come in schizophrenia. A helpful approach to promote adherence in schizophrenia is the use of long-acting injectable (LAI) antipsychotics.
Object To evaluate:
– the global functioning and the hospitalization rate occurred in the year before and in the year following the switch from a low-efficacy oral antipsychotic to either a LAI once-monthly therapy (palmitate paliperidone or olanzapine pamoate) or the corresponding oral compound (paliperidone\risperidone or olanzapine) in schizophrenic patients;
– the treatment attitude and the insight in patients treated with second-generation antipsychotic (SGA)-LAIs and with the corresponding oral compounds.
Method Sixty adult schizophrenic outpatients: thirty were switched to LAIs and thirty to the corresponding oral antipsychotic. We used the following scales: Drug Attitude Inventory (DAI), Schedule for the Assessment of Insight (SAI), Life Skill Profile (LSP).
Results Number of hospitalizations per year decreased in both groups (LAIs: from 1.3 ± 0.5 to 0.3 ± 0.5; oral: from 1.3 ± 0.5 to 0.6 ± 0.5). We found a direct association between the "hospitalization event" and the oral drug compared to the corresponding LAI formulation ($P = 0.049$; OR: 3.05; 95% IC: 1.01–9.26). Patient receiving LAIs achieved a more significant improvement at the LSP score compared to the oral group ($P < 0.001$ vs. $P = 0.0034$) and higher DAI (5.9 ± 4.3 vs. -1.1 ± 4.3) and SAI (8.7 ± 2.9 vs. 5.6 ± 2.1).
Conclusions Our data suggest that SGA-LAIs, improving the adherence to the treatment, may sensitively reduce costs in mental health services.
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EW0765

Analysis of big data shows haloperidol with a decreased level of serum potassium

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Introduction Haloperidol has been used for the treatment of schizophrenic disorders and other disorders with psychotic symptoms in psychiatric cares. It has been reported that haloperidol can cause QT-prolongation as well as Torsades de Pointes, especially in hypokalemic condition. Here, we tested the usefulness of the large clinical electronic medical record system data from a hospital located in South Korea and further investigated any change in potassium levels before and after an exposure to haloperidol.
Methods The dataset used in this study is derived from open access database with information such as admission, discharge, diagnosis, prescribed drugs and selected laboratory data for the period 1 June 1994 to 31 July 2013. This database contains information of total 461,170 patients with 4,920,758 prescriptions and 3,811,812 data about serum potassium levels.
Results Extracting a dataset from this database to compare the levels of serum potassium before and after haloperidol usage, we selected 3661 cases of data, 2476 of them (67.6%) were males and 1185 (32.4%) were females. More than 98.5% (3606) was Asians, and mean age of the patients was 68.63 ± 17.3 years old. The levels of serum potassium before and after haloperidol usage were 4.93 ± 2.53 and 3.86 ± 0.6 mEq/L, respectively, and *t*-tests revealed that those levels were significantly different (< 0.001).
Conclusions Findings showed that an exposure to haloperidol could lead to a decrease in levels of serum potassium. We suggested that EMR data can be a valuable tool to investigate the effects of treatment on several clinical data.
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EW0766

Effectiveness and tolerance of treatment with Aripiprazole LAI in a group of schizophrenics patients

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Introduction In the pharmacological treatment of schizophrenia, more and more authors suggesting the use of injectable antipsychotics long-term these patients, since it increases adherence to treatment, one of the risk factors for relapse that argues most often to explain the failure of the treatment of these patients.
In the present study, it is to observe the evolution of a group of such patients to assess efficacy and tolerability of treatment with Aripiprazole LAI.
Material and method Data from 17 patients treated at a mental health center in Navarra (Spain), diagnosed with schizophrenic disorder, followed over a year after beginning treatment with Aripiprazol LAI are collected.
The data collected are:
– date of treatment change (month and year);
– antipsychotic previous;
– reason for change;
– aripiprazole LAI dose;
– number of income before and after the start of Aripiprazole LAI (mirror);
– effects adverse pre and post start of treatment with Aripiprazole LAI: metabolic, endocrine, extrapyramidal;
– treatment antipsychotic concomitant pre and post start Aripiprazole LAI.
Results The results show a decrease in the number of income after the start with Aripiprazole LAI, with very good retention of treatment, and a low number of side effects, which were mild.
Conclusions Treatment with Aripiprazole LAI is a good therapeutic alternative to the use of antipsychotic drugs by mouth, with good adherence, tolerability and efficacy.
Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0767

The new target therapy to prevent weight gain associated to atypical antipsychotics: PKCβ

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Antipsychotic drugs are currently used in clinical practice for a variety of mental disorders. Clozapine is the most effective medication for treatment-resistant schizophrenia, in controlling aggression

and suicidal behavior in psychosis. Although clozapine is associated with a low likelihood of extrapyramidal symptoms and other neurological side effects, weight gain and metabolic side effects are well known in clinical practice exposing the patient to a greater risk of cardiovascular disorders, premature death, as well as psychosocial issues leading to non-adherence. The mechanisms underlying this pharmacologically activated disorders are still controversial. Based on our in vitro results, we have characterized in vivo the effects of the selective PKCβ inhibitor, Ruboxistaurin (LY-333531) on a preclinical model of long-term clozapine-induced weight gain. Cell biology, biochemistry and psychomotor tests have been performed on wild type and PKCβ (-/-) mutant mice to investigate the contribution of endogenous PKCβ and its pharmacological inhibitor on the neuroleptic effect of clozapine. Lastly, we also shed light on a novel aspect of the mechanism underlying of clozapine-induced weight gain, demonstrating that the clozapine-dependent PKCβ activation promote the inhibition of the lipid droplet-selective autophagy process, opening the way to new therapeutic intervention approach.

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EW0768

Changes in the cytokine profile in first episode, drug-naïve patients with psychosis after short-term antipsychotic treatment

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Introduction An increasing body of evidence suggests that antipsychotic medication can cause immunological changes that could be attributed to the amelioration of psychotic symptoms or the metabolic side effects of the drugs. So far, the results of the studies remain controversial.

Objective Our aim was to compare the levels of interleukin (IL) IL-2, IL-6 and transforming growth factor-β2 (TGF-β2) in drug-naïve, first-episode patients with psychosis before and after six weeks of antipsychotic medication.

Methods Thirty-nine first episode patients with psychosis were enrolled in the study. Serum levels of IL-2, IL-6 and TGF-β2 were measured by enzyme linked immunosorbent assay (ELISA) before and six weeks after the initiation of antipsychotic medication. In addition, clinical psychopathology was assessed using Positive and Negative Syndrome Scale (PANSS) before and after treatment.

Results Serum levels of IL-2 were significantly higher in the study group six weeks after the initiation of antipsychotic treatment ($P < 0.001$) while TGF-β2 levels were decreased ($P < 0.001$) and IL-6 levels were slightly reduced ($P < 0.004$).

Conclusion The changes in cytokine levels may be attributed to the action of antipsychotic medication and the remission of psychopathology. The reduction in TGF-β2 levels is observed in all patients and with all antipsychotic medications used. TGF-β2 may be a marker of clinical efficacy.

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EW0769

Amelioration of impaired hippocampal cognitive performance in Alzheimer's disease via long-term intervention with ghrelin

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Introduction Alzheimers disease (AD) is a neurodegenerative disorder characterized by loss of memory and cognitive deficits. Ghrelin is a peptide hormone which has been linked to neuroprotection, memory and learning processes.

Objectives This study investigated the effects of ghrelin-induced memory retention on amelioration of cognitive deficits via restoration of long-term potentiation (LTP) and induction of synaptic plasticity in hippocampal CA3, using a rat model of AD induced by amyloid-β (1-42) injection.

Methods Five groups of male rats (230–270 g) including ghrelin-treated (200 ng/rat, [ICV], daily for two weeks), Aβ1-42 injected (5 μL/rat) and Aβ1-42 plus ghrelin-treated animals were designed. Ghrelin was administered after an ICV injection of Aβ1-42. To assess cognitive performance and the motor dysfunction, passive avoidance tests and open-field were performed, respectively. Step-through latency (STL) was evaluated as learning and memory index. Intrahippocampal field potential recordings were done.

Results Results showed that following Aβ1-42 injection, STL and induction of LTP were significantly decreased whereas ICV injection of ghrelin significantly enhanced memory retention by improvement of STL and restitution of LTP in the CA3 with increased EPSP slope and PS amplitude, suggesting the involvement of ghrelin in postsynaptic mechanisms of hippocampal LTP.

Conclusions It was revealed that neuroprotective effects of chronic ghrelin not only can enhance but also can restore LTP in the CA3 area in Aβ-induced AD. Results suggest that ghrelin may be considered as a promising therapeutic agent to alleviate cognitive deficits of AD.

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EW0770

Relationship between taste thresholds and antidepressant response: Preliminary findings

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Introduction In healthy volunteers, light acting through serotonin pathways, decreases the threshold for sweet, but not salt taste; similar to SSRI paroxetine. In depressive disorders, there is deficiency of serotonin throughput, which is remedied by SSRI medications, and results in improvement in symptoms of depression. Thus, we report on taste thresholds before and after SSRI treatment.

Objectives To study the variation in thresholds for sweet with SSRI treatment in depressed patients in short- and long-term.