

ANESTHESIOLOGY 2011

TRANSFORMING PATIENT SAFETY THROUGH SCIENCE AND INNOVATION

OCTOBER 15-19, 2011

CHICAGO, ILLINOIS

SCIENTIFIC ABSTRACT GUIDE



PO 16-3 REGIONAL ANESTHESIA AND ACUTE PAIN: CLINICAL: ACUTE PAIN MEDICINE

RA

8-11 a.m.

Hall B2 Area G

A587 Combination Gabapentin, Dexmedetomidine, and Patient Controlled Analgesia Versus Epidural Infusion for Pain Management in Adult Live Donor Hepatectomy

David Rosenfeld, M.D., Terrence Trentman, M.D., Michael Ivancic, M.D., Karl Poterack, M.D., David Mulligan, M.D., Mayo Clinic Arizona, Phoenix, AZ. Optimal pain control in live donor hepatectomy achieved With epidural catheter or combined gabapentin, dexmedetomidine, With PCA. Combined regimen is preferred strategy as it avoids risk for epidural hematoma in patients With predictable post-operative coagulopathy.

A588 Neuroaxial Anesthesia and Heparinization-The Sixty Minute Rule

Menachem Weiner, M.D., Alexander Mittnacht, M.D., Ingrid Hollinger, M.D., Meg Rosenblatt, M.D., Mount Sinai School of Medicine, New York, NY. At Mount Sinai we have a long history of performing a neuraxial block for pediatric cardiac surgery as part of a fast-tracking technique to allow for possible extubation in the operating room. No specific waiting period prior to heparinization is used. We have never had a case of symptomatic peridural hematoma.

A589 New Anticoagulant Drugs and the Implications on Neuraxial Injections

Honorio Benzon, M.D., Silas Hoxie, M.D., Northwestern University Feinberg School of Medicine, Chicago, IL. The interval between the intake of an anticoagulant and neuraxial injection depends on the 1/2; life of the drug, 2-3 half-lives have been recommended. For antiplatelets, the percent platelet inhibitions determines the interval.

A590 Anatomic Study to Assist in Ankle Blocks

Honorio Benzon, M.D., Ryan Pollina, M.D., Mark Kendall, M.D., Edward (Ted) Yaghmour, M.D., Northwestern University Feinberg School of Medicine, Chicago, IL. Our cadaver studies showed: a) below patella: saphenous nerve posterior to vein; b) medial malleolus: saphenous nerve posterior to saphenous vein; c) lateral malleolus (proximal): sural nerve posterior to vein; d) level of lateral malleolus: nerve posterior to vein e) level of malleoli: deep peroneal nerve lateral to artery.

A591 In-Vitro Heating Effect on an Epidural Catheter at 3.0 TESLA MRI

Lindsey Patterson, M.D., F.R.C.A., Tamara Henderson, M.D., Patrick Stroman, Ph.D., Queens University, Kingston, ON, Canada. The current *in vitro* study suggests that temperature increases in the Arrow FlexTip Plus[®] catheter are within the range considered clinically safe when imaged continuously for 40 minutes using the 3.0 TESLA MRI system independent of catheter configuration.

A592 Consent in Regional Anesthesia in a UK Centre: Much (or little) Information?

Suresh Anandkrishnan, M.B., B.S., Khalid Syeed, B.S., Kingston Hospital NHS Trust, Kingston, United Kingdom. A retrospective survey of a sample UK population to inquire whether they would have wanted to be informed of more serious complications of regional anesthesia, and that knowledge would influence their decision making prior to consenting to the technique.

A593 Efficacy of Topical Anesthesia on Post-thoracotomy Ipsilateral Shoulder Pain

Ulderico Freo, M.D., Maurizio Furnari, M.D., Evangelista, M.D., Carlo Ori, M.D., Francesco Ambrosio, Università di Padova, Padova, Italy. Post-thoracotomy ipsilateral shoulder pain is common and difficult to treat. Topical anesthesia of the referred pain area was highly effective in preventing ipsilateral shoulder pain.

A594 The Effect of Perioperative Intravenous Lidocaine and Ketamine on Recovery after Hysterectomy

Martin Grady, M.D., Edward Mascha, Ph.D., Daniel M.D., Andrea Kurz, M.D., Cleveland Clinic, Cleveland, OH. Adjuvant perioperative lidocaine and/or ketamine infusion for hysterectomy did not improve acute rehabilitation as measured by a 6-minute walk distance on postoperative day 2.

A595 Machine Learning Classifiers Predict Patient Need for Pain Service Consult Preoperatively

David Edwards, M.D., Ph.D., Stephen Lucas, M.D., Aytug, Ph.D., Andre Boezaart, M.D., Ph.D., Patrick Tighe, University of Florida, Gainesville, FL. A sampling of machine learning classification algorithms (CAs) were used to predict patient need for pain service consult based on information on OR schedule, which patients were seen preoperatively for acute pain consult. Results showed that CAs can predict patients that should receive a pain service consult. Automated selection can help optimize staffing, reduce OR starts, and decrease cost.

A596 Comparison of Immediate-release Bupivacaine Versus EXPAREL[™] (Bupivacaine Extended-Release Liposomal Injection) on Opioid Requirements and Related Adverse Events from Phase 2 and Studies Utilizing Multimodal Analgesia Across Multiple Surgical

Raymond Sinatra, M.D., Sonia Ramamoorthy, M.D., Dasta, M.Sc., Yale University, New Haven, CT. Patients receiving EXPAREL(TM), a multivesicular liposomal form of bupivacaine at doses of 300 mg or lower showed a statistically significant decrease in amount of opioids required and mean number of opioid related adverse events per patient.

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A593

October 16, 2011

8:00:00 AM - 11:00:00 AM

Room Hall B2 Area G

Efficacy of Topical Anesthesia on Post-thoracotomy Ipsilateral Shoulder Pain

Ulderico **Freo**, M.D., Maurizio Fumari, M.D., Maurizio Evangelista, M.D., Carlo Ori, M.D., Francesco Ambrosio, Università di Padova, Padova, Italy

Background. Ipsilateral shoulder pain (ISP) is a common problem and a risk of respiratory complications after thoracic surgery. ISP is an often severe and poorly controlled by epidural and opioid analgesia. It is thought to be a referred phrenic pain. The aim of the study was to investigate the efficacy of anesthetizing the skin overlaying the referred area in a randomized, double-blind fashion.

Materials and Methods. Fortyfive consenting adult patients undergoing elective thoracic surgery participated in the study. All patients received standard general anesthesia and midthoracic epidural and, upon randomization, one of the following topical treatments: 1) A placebo cream on the referred phrenic pain areas (placebo cream group); 2) Two-three eutectic mixture of lidocaine 2.5% and prilocaine 2.5% (EMLA, Astra-Zeneca, Basiglio, Milan, Italy) on homologous contralateral thoracic areas (placebo site group); or 3) Two-three g of anesthetic cream on ipsilateral referred phrenic pain areas (active group). Rectal indomethacin and IV pethidine were rescue analgesics. Pain intensity was assessed using a 0-10 Numeric Rating Scale (NRS) and consumption of analgesics were recorded at postoperative 0, 1, 2, 3 and 24 hours. Categorical data were analyzed by a χ^2 test and continuous variables by a Bonferroni corrected t test.

Results. There was no difference in age, weight and type of surgery across the groups. ISP (NRS > 3) was reported by a larger number of patients in the placebo cream group and in the placebo site group than in the active group (7 patients vs. 2 patients, $P = 0.03$ and $P = 0.01$). During the first postoperative day and compared to the placebo cream group and placebo site group, the active group had lower pain intensity (table 1) and lower consumption of indomethacin ($122.5 \text{ mg} \pm 35.3$ and $114.3 \text{ mg} \pm 50.1$ vs. $20.2 \text{ mg} \pm 31.3$, $P = 0.01$ and $P = 0.03$) and of pethidine ($25.2 \text{ mg} \pm 23.5$ vs. $8.3 \text{ mg} \pm 2.5$, $P = 0.0001$ and $P = 0.001$). No side effect was observed from the anesthetic cream except for mild skin irritation in 4 patients in the active group.

Discussion. Topical anesthesia was highly effective in preventing post-thoracotomy ISP. The findings suggest that post-thoracotomy patients' ISP is transmitted via the phrenic nerve.

Figure 1

Time (hours)	Groups			P
	Placebo cream	Placebo site	Active	
0	6.7 ± 3.1	4.5 ± 3.4	1.8 ± 1.8	0.001, 0.01
1	4.2 ± 2.4	4.0 ± 2.9	1.2 ± 1.3	0.001, 0.02
2	4.1 ± 2.1	4.0 ± 2.5	1.1 ± 0.9	0.001, 0.01
3	4.0 ± 2.5	3.9 ± 2.7	0.7 ± 1.5	0.001, 0.001
24	3.5 ± 2.1	3.3 ± 2.5	0.5 ± 1.5	0.04, 0.04

Data are mean NRS values ± SD.
Data of columns 1 and 2 compared to column 3. Bonferroni corrected t test.
NRS = numerical rating scale.