy, but its occurrence increases in the presence of predisposing factors. A complete workup is mandatory to promptly recognize this event which is associated with an increased risk of recurrent ischemic events and mortality.

#### Esperienza sugli effetti di un preparato a base di *Crataegus oxyacantha*, *Melissa officinalis* e magnesio sulla variabilità pressoria

R.A.N. Ranucci<sup>1</sup>, V. Luiso<sup>2</sup>, M. Dorato<sup>1</sup>

<sup>1</sup>Medicina Interna P.O. “S. Maria delle Grazie”, Pozzuoli (NA); <sup>2</sup>Medicina Interna SUN, Napoli, Italy

**Premesse e Scopo dello studio:** La fisiologica variabilità pressoria (VP) può aumentare negli ipertesi. E’ dimostrato il rapporto tra VP, danno d’organo ed eventi CV. Si può valutare come deviazione standard (DS) rispetto alla PAS e PAD media. E’ noto il rapporto tra fattori psicologici, ipertensione e VP “a breve termine”. Abbiamo utilizzato un integratore alimentare per l’ansia con *Crataegus oxyacantha*, *Melissa officinalis* e Magnesio per valutarne l’effetto su PA e VP.

**Materiali e Metodi:** Sono stati studiati 56 ipertesi di grado 1 e 2 senza altre patologie e fattori di rischio, 32 e 24, età 21-62 anni, in trattamento farmacologico soddisfacente, con DS sistolica media diurna di 18,6 e DS diastolica media diurna di 15,4. Con un ABP Spacelabs 90207 sono stati eseguiti un MAPA iniziale e un MAPA a 3 settimane, in corso di trattamento con l’integratore a dose di 1 cp alle ore 8 e 15.

**Risultati:** Nei MAPA a 3 settimane in fase diurna c’è stata una diminuzione della PAS media di 2,7 mmHg, della PAD media di 1,6 mmHg, della DS sistolica media di 13,8 (-4,8) e della DS diastolica media di 14,1(-1,3).

**Conclusioni:** Le riduzioni medie diurne della DS sistolica e diastolica dimostrano l’importanza degli aspetti psicologici e del ca-

rico allostatico nell'iperteso. Risulta promettente l'utilizzo di un integratore alimentare ad azione ansiolitica nell'iperteso con elevata variabilità pressoria per l'efficacia, l'ottima compliance e la scarsa influenza sulla vita relazionale e lavorativa.

### Rilievi sulla qualità di vita percepita dai pazienti affetti da broncopneumopatia cronica ostruttiva

A. Romeo<sup>1</sup>, E. Cristaldi<sup>2</sup>, F. Giacalone<sup>2</sup>, O. Grasso<sup>2</sup>, S. Intravaia<sup>2</sup>, S. Marturana<sup>2</sup>, S. Platania<sup>2</sup>, R. Riscicato<sup>2</sup>

<sup>1</sup>Psicologa P.O. Augusta ASP, Siracusa; <sup>2</sup>UOC Medicina Interna, P.O. Augusta ASP, Siracusa, Italy

**Premesse e Scopo dello studio:** La BroncoPneumopatia Cronica Ostruttiva (BPCO) è una malattia respiratoria cronica, progressivamente ingravescente, ed invalidante. Nostro obiettivo è rilevare l'incidenza della BPCO sulla qualità di vita dei pazienti ospedalizzati.

**Materiali e Metodi:** Il benessere soggettivo del paziente connesso allo stato di salute della persona, è stato rilevato attraverso il questionario SAT-P (Satisfaction Profile). Il campione è costituito da 12 soggetti (10 uomini e 2 donne), età media 71 anni, affetti da BPCO lieve-moderata (GOLD 2-3). Il gruppo di controllo è costituito da 12 persone non affette da BPCO e non ospedalizzate. Esclusi soggetti con demenza senile, disturbi psichiatrici, depressione maggiore, capacità cognitive compromesse, neoplasie.

**Risultati:** Il gruppo dei soggetti con BPCO ha un punteggio medio di 58,3 mentre il gruppo di controllo di 75,2 quindi il gruppo dei pazienti affetti da BPCO è caratterizzato da minore soddisfazione circa la qualità di vita. Per una lettura più dettagliata dei risultati sono poi stati analizzati i singoli fattori: funzionalità psicologica, funzionalità fisica, lavoro, sonno/alimentazione/tempo libero, funzionalità sociale. Ciascuno percepito come meno soddisfacente con maggior incidenza nella stabilità emozionale, fiducia in se stessi, autonomia psicologica.

**Conclusioni:** Dai risultati si può confermare una notevole riduzione della soddisfazione della qualità di vita dei pazienti con BPCO. Appare necessario, dunque, un intervento multidisciplinare che non trascuri la presenza di psicologi onde evitare la riduzione di aderenza a terapie e programmi riabilitativi.

### Quando c'è un farmaco di troppo: una gravissima acidosi lattico-metabolica da metformina in paziente in pluriterapia farmacologica

M. Sacco<sup>1</sup>, M. Carafa<sup>1</sup>, M. Di Palo<sup>1</sup>, V. Massari<sup>1</sup>, O. Nannola<sup>1</sup>, L. Piccenna<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli, Italy

**Introduzione:** L'acidosi lattica da metformina rappresenta una problematica sottostimata. Il rischio aumenta esponenzialmente col numero di farmaci coassunti, come nel caso clinico qui esposto.

**Caso clinico:** Giunge nel nostro reparto un uomo di 59 anni, diabetico iperteso fumatore dislipidemico, le cui condizioni all'arrivo in p.s. avevano richiesto l'esecuzione di dialisi di emergenza (gravissima acidosi lattico-metabolica con pH 6.81 e insufficienza renale acuta con alterazione dello stato di coscienza e dispnea). In anamnesi, si rileva che il paziente, oltre ad assumere in cronico ben 11 farmaci (metformina 2500 mg/die, omeprazolo, telmisartan, barnidipina, acidi omega-3, asa, ezetimibe/simvastatina, alfososina, alogliptin/pioglitazone), aveva eseguito ulteriore terapia per 7 gg. con rifampicina, ciprofloxacina, ketoprofene, oltre a due gg. di fosfomicina, sulla base di una visita urologica che aveva diagnosticato una prostatite. Le condizioni del paziente sono rapidamente migliorate con 4 sedute dialitiche, con ripristino della funzionalità renale e normalizzazione dell'equilibrio acido-base.

**Discussione:** La probabile sequenza degli eventi è consistita in insufficienza renale acuta indotta da uno o più farmaci di nuova assunzione, con conseguente induzione di aumento dei livelli ematici della metformina e conseguente drammatica acidosi lattico-metabolica.

**Conclusioni:** I pazienti in terapia con metformina necessitano di particolare attenzione nella prescrizione farmacologica con particolare attenzione per i Fans e i farmaci che interagiscono con il citocromo P450.

### "L'uomo è misura di tutte le cose": potenziare la sicurezza dei nuovi anticoagulanti orali

M. Sacco<sup>1</sup>, L. De Magistris<sup>1</sup>, M. Di Palo<sup>1</sup>, R. Gente<sup>1</sup>, L. Guadagno<sup>1</sup>, F. Lionello<sup>1</sup>, A. Magliocca<sup>2</sup>, V. Massari<sup>1</sup>, D. Petito<sup>1</sup>, L. Piccenna<sup>1</sup>, A. Schiazzano<sup>1</sup>, P. Morella<sup>1</sup>

<sup>1</sup>U.O. Medicina d'Urgenza, AORN A. Cardarelli, Napoli; <sup>2</sup>AOU Federico II Napoli, Italy

**Caso clinico:** Un uomo di 70 anni, viene condotto in PS per stato confusionale acuto. In anamnesi FA cronica ed ipertensione arteriosa in terapia con beta bloccanti, diuretici e NAO (apixaban 5 mg BID); TC cranio negativa; agli esami di laboratorio: CrCl 67ml/min, sodiemia (109 mEq/L), modesto allungamento del PT-INR (1.68). Il figlio riferisce che durante la mattina il paziente ha assunto circa 10 compresse di apixaban. In assenza di complicanze emorragiche, si determina l'effettiva concentrazione plasmatica del farmaco tramite dosaggio quantitativo calibrato (effettuato presso altra struttura) che rileva livelli circolanti molto elevati di apixaban. Si procede, dunque, alla correzione dell'iposodiemia e al vigile follow-up clinico e laboratoristico del paziente con sospensione del farmaco. Dopo 5 giorni, a concentrazione plasmatica di apixaban nel range terapeutico il paziente viene dimesso con piena risoluzione della sintomatologia di ingresso.

**Conclusioni:** Il dosaggio quantitativo dei NAO viene riservato ad oggi solo a casi particolari (es. interventi chirurgici d'urgenza). Tuttavia sembra razionale estenderne l'impiego per ottimizzare la posologia nei pazienti fragili a più elevato rischio emorragico, al fine di aumentarne ulteriormente la "safety" rispetto a quanto emerso dagli studi di registro e dai dati "real life".

### Broncopneumopatia cronica ostruttiva: la sospensione del fumo è la terapia più efficace, due casi clinici

A. Salemi<sup>1</sup>, E. Giovanna<sup>1</sup>, F. Mariagrazia<sup>1</sup>, L. Ghattas<sup>1</sup>, P. Montanari<sup>1</sup>, L. Poli<sup>1</sup>, L. Giampaolo<sup>1</sup>, D. Tirota<sup>1</sup>, V. Durante<sup>1</sup>

<sup>1</sup>UO Medicina Interna, Ospedale di Cattolica, Cattolica (RN), Italy

**Premesse:** Il fumo è la prima causa di BPCO; in tutte le linee-guida la sua sospensione costituisce il cardine della terapia per rallentare la progressione e ridurre le riacutizzazioni.

**Casi clinici:** Due pazienti forti fumatori (30-35 pacchi/anno) affetti da BPCO, un uomo del 1939 e una donna del 1943, vengono ripetutamente ricoverati nel nostro Reparto per riacutizzazioni di BPCO a partire dal 2011. Nella terapia di dimissione, oltre ai broncodilatatori e steroidi inalatori, si prescriveva la cessazione del fumo che i pazienti non osservavano. Ogni riacutizzazione si presentava in forma più grave, con ipercapnia scompensata che richiedeva NIV, nonostante la riferita aderenza alla terapia inalatoria. Si proponeva allora un approccio farmacologico per la disassuefazione dal fumo, con nicotina cerotto+gomme da masticare. Alle visite ambulatoriali post-dimissione si rafforzava il consiglio della sospensione e se ne verificava la persistenza. Nel corso degli ultimi due anni si assisteva a 2 riacutizzazioni della donna e a una dell'uomo, in forma leggera e gestibili a domicilio.

**Risultati:** La sospensione del fumo, e non la sola terapia inalatoria con broncodilatatori e steroidi, ottenuta per entrambi i pazienti con l'associazione di più formulazioni di nicotina, portava ad una riduzione significativa delle riacutizzazioni di BPCO.

**Conclusioni:** Per i pazienti con frequenti riacutizzazioni di BPCO la sospensione del fumo rimane tuttora il cardine della terapia che va perseguita, con colloqui ambulatoriali, supporti psicologici, e anche con farmaci (nicotina, Bupropione, Nortriptilina, Vareniciclina).

### La gestione della sorveglianza sanitaria con strumenti informatici: il caso pratico di un gruppo d'Aziende ove promuovere la salute attraverso i dati sanitari anonimi collettivi della sorveglianza sanitaria

E. Santacroce<sup>1</sup>, L. Rutigliano<sup>1</sup>, P. Santantonio<sup>1</sup>

<sup>1</sup>IGEAM, Roma, Italy

La gestione dei rischi occupazionali e della sorveglianza sanitaria in conformità ai requisiti del D.Lg. 81/08, richiede, oltre alle competenze tecniche dei professionisti coinvolti, anche capacità gestionali per l'organizzazione, il coordinamento e il monitoraggio

delle attività compresi i dati sanitari derivanti dalle statistiche anonime collettive. L'onere gestionale risulta amplificato in organizzazioni complesse, in particolare per la sorveglianza sanitaria dei lavoratori, coinvolgendo in maniera attiva una pluralità di soggetti tra medici, segreterie organizzative, responsabili dei lavoratori. Mostriamo il caso pratico di introduzione e utilizzo di un sistema informatico per la gestione della sicurezza e della sorveglianza sanitaria in un gruppo di aziende, con l'indicazione dei miglioramenti apportati ai processi attraverso la gestione informatizzata, ma anche delle criticità riscontrate e delle proposte di miglioramento per superare tali criticità. Il supporto informatico consente al medico competente di elaborare statistiche mediche utili non solo per aggiornare i protocolli sanitari ma anche per valutare quali programmi per la promozione della salute, e quindi per il benessere psicofisico dei lavoratori nonché per la prevenzione medica, si possono implementare dando priorità a quelle campagne informative ove il rischio salute è maggiore.

### Arterite di Horton femorale

A. Saturni<sup>1</sup>, E. Giannini<sup>1</sup>, L. Calcabrini<sup>1</sup>, S. Alborino<sup>2</sup>, R. Catalini<sup>1</sup>

<sup>1</sup>U.O. Medicina, Ospedale Generale Provinciale di Macerata;

<sup>2</sup>U.O. Radiologia Ospedale Generale Provinciale di Macerata, Italy

**Premesse:** L'arterite di Horton è una vasculite dei grossi vasi, più frequente dopo i 50 aa; coinvolge le branche aortiche, in particolare i vasi epiaortici extracranici.

**Materiali:** Uomo di 71 aa, iperteso; cefalea bitemporale e claudicatio a 30 mt per dolore al polpaccio sinistro. No tabagismo, lieve ipercolesterolemia, no diabete. Terapia: atorvastatina 20 mg, doxazosina 4 mg. Esame fisico: cordone arterioso temporale sinistro, iposfigmia marcata tibiali ant. e post. a sinistra, lieve a destra. Esami ematici: VES 100; PCR 140 mU/ml. E.C. Doppler art. temporale: alone ipoecogeno perivasale, arteria tortuosa, flusso ridotto. E.C. Doppler arti inf.: destra: fem. superficiale occlusa fino al terzo distale; sinistra: fem. superficiale con stenosi severa distale, stenosi moderata in poplitea. Angio - TC: conferma esame E.C. Doppler. Biopsia art. temporale: flogosi acuta e cronica intra/periaortica con necrosi e cellule giganti. PET total body: ipermetabolismo bilaterale degli interi assi femoro-poplitei. Angioplastica fem. e poplitea sinistra: durante la PTA si preleva con aterotomo materiale dall'art. fem. superficiale. Istologia: tessuto fibroso con calcificazioni e flogosi cronica con granulomi e cellule giganti. Si avviano prednisone 50 mg/die e clopidogrel.

**Risultati:** PET dopo 9 mesi di terapia steroidea: nessuna area di ipermetabolismo; paziente asintomatico.

**Conclusioni:** Singolare e ben documentato caso di a. di Horton; ottima risposta al prednisone. Dopo 16 mesi il quadro clinico ed E.C. Doppler è stazionario, il paziente non claudica, VES e PCR sono normali.

### Iposodiemia severa e cervicaglia

A. Saturni<sup>1</sup>, E. Giannini<sup>1</sup>, L. Calcabrini<sup>1</sup>, R. Catalini<sup>1</sup>

<sup>1</sup>U.O. Medicina, Ospedale Generale Provinciale di Macerata, Italy

**Premesse:** Iposodiemia severa: NA < 115 mEq/l. L'iposodiemia si classifica in ipovolemica, euvolemica ed ipervolemica.

**Materiali:** Donna di 78 aa, BMI 24, affetta da ipertensione, artrosi polidistrettuale, osteoporosi, no tabagismo. Cervicaglia severa, capogiri e astenia da 30 giorni; avviato a domicilio betametasona im. Terapia abituale: zofenopril-HCT, nebivololo, risedronato. Esame fisico: no disidratazione, no edemi; rallentamento motorio ed eloquio impacciato, lieve diplopia. Laboratorio: Na 106 mEq/l, VES 56, PCR 35 mg/dl. Sodiuria, osmolarità ur., creatinina, TSH, cortisolemia e ACTH regolari. TC encefalo senza mdc, Rx torace, eco-addome e ginecologica, TC torace-addome con mdc negativi; visita oculistica: paresi del VI n. cranico destro. Successiva comparsa di dolore al cuoio capelluto. E.C. Doppler a. temporale: alone ipoecogeno perivasale, flusso demodulato. Angio-RM e angio-TC cerebrale: dissecazione bilaterale delle carotidi interne nel tratto intrapetroso sino al sifone. Biopsia a. temporale: flogosi cronica, granulomi e cellule giganti. PET total body: ipercaptazione aorta toracica, succlavie e carotidi. Terapia: prednisolone 1 mg/kg/die; enoxaparina 6000 UI bis in die.

**Risultati:** Dopo 4 mesi: prednisolone 38 mg/die, no aree di iper-

metabolismo, NA 135 mEq/l; dopo 8 mesi: prednisolone 12 mg/die, PCR 1,1 VES 18, Na 138 mEq/l, no cervicaglia, no diplopia.

**Conclusioni:** A. di Horton è una rara causa di SIADH; il coinvolgimento delle carotidi extra ed intracraniche spiega la cervicaglia, la diplopia ed il quadro di SIADH con iposodiemia euvolemica.

### Nuovi anticoagulanti orali e pazienti anziani: la nostra esperienza

F.S. Serino<sup>1</sup>, L. Di Donato<sup>1</sup>, M. Scanferlato<sup>1</sup>

<sup>1</sup>UOC Medicina Generale, Portogruaro (VE), Italy

**Premessa e Scopi dello studio:** La terapia anticoagulante (TAO) ha avuto nei dicumarolici il riferimento farmacologico per molti anni. Nell'anziano è stato osservato un sottoutilizzo della TAO legato alle difficoltà gestionali e alla loro limitata maneggevolezza. L'immissione sul mercato dei nuovi anticoagulanti orali (NAO), la mancanza della necessità di monitoraggio di laboratorio e la scarsa interazione con altri farmaci e cibi ne hanno migliorato l'approccio.

**Materiali e Metodi:** Sono stati identificati 50 pazienti a cui è stato prescritto un NAO suddivisi per età > 75 anni e fibrillazione atriale (FA). Circa il 50% aveva anche scompenso cardiaco; il 30% anche diabete; il 20% anche insufficienza renale. Sono stati analizzati l'aderenza terapeutica e la riduzione delle dosi da modificazione della clearance della creatinina.

**Risultati:** Meno del 10% ha dovuto ridurre la dose iniziale per peggioramento dell'insufficienza renale. Più del 90% ha assunto le dosi nei modi e nei tempi prescritti e meno del 10% ha saltato almeno una dose.

**Conclusioni:** L'emivita breve e la mancata necessità di monitoraggio sono caratteristiche innovative, anche se, in caso di scarsa aderenza alla terapia aumentano il rischio trombotico. L'aumento del rischio emorragico in caso di funzionalità renale facilmente deteriorabile, comune negli anziani, necessita di un controllo della creatinina all'inizio del trattamento e poi ogni 6 mesi ma probabilmente più ravvicinato, specie in quelle condizioni cliniche laddove si possa prevedere il declino (riacutizzazioni di malattie croniche, disidratazione e uso concomitante di altri farmaci).

### Associazione tra ipoglicemizzanti orali e cancro

I. Spagnoletti<sup>1</sup>, A. Spagnuolo<sup>1</sup>, C. Corbo<sup>1</sup>, A. Campagna<sup>1</sup>, A. Febraro<sup>1</sup>

<sup>1</sup>U.O. Oncologia, Ospedale Sacro Cuore di Gesù FBF, Benevento, Italy

**Premesse:** Nel complesso rapporto tra diabete e cancro occorre considerare anche il ruolo della terapia ipoglicemizzante. I farmaci che inducono un aumento di insulina danno un maggior rischio di tumore rispetto a quelli che riducono l'iperinsulinemia. Analizziamo nella nostra casistica l'associazione tra diabete, farmaci ipoglicemizzanti e andamento della malattia neoplastica.

**Materiali e Metodi:** Abbiamo analizzato retrospettivamente i pazienti affetti da neoplasia in trattamento chemioterapico negli anni 2015 e 2016. Dei 1100 pazienti, 300 avevano un'anamnesi positiva per diabete mellito di tipo II ed erano in terapia farmacologica. **Risultati:** Dei 300 pazienti analizzati, il 30% assumeva sulfaniluree, il 20% metformina, il 5% glitazoni, il 25% terapia insulinica, il restante assumeva ipoglicemizzanti orali in associazione all'insulina. I pazienti in terapia con sulfaniluree presentavano un'evoluzione più rapida della malattia rispetto agli altri sottogruppi.

**Conclusioni:** I nostri dati confermano la maggior aggressività dei tumori sviluppati in pazienti in trattamento con sulfaniluree. Le persone con diabete, affette da un tumore rappresentano dunque, un gruppo a rischio particolare, che va trattato in maniera ottimale su tutti e due fronti, per ridurre la mortalità da tumore.

### Utilizzo dei nuovi anticoagulanti in oncologia: case report

A. Spagnuolo<sup>1</sup>, I. Spagnoletti<sup>1</sup>, C. Corbo<sup>1</sup>, A. Campagna<sup>1</sup>, A. Febraro<sup>1</sup>

<sup>1</sup>U.O. Oncologia, Ospedale Sacro Cuore di Gesù FBF, Benevento, Italy

Il tromboembolismo venoso (TEV) rappresenta una complicanza frequente nei pazienti affetti da cancro e un'importante causa di morbilità e mortalità. Le eparine a basso peso molecolare (EBPM) costituiscono lo standard terapeutico per il trattamento del TEV nei pazienti oncologici. In questo report descriviamo il caso di una

donna di 56 anni affetta da cancro ovarico che, ad un primo episodio di TEV il cui trattamento ha previsto l'utilizzo iniziale di EBPM seguito dall'anticoagulazione con anticoagulanti orali, ha sviluppato una recidiva tromboembolica durante il follow-up. La scarsa aderenza della paziente al trattamento antitrombotico legata alle iniezioni sottocutanee quotidiane e agli ematomi cutanei nonché al costante monitoraggio ematico dell'INR rispettivamente per le EBPM e per gli antagonisti della Vitamina K, ha condotto all'utilizzo dei nuovi anticoagulanti orali (NOAC). Ad oggi i NOAC non sono indicati per l'utilizzo nei pazienti con cancro, quanto descritto sopra rappresenta un approccio non comune che noi discutiamo.

### Tromboembolismo venoso e cancro ovarico: case report

A. Spagnuolo<sup>1</sup>, I. Spagnoletti<sup>1</sup>, C. Corbo<sup>1</sup>, A. Campagna<sup>1</sup>, A. Febbraio<sup>1</sup>

<sup>1</sup>U.O. Oncologia, Ospedale Sacro Cuore di Gesù FBF, Benevento, Italy

Il tromboembolismo venoso (TEV) rappresenta una delle principali cause di morbilità e mortalità nei pazienti affetti da cancro. Il TEV costituisce la seconda causa di morte nei pazienti oncologici i quali presentano una probabilità fino a sei volte maggiore di sviluppare TEV rispetto ai pazienti senza cancro. In questo report descriviamo il caso di una donna di 62 anni che ha manifestato dolore toracico simil-coronarico e differenti esami diagnostici hanno condotto alla diagnosi di embolia polmonare che, a sua volta, ha portato all'identificazione di un cancro ovarico. La paziente è risultata asintomatica fino alla diagnosi di embolia polmonare ragion per cui una neoplasia asintomatica è stata considerata come una possibile causa. Nei pazienti anziani non è raro che la trombosi venosa profonda o l'embolia polmonare costituiscono la prima manifestazione clinica di cancro. Pertanto, in tutti i pazienti di età > 60 anni affetti da tromboembolia venosa spontanea, è bene eseguire uno screening accurato.

### Correlazione tra valore predittivo dell'ABI e della microalbuminuria in una popolazione diabetica adulta

M. Stabilini<sup>1</sup>, F. Lombardini<sup>1</sup>, M. Mantega<sup>1</sup>, M.G. Congiu<sup>1</sup>, A. Caddori<sup>1</sup>

<sup>1</sup>SC Medicina Interna, PO SS Trinita, ASSL Cagliari, Italy

**Scopo dello studio:** Calcolare il valore predittivo di ABI (indice pressorio caviglia-braccio) e microalbuminuria in una coorte di pazienti diabetici con e senza manifestazioni aterosclerotiche, per stratificare il rischio cardiovascolare.

**Materiali e Metodi:** Sono stati esaminati 134 pazienti (77 M e 57 F), suddivisi tra quelli con storia di aterosclerosi (51 pz, 24 M e 27 F) e non (83 pz, 53 M e 30 F) di pari età media. Ha fatto fede il referto delle indagini di diagnostica per immagini effettuate dai pazienti. A tutti sono stati valutati assetto glicometabolico, peso corporeo, altezza e calcolo del BMI, calcolo dell'ABI (determinato con sfigmomanometro e doppler con sonda lineare) su art. tibiale anteriore e radiale omolaterale, valutazione della creatinina e microalbuminuria. E' stata condotta l'analisi statistica per dati non appaiati.

**Risultati:** I pazienti con storia di aterosclerosi presentano valori di microalbuminuria (108 vs 7,98mg/24h, p<0,007), creatinina (1,11 vs 0,95mg%, p<0,002), glicemia (138,9 vs 128,6mg, p<0,01), HbA1c (6,46 vs 6,15%, p<0,03) e fruttosamine (330 vs 315 mg, p<0,01) più elevati. I valori di ABI sono risultati pari a 0,95 nei pz con storia di aterosclerosi, e pari a 1,17 in quelli privi. (p<0,01). Nessuna differenza tra i due gruppi per peso, circonferenza vita, uricemia, assetto lipidico.

**Conclusioni:** La valutazione dell'ABI e della microalbuminuria permette di identificare i pazienti diabetici a basso o elevato rischio cardiovascolare.

### T.I.A., multi-infarct encephalopathy, hypertensive heart disease. Permanent A.F., nodular goiter with hyperthyroidism. Iatrogenic hepatitis. Monoclonal peak in area. Renal cysts. Meningioma. Hypokalaemia

E. Stellitano<sup>1</sup>, V. Aronne<sup>1</sup>, B. Carej<sup>1</sup>, C. Caserta<sup>1</sup>, A. Fulgido<sup>1</sup>, P. Lipari<sup>1</sup>, G. Meduri<sup>1</sup>, A. Scordo<sup>1</sup>, I. Tarzia<sup>1</sup>, A. Stellitano<sup>2</sup>

<sup>1</sup>U.O.C. Medicina Interna, P.O. Melito Porto Salvo (RC), ASP Reggio Calabria;

<sup>2</sup>U.O.C. Geriatria, P.O. Ospedale S. Anna-San Fermo della Battaglia, ASST Lariana, Como, Italy

M.P.89 y.o.f. Hypertensive patient treated with ARB, Atrial Fibrillation. Paresthesias at right hemisomus. Brain CAT: multi-infarct encephalopathy, centimetric meningioma in the right cerebellar region. B.P:120/70. E.C.G.: A.F, h.r.: 80 b.m.The patient is dysarthric, with a slight strength deficit in the right side.OE:A.F.She starts ARB therapy and LMWH. Routine blood chemistry tests are normal; presence of monoclonal spike in area.TSH0,00 (n.v. 0.30-3.60), FT3 5,79 (n.v.2.20-4.20), FT4 2.79 (n.v.0.80-1.70). After this the patient is watchful, no dysarthria, no strength deficit. Chest XR:cardiac enlargement, enlarged and congested ilia,accentuation of bronchovascular markings. Abdomen ultrasound: mild fatty liver, kidney cysts. Thyroid Echography: massive lump of left lobe. Routine brain CAT: unchanged compared to the previous. Echocardiogram:enlarged left auricle,hypertrophy of the septum, mild mitral and tricuspid regurgitation, moderate pulmonary hypertension.Therapy:Tiamazolo 5mg (1cx3) and onset of abdominal pain with vomit. Fasting and infusion therapy. Laboratory tests: G.O.T 218 G.PT.156, GT 185, 305 alkaline phosphatase, total bilirubin 1.47, amylase and lipase within normal values. Negative hepatitis markers. Unchanged routine abdomen ultrasound. Tapazole is suspended. Clinical and laboratory improvement; moderate hypokalaemia persists. On 08/20/2016 she is discharged; diagnosed with T.I.A.; multi-infarct Encephalopathy, Hypertensive heart disease. A.F.Iatrogenic hepatitis. Nodular goiter with hyperthyroidism. Monoclonal spike area. Renal cysts. Meningioma.Hypokalaemia.

### About PCSK9 inhibitors

M. Straniti<sup>1</sup>, C. Bazzini<sup>1</sup>, V. Denaro<sup>1</sup>, L. Venturini<sup>1</sup>, G. Panigada<sup>1</sup>

<sup>1</sup>Medicina Interna, Pescia (PT), Italy

**Aim of tht study:** Optimal LDL Col depends on individual cardiovascular risk level. Much patients don't achieve recommended lipid goals because treatment may be associated with significant side effects or may be ineffective despite maximally tolerated statin doses. Data about PCSK9 inhibitors suggest an important role of Evolocumab and Alirocumab in management of these patients.

**Methods:** We review our data (dislipidemic patients offering for first evaluation to Our Lipidology Center in the last 2 years) to select high cardiovascular risk patients who don't achieve Col LDL range and evaluate their eligibility to PCSK9 inhibitors basing upon EMA prescribing criteria for Evolocumab and Alirocumab.

**Results:** An high percentage of our dislipidemic statin treated patients don't achieve LDL Col target and among these ones the most represented group are high cardiovascular risk patients. These represents 21% of total patient in treatment with statins and other antidiabetic therapy.They presents statin intolerance or inefficacy despite maximally tolerated statin doses.

**Conclusions:** Selected patiens must be carefully evaluated to undergo in new therapeutic strategies like PCSK9 inhibition. So we ll improve long-term cardiovascular outcomes in high-risk population achieving LDL goals in a more consistent percentage of patiens.

### Epigastric pain following intake of fried food

C. Tana<sup>1</sup>, S. Di Carlo<sup>2</sup>, T. Meschi<sup>1</sup>, M. Silingardi<sup>3</sup>

<sup>1</sup>Internal Medicine and Critical Subacute Care Unit, Medicine Geriatric-Rehabilitation Department, University-Hospital of Parma, Emilia Romagna;

<sup>2</sup>Geriatric Clinic, USL Pescara; Internal Medicine Unit, Maggiore Hospital of Bologna, Emilia Romagna, Italy

A 49-year-old man presented with acute epigastric pain radiating to the back 30 minutes after excessive intake of fried, high fat food. There was no history of alcohol consumption. Physical examination revealed fever (38°C), abdominal rigidity, tenderness and torpid peristalsis. Laboratory exams showed increase of ESR (46 mm/h), CRP (27.01 mg/dl), lipase (226 U/l), and leucocytosis with neutrophilia (20.1 and 18.4x10<sup>3</sup>/µL). HB, amylase and liver tests were normal. PCT was 1.45 ng/ml. Abdominal x-ray was negative. US did not reveal gallstones or free fluids, bile ducts were not dilated. Pancreas was not evaluable for meteorism. Blood cultures were collected. CECT showed the presence of gas within the pancreatic head and mild edema of the duodenum. There was no

free air suggestive of perforation. EGDS revealed the presence of a posterior duodenal ulcer (PDU). Conservative therapy (IV rehydration, bowel rest, PPIs, antibiotics) was associated with rapid improvement. Cultures were negative. In the "PPI era", PDU is an exceptional cause of abdominal pain, and was more frequently observed in the past where there was not an effective antacid treatment. EGDS demonstrates high accuracy to reveal small PDUs, and CT can reveal signs of penetration. Gas within the pancreas can be also associated with diabetes mellitus and sphincterotomy, and PDU should be considered as a cause of abdominal pain when adjacent organs are damaged without apparent causes of inflammation. The clinical course is benign if an appropriate therapy is promptly established, avoiding the need of surgery.

### La storia della signora Silvana: uno scompenso cardiaco a frazione di eiezione depressa *sui generis*. Dalla fase acuta al follow-up

N. Tarquinio<sup>1</sup>, A. Fioranelli<sup>1</sup>, L. Falsetti<sup>2</sup>, G. Viticchi<sup>3</sup>, W. Capeci<sup>4</sup>, F. Pellegrini<sup>5</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN);

<sup>2</sup>U.O. Medicina Generale e Subintensiva, Ospedali Riuniti di Ancona;

<sup>3</sup>Dipartimento Scienze Neurologiche, Ospedali Riuniti di Ancona;

<sup>4</sup>U.O. Neurochirurgia, Ospedali Riuniti di Ancona; <sup>5</sup>Libero professionista, Osimo (AN), Italy

ST, donna, aa 67, in passato buone condizioni; sindrome ansioso-depressiva in tp con triciclico, dislipidemia, familiarità per cardiopatia ischemica. Maggio '14: giunge al PS di Osimo per dispnea ingravescente da 1 settimana, cardiopalmo, ortopnea. BNP: 818. Versamento pleurico bilaterale.

**Diagnosi:** Scompenso cardiaco "de novo". Ricovero in Medicina Interna-Osimo. ECG: IVSx,FC:162 bpm, QRS:130 msec. Eco: FE 22%, Vsx dilatato; E/A>2, insuff. mitralica severa su base funzionale. Coronario: non lesioni stenosanti. Iniziata terapia+ivabradina 7,5 mgx2. Dimissione 11a giornata stabile. E/A < 1, regressione severità insuff mitr, scomparsa versamento pleurico all'eco-torace. Triciclico sospeso (possibile causa precipitante). Controllo 24 ° g:FE 34%. Fine agosto: switch ramipril valsartan per tosse stizzosa, poi scomparsa. BNP:196. Ottobre: FE>55%. Luglio '15: marcata astenia. Hb:9,7 (13 al ricovero); creat:1,27 (prima: 0,67) VFG:33 ml/min. SOF.

**Ipotesi diagnostica:** Anemia secondaria a progressivo deterioramento della funzione renale, esitata in IRC, a possibile eziologia iatrogena sospesi furosemide/spironolattone, ridotto Tareg a 80 mgx2. Feb '16: buone condizioni (no astenia), creat:1,1; Hb:12 (instaurata terapia marziale). FE:63%. Ridotto pantoprazolo a 20 mg/die alla luce delle ultime evidenze (associazione con IRC). Mantenuti Bisoprololo 2,5 mg e Ivabradina 7,5x2. Rivalutata questa settimana, buone condizioni, mantenuto Valsartan 40 ½ 1 cp. Caso esemplificativo di gestione dello scompenso cardiaco in ambiente internistico, c he dimostra la necessità di follow-up ambulatoriale seriato, con particolare attenzione alle comorbilità del paziente.

### Dottore, a volte ho il cuore in gola...

N. Tarquinio<sup>1</sup>, A. Fioranelli<sup>1</sup>, M. Malatesta<sup>2</sup>

<sup>1</sup>U.O.C. Medicina Interna, Ospedale "S.S. Benvenuto e Rocco", Osimo (AN);

<sup>2</sup>U.O. di Cardiologia dell'INRCA di Ancona, Italy

ME, donna, aa 45, in precedenza buona salute; a 22 aa diagnosi di linfoma di Hodgkin (irradiazione mediastinica+CHT) con guarigione. Nov '16: visita cardiologica richiesta presso l'ambulatorio della Medicina Interna di Osimo per dispnea da sforzo e cardiopalmo anche a riposo presenti da 1 mese, associate ad ortopnea, anche notturna. E.O: soffio olosistolico rude V/VI in focolaio aortico. ECG: segni di IVsx+sovraccarico Vsx. Si esegue quindi ecocardiogramma, che mostra valvola aortica tricuspidale marcatamente calcifica in sezione parasternale asse corto per grandi vasi, con apertura delle cuspidi molto ridotta, e vsx ipertrofico. In finestra apicale, dato anche l'habitus (magrezza), impossibilità all'esplorazione delle 5 camere per studio gradiente transvalvolare aortico (mentre sono esplorabili le 4 camere). Si utilizza pertanto la finestra sovrasternale con studio della velocità di picco transvalvolare in aorta toracica ascendente, che risulta diagnostica per stenosi aortica severa (120 mmHg).

**Ipotesi diagnostica:** Stenosi aortica sintomatica su base attinica

da irradiazione del mediastino avvenuta 20 anni prima, posta nonostante finestre acustiche "difficili" in ambiente internistico. Eseguito ETE, che confermava la diagnosi e la morfologia tricuspidale della valvola (escludendo pertanto una bicuspidia, causa maggiore di stenosi in età non senile). La paziente è stata poi ricoverata in elezione per studio coronarografico, propedeutico alla presentazione chirurgica, poi accettata per sostituzione valvolare meccanica avvenuta con successo presso la nostra Cardiocirurgia di riferimento (Ospedali Riuniti di Ancona).

### A rare form of multisystemic inflammatory disease

L. Tavecchia<sup>1</sup>, E. Nicolini<sup>2</sup>, S. Turato<sup>1</sup>, L. Guasti<sup>1</sup>, A.M. Grandi<sup>1</sup>

<sup>1</sup>Università degli Studi dell'Insubria, Dipartimento di Medicina Clinica e Sperimentale, Medicina Interna II, Varese; <sup>2</sup>Dipartimento di Medicina Clinica e Sperimentale, Medicina Interna II, Varese, Italy

**Background:** Adult onset Still's disease (AOSD) is a rare systemic inflammatory disorder, characterised by fever, evanescent rash, arthritis, and multi-organ involvement.

**Discussion:** A 41-year woman was admitted for fever, abdominal pain, nausea and vomiting. She had a 1-year history of evanescent rash at limbs and trunk. Laboratory analysis revealed normocytic anemia, elevated C-reactive protein, transaminases and ferritin. Autoimmune panel was negative, except for low titer ANA. CT scan showed inflammatory interstitial lung infiltrates, splenomegaly, dif-fused lymphadenopathy. Blood cultures and serology for viruses were collected hypothesizing a bacterial or viral infection and broad-spectrum antibiotic therapy was started without clinical benefit. All the cultures were subsequently negative. To exclude malignancies the patient underwent to PET that revealed hyper-metabolism in lungs, spleen and lymph nodes. After a week a pruritic rash appeared, and the skin biopsy revealed leukocytoclastic vasculitis. Since investigations ruled out other infective, autoimmune and neoplastic diseases, final diagnosis of AOSD was made. We started high dose prednisone with clinic, laboratory and radiological benefit. The patient was discharged after 40 days. A month later at the follow up visit, the patient was asymptomatic, so the steroid therapy was progressively reduced without complication.

**Conclusions:** The clinical presentation of AOSD is heterogeneous and the spectrum of differential diagnoses (infectious, neoplastic, and autoimmune disorders) is wide and its diagnosis is challenging.

### Un caso di sepsi da *Listeria monocytogenes* in colite ulcerosa all'esordio complicata da infezione da *Clostridium difficile* e *Cytomegalovirus*

D. Tettamanzi<sup>1</sup>, C. Bassino<sup>1</sup>, P.F. Gerosa<sup>1</sup>, M. Frigerio<sup>1</sup>, S. Casati<sup>1</sup>, E. Limido<sup>1</sup>

<sup>1</sup>Divisione Medicina Interna, ASST-Lariana, Presidio di Cantù (CO), Italy

Uomo di 69 aa, giunto per la prima volta in Pronto Soccorso per flemmone terzo dito piede sinistro e per proctorragia con anemia secondaria. Ricoverato in Medicina veniva sottoposto a colonoscopia con diagnosi di pancolite ulcerosa con modificazioni citopatiche da cytomegalovirus. Avviata terapia antibiotica ad ampio spettro con Piperacillina/tazobactam e Vancomicina, per l'infezione del dito e terapia steroidea più profilassi con metronidazolo per il problema intestinale con miglioramento clinico, normalizzazione degli indici di flogosi e stabilizzazione dell'emoglobina. Non veniva intrapreso trattamento per cytomegalovirus considerato il miglioramento clinico e il non certo coinvolgimento nella genesi della colite. Dopo 5 giorni dalla dimissione nuovo ricovero in Medicina per comparsa di febbre e scariche diarroiche non ematiche. Le indagini eseguite mostravano positività per antigene e tossina Clostridium Difficile (CD), e quindi trattato con Metronidazolo 500mg TID. Durante puntata febbrile eseguite emocolture positive per *Listeria Monocytogenes* e iniziato trattamento con Ampicillina/sulbactam. Inoltre si è ritenuto opportuno valorizzare il precedente rilievo colonoscopico di inclusioni da Cytomegalovirus e introdotto Valganciclovir. Gli esami infatti evidenziavano PCR per cytomegalovirus DNA positiva, IgG anti cytomegalovirus positive con IgM negative. Con questa terapia si è avuta negativizzazione per CD e graduale miglioramento clinico del paziente con normalizzazione degli indici di flogosi.

### Un caso difficile da digerire: colite ischemica complicata da sepsi da *Candida parapsilosis*

M.G. Tinti<sup>1</sup>, V. Massa<sup>1</sup>, D. Graziano<sup>1</sup>, S. Carughi<sup>2</sup>, V. Carnevale<sup>2</sup>, G. D'amico<sup>2</sup>, M.A. Annese<sup>2</sup>, G. Serviddio<sup>3</sup>, S. De Cosmo<sup>2</sup>, A. Greco<sup>4</sup>, G. Vendemiale<sup>3</sup>

<sup>1</sup>Scuola di Specializzazione Medicina Interna e Geriatria, Università di Foggia, U.O di Medicina Interna, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>2</sup>U.O di Medicina Interna, IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG); <sup>3</sup>Scuola di Specializzazione Medicina Interna e Geriatria, Università di Foggia; <sup>4</sup>U.O di Geriatria IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo (FG), Italy

**Premessa:** La Colite Ischemica(CI), patologia di difficile diagnosi per le sue presentazioni cliniche variabili, può essere complicata, a volte, dal suo stesso iter diagnostico.

**Materiali e Metodi:** M.C., donna di 68 anni, giunge alla nostra osservazione per la comparsa, da circa due mesi, di turbe digestive, vomito ricorrente con importante dis-elettrolismo e calo ponderale (circa 13kg). In anamnesi diabete mellito 2, cardiopatia ischemica, ipertensione arteriosa ed obesità. Esami strumentali quali EGDS, RX e TC Addome non rilevano alterazioni significative. La Colonscopia mostra invece una mucosa congesta e sanguinante del colon dx, che l'istologia confermerà essere CI. A 24 ore dall'esame endoscopico, M.C. presenta però un rialzo febbrile (39°C) con compromissione clinica generalizzata: emocolture ripetute indicano la positività per *Candida Parapsilosis*. Si inizia dunque il trattamento con Caspofungina 70mg/die ev come bolo, seguito da una dose di 50 mg/die ev fino a negativizzazione delle emocolture (7° giornata); terapia poi proseguita con Fluconazolo 400 mg/ev per 14 giorni, fino a risoluzione.

**Conclusioni:** Pur rimanendo il dubbio che l'infiammazione intestinale stessa sia stata la causa della sepsi; la relazione temporale con l'esame endoscopico è importante. In letteratura, sono descritti casi isolati di batteriemia da *Salmonella* ed *Enterobacter* dopo endoscopia, ma non è stato mai accertato un legame diretto con la procedura. Al momento quindi, permane il dubbio se sottoporre o meno, pazienti con più comorbidità a trattamento profilattico pre-procedurale.

### Riduzione dei valori di Hb tra 1° e 2° emocromo in pazienti internistici: uno studio osservazionale

L. Todaro<sup>1</sup>, A. Cuttica<sup>2</sup>, C. Foli<sup>2</sup>, S. Lorelli<sup>3</sup>, P. Anselmo<sup>1</sup>

<sup>1</sup>UOA Medicina Interna, ASL TO4, Chivasso (TO); <sup>2</sup>UOA Ematologia, ASL TO4, Chivasso; <sup>3</sup>Laboratorio Analisi, ASL TO4, Chivasso (TO), Italy

**Premesse e Scopo dello studio:** Nei pazienti ricoverati è nostra comune esperienza osservare variazioni significative tra i valori di Hb del primo prelievo ematico rispetto a quelli del secondo. In maniera "aneddotica" ciò viene attribuito alla "emodiluzione" dovuta alla terapia endovenosa effettuata in tale lasso di tempo. Poiché questa variazione può avere delle implicazioni sia cliniche che medico-legali, abbiamo voluto documentare e quantificare tale dato osservazionale.

**Materiali e Metodi:** Abbiamo incluso nello studio 30 pazienti random, 14M, 16F, età media 78, in cui erano state escluse patologie emorragiche, ematologiche, tumorali attive, insufficienza renale cronica.

**Risultati:** Nel 93,3% dei casi è stata osservata una riduzione di Hb da 0,2 a 2,1 g/dl tra i due prelievi effettuati tra 7 e 45 ore di distanza, con una media di 1 g; nel 50% di questi la riduzione era > ad 1 g.

**Conclusioni:** E' di frequente osservazione nei nostri pazienti internistici una riduzione fino a 2,1 g dei valori di Hb tra due prelievi ematici effettuati in un range di tempo di 21,7 ore in media di distanza dal ricovero. Pertanto questo dato necessita di essere correlato alle condizioni cliniche complessive del paziente e da solo non è indicativo di un sanguinamento in atto. Deve porre sospetto una variazione superiore. Sono da indagarne le motivazioni. Il laboratorio ha escluso cause inerenti le apparecchiature ed il personale infermieristico errori nell'esecuzione delle procedure di prelievo. Non sembra esserci relazione con la terapia infusiva effettuata.

### Cure palliative: modello d'integrazione ospedale-territorio

A. Toto<sup>1</sup>, E. De Mattia<sup>1</sup>, A. Bianchi<sup>1</sup>, M. Scalise<sup>1</sup>, R. Suozzi<sup>2</sup>, F. Ciaralli<sup>3</sup>, M. Di Carlo<sup>1</sup>

<sup>1</sup>UOSD Terapia del Dolore e Cure Palliative, Ospedale S. Pertini, Roma; <sup>2</sup>UOC Formazione, ASL Roma2, Roma; <sup>3</sup>UOC VII Distretto, ASL Roma2, Roma, Italy

**Premesse:** La legge 38/2010 garantisce l'accesso alle cure palliative e alla terapia del dolore. Il DCA 360/2016 dispone l'implementazione della rete locale di cure palliative, entro sei mesi. Scopo dello studio: La UOSD Terapia del dolore e cure palliative ha implementato un modello per poter ottemperare a quanto richiesto dalle disposizioni legislative.

**Materiali e Metodi:** Aumentato l'orario di apertura dell'ambulatorio fino a 24 ore settimanali, con terapie invasive ed agopuntura. Attivato un protocollo d'intesa con la UOC Oncologia Medica con l'implementazione di un ambulatorio per simultaneous care riservato ai pazienti oncologici in carico sia al DH che ambulatoriali. Le consulenze intraospedaliere vengono giornalmente effettuate anche con la eventuale valutazione per invio in assistenza hospice sia in regime domiciliare che residenziale. Per il territorio è stata definita un'agenda di prenotazione gestita dai servizi di assistenza domiciliare per consulenze specialistiche a favore di pazienti in carico al distretto. In collaborazione con la UOC Formazione sono stati programmati corsi aziendali di aggiornamento permanente per il personale sanitario secondo la normativa ECM.

**Risultati:** Con tale modello organizzativo, nel 2016, i nuovi pazienti ambulatoriali sono stati 435 rispetto ai 218 del 2015; il numero delle prestazioni è passato da 1374 a 1809; le consulenze intraospedaliere da 85 a 279.

**Conclusioni:** Tale organizzazione ha permesso di ottemperare a quanto disposto dalla normativa vigente mediante l'attivazione completa dell'integrazione ospedale/territorio.

### Un particolare ipopituitarismo...

C.A. Usai<sup>1</sup>, G.F. Careddu<sup>1</sup>, N.E. Manzoni<sup>1</sup>, G. Alagna<sup>1</sup>, A. Filippi<sup>2</sup>, F. Bandiera<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Sassari; <sup>2</sup>UOC Lungodegenza, Sassari, Italy

**Premesse:** Le patologie ipofisarie sono rare, devono essere tuttavia sempre tenute presenti ed adeguatamente indagate. Gli attuali progressi neuroradiologici e biochimici consentono di fare diagnosi nelle fasi precoci della malattia.

**Caso clinico:** Un uomo di 62 anni è giunto alla nostra osservazione per calo ponderale, inappetenza, deflessione dell'umore, episodio ipotimico. Agli esami ematochimici riscontro di lieve anemia macrocitica (Hb 11,4 g/dl), PCR aumentata (7,82 mg/dl). Rx-torace, Ecoaddome, TC cranio senza mdc non hanno evidenziato rilievi patologici così come la TC total body. Il profilo tiroideo ha mostrato una persistente riduzione del valore del ft4 (< 0,7 ng/dL in controlli successivi) con TSH nella norma. Le restanti tropine ipofisarie - cortisolemia 0,8 µg/dL, testosterone totale 0,55 ng/ml, PRL < 0,6 ng/mL, IGF-1 < 0,5 U/ml, LH ed FSH < 1,5 mU/ml - mostrano un quadro di panipopituitarismo. La RMN encefalo non ha evidenziato formazioni espansive intrasellari, ha mostrato un quadro di slargamento simmetrico della sella turcica.

**Discussione:** In questo caso la valutazione del profilo tiroideo ha permesso di diagnosticare un quadro di panipopituitarismo. L'inizio della terapia sostitutiva con idrocortisone (20 mg/die) ha portato a significativi miglioramenti clinici e laboratoristici. Sono in corso dosaggi Ac anti-ipofisi.

**Conclusioni:** Le cause endocrine possono essere responsabili di quadri clinici apparentemente aspecifici e di comune riscontro. Nel caso clinico descritto la causa del panipopituitarismo potrebbe essere una ipofisite a genesi autoimmune.

### Diagnosi e terapia del coma mixedematoso: due casi clinici

C.A. Usai<sup>1</sup>, G. Flore<sup>2</sup>, M. Burrai<sup>1</sup>, R. Mele<sup>1</sup>, A. Filippi<sup>3</sup>, F. Bandiera<sup>1</sup>

<sup>1</sup>UOC Medicina Interna, Sassari; <sup>2</sup>UOC Malattie Infettive, Sassari; <sup>3</sup>UOC Lungodegenza, Sassari, Italy

**Premessa:** Il coma mixedematoso è una rara sindrome che rappresenta l'espressione estrema di un grave ipotiroidismo di

lunga data, è una emergenza medica ad elevata mortalità. È composta da un ipotiroidismo scompensato, la compromissione del sistema nervoso centrale ed una compromissione cardiovascolare, si verifica più spesso negli anziani e durante i mesi invernali.

**Caso clinico:** Si tratta di 2 pazienti anziane "fragili", storia di decadimento cognitivo su base vascolare, ricoverate per stato soporoso, aumento delle CPK. All'esame obiettivo riscontro di edemi al volto ed agli arti inferiori, all'ECG quadro di bradicardia sinusale. La TC cranio senza mdc è risultata negativa per eventi vascolari in fase acuta così come l'elettroencefalogramma. Gli esami ematochimici evidenziano iponatremia (126 mEq/L), ipotiroidismo grave (entrambe con  $fT4 < 0,4$  ng/dL con  $TSH > 30$   $\mu$ U/mL). La terapia prevede la somministrazione di dosi sostenute di ormoni tiroidei EV (p. es., 0,2-0,5 mg di levotiroxina sodica il primo giorno), tuttavia non essendo presente in Italia la formulazione EV, si è deciso di posizionare SNG e di iniziare con la formulazione liquida di levotiroxina al dosaggio di 100  $\mu$ g/die, al trattamento graduale dell'iponatremia. Si è assistito ad un rapido miglioramento clinico con risoluzione dello stato soporoso dopo circa 36-48 ore.

**Conclusioni:** Il coma mixedematoso rappresenta una patologia rara ma estremamente pericolosa per la vita del paziente e va prontamente indagata e trattata; le nuove formulazioni disponibili rappresentano un ausilio importante per la terapia.

### Esteso fibrotorace paucisintomatico in esiti post-tubercolari

D. Vinattieri<sup>1</sup>, G. Peruzzi<sup>1</sup>, V. Belardini<sup>1</sup>, R. Mastriforti<sup>1</sup>, R. Nassi<sup>1</sup>, S. Mercatelli<sup>1</sup>

<sup>1</sup>U.O. Medicina Interna Valtiberina, Sansepolcro (AR), Italy

**Case report:** Paziente di 82 anni, autosufficiente, in grado di assistere la figlia disabile, con anamnesi muta se non per pleurite giovanile verosimilmente tubercolare, si ricovera per dispnea e astenia insorte nelle ultime settimane, non associate a febbre o tosse. Emerge insufficienza respiratoria ipossico- ipercapnica ingravescente trattata con NIV. Colpisce il dato radiologico, poi confermata dalla TC, di grave riduzione volumetrica dell'emitorace sinistro per fibrotorace con estese calcificazioni pleuriche. Presente completa atelettasia cicatriziale del polmone sinistro con dilatazioni bronchiectasiche. Emidiaframma omolaterale sollevato a livello della IV costa. A destra polmone fibrotico diffuso con bronchioloectasie. Il caso si caratterizza per la discrepanza tra il dato clinico e quello radiologico: la paziente era stata in buone condizioni fino a pochi giorni prima del ricovero, pur presentando un quadro radiologico apparentemente incompatibile con normale svolgimento delle attività quotidiane.

### Malnutrition in liver cirrhosis

C. Virgillito<sup>1</sup>, I. Morana<sup>1</sup>, R.A. D'amico<sup>1</sup>, C. Di Mauro<sup>1</sup>, M.L. Moncada<sup>1</sup>, S. Neri<sup>1</sup>

<sup>1</sup>Medicina Interna in Area Critica, PO Garibaldi Centro, Catania, Italy

It is frequent in cirrhosis, causing muscle loss, hypoalbuminemia, infections, bleeding esophageal varices, poor prognosis. The causes are anorexia, nausea, ascites, reduced absorption of nutrients/vitamins, bacterial translocation, hypermetabolism/hypercatabolism, resistance insulin, glycogensynthesis, early activation/ gluconeogenesis, lipolysis, protein deficiency (paracentesis, mobilization of amino acids from skeletal muscle), drugs (neomycin, cholestyramine). Forms of malnutrition are: sarcopenia, loss of muscle mass; cachexia, fat loss and muscle mass; precachexia, unintentional weight loss <5% of normal body weight in the last 6 months in chronic disease; sarcopenic obesity, loss of muscle mass and increase in fat tissue. BIA (bioimpedance analysis and phase angle evaluation) and psoas muscle volume are used in diagnosis. It is recommended energy intake 35-40 kcal/kgBW, 1.2-1.5 g protein/kg BW, no diet restriction (except alcohol), 4-5 meals, nocturnal fasting. Often useful vitamins (D3, E, A, thiamine), folate, calcium, zinc, magnesium, branched-chain amino acids, supplements in polymer formulas (high calorie/protein) orally, artificial enteral nutrition for nasogastric tube (if esophageal varices endoscopic assistance). In sarcopenic obesity

and cirrhosis not complicated to establish caloric restriction, no reducing nutrients intake. If ascites reduce sodium (80-90 mmol/day). In episodic hepatic encephalopathy reduce proteins (0.5 g/kg/day) only 48 h. In recurrent/persistent hepatic encephalopathy prefer protein from dairy sources.

### Un caso di trombosi venosa profonda giovanile

E. Zabeo<sup>1</sup>, L. Filippi<sup>1</sup>, G. Ceradini<sup>1</sup>, M. Galiotto<sup>1</sup>, P.L. Pujatti<sup>1</sup>

<sup>1</sup>U.O. Medicina, Ospedale Cazzavillan, Arzignano (VI), Italy

M.L., 20 anni, studente universitario, anamnesi familiare e personale muta, si presenta in pronto soccorso per dolore, tumefazione e iperemia all'arto superiore sinistro dopo aver dormito supino con l'arto sotto la testa. Obiettivamente arto superiore sinistro edematoso, iperemico, dolente e muscolo pettorale omolaterale ipotrofico che il paziente rivela essere tale dalla nascita. Un ecocolorDoppler (ECD) venoso evidenzia trombosi venosa profonda di vena succlavia sinistra. Il paziente viene trattato con EBPM a dosaggio terapeutico e durante la degenza vengono indagate cause possibili di trombofilia (congenita o acquisita: screening trombofilico, TC torace-addome) che risultano nella norma. Nel sospetto di uno stretto toracico viene esclusa la presenza di patologie osteoarticolari ma risulta positiva la manovra di Allen a livello del circolo arterioso individuando uno stretto toracico funzionale probabilmente secondario all'ipotrofia muscolare e alla posizione di riposo notturno. Il paziente viene quindi dimesso con terapia anticoagulante con apixaban 5 mg x2 al giorno e indicazione a fisiokinesiterapia. Al controllo a 3 mesi dall'evento, completato il ciclo di FKT, obiettivamente si riscontra arto superiore sinistro nella norma. Un'ECD venoso evidenzia completa ricanalizzazione del trombo e la manovra di Allen risulta negativa a livello artero-venoso. Viene quindi sospesa terapia anticoagulante con indicazione a proseguire a domicilio gli esercizi fisioterapici e a mantenere le accortezze posturali concordate soprattutto per il riposo notturno.

### Skin lesions in small lymphocytic leukemia

S. Ziyada<sup>1</sup>, F. Soderino<sup>2</sup>, N. Cosentino<sup>2</sup>, F. Marzano<sup>1</sup>, A. Spina<sup>1</sup>, M.C. Zaccaria<sup>1</sup>, F.L. Lorenzi<sup>1</sup>, A. Fierro<sup>1</sup>

<sup>1</sup>Internal Medicine Department, Sandro Pertini Hospital, Rome; <sup>2</sup>Family Physician, ASL Roma 2, Rome, Italy

**Introduction:** Small lymphocytic lymphoma (SLL) and Chronic Lymphocytic Leukemia (CLL) are a low grade B cell lymphoma. They are essentially the same disease with slightly different manifestations. The only difference is where the cancer primarily occurs. When the cancer cells are located mostly in lymph nodes, the disease is called SLL. When most of the cancer cells are located in the peripheral blood and in the bone marrow we referred to CLL, although the lymph nodes and spleen are often involved. These patients don't have B- symptoms at diagnosis. SLL constitutes approximately 4% of the malignant lymphomas with an incidence of 1.31/100.000 people.

**Case report:** A 50 year-old male patient was admitted to emergency department with shortness of breath, swollen abdomen. Cutaneous lesions for about three years. Laboratory examinations showed normal white blood cell count and hemoglobin. A total body CT scan was performed and revealed a diffuse enlarged lymph nodes, left pleural effusion, Massive splenomegaly (25 cm). In our department the patient underwent a pleural drainage and skin biopsy that showed a morphological pattern suggestive of Small Lymphocytic Lymphoma.

**Discussion:** In CLL/SLL, cutaneous lesions occur in up to 25% of patients, infection or hemorrhage are the most common, but they can also be an early manifestation of skin malignancy, as, when compared with normal population, in CLL/SLL skin cancer risk is increased. Most frequent are melanoma and non-melanoma skin cancer. In our patient the Cutaneous lesions were the First symptom of the disease.

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