

**Results and discussion:** A total of 3365 patients (IVPCA: 1248, PCEA: 2117) were investigated. Delirium was noted in 130 patients (3.86%), 4.81% with IVPCA and 3.31% with PCEA. Risk factors found to be significantly associated with delirium were IVPCA ( $P=0.038$ , OR 1.53 95%CI 1.02-2.31), age (per 10-year increase,  $P<0.001$ , OR 2.37 95%CI 1.92-2.94), dementia ( $P<0.001$ , OR 8.12 95%CI 3.52-20.9), operation time (per 1-hour increase,  $P<0.01$ , OR 1.15 95%CI 1.05-1.26), and liver dysfunction ( $P<0.01$ , OR 2.2 95%CI 1.34-3.61).

**Conclusion(s):** Delirium was more frequent in patients who received IVPCA as compared to PCEA. We concluded that IVPCA should be considered as a risk factor for postoperative delirium.

## 14AP8-8

### Sleep Onset REM (SOREMs) after tramadol therapy for acute postoperative pain

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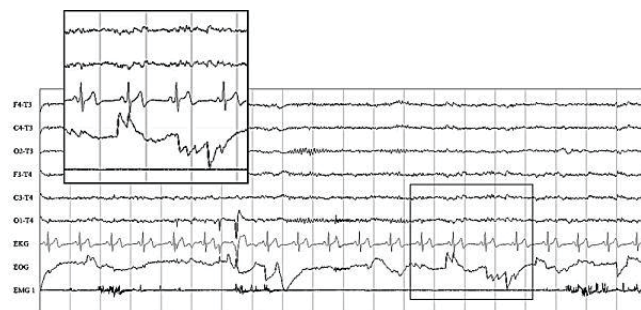
**Background:** Tramadol is widely used to treat moderate pain for its weaker respiratory depression. R enantiomer acts as a feeble  $\mu$  agonist and increases serotonin release, while S inhibits norepinephrine reuptake. These characteristics may be responsible for some side effects: troubled sleep and vivid and unpleasant dreams. After obtaining consent, 7 patients ASA I to III were treated with tramadol for the PO acute pain and then underwent a sleep latency test (SLT - 30 min long) to evaluate sleep disturbances.

**Case report:** A 42 years old caucasian male 80Kg BMI 26 ASA I candidate for a laparoscopic cholecystectomy with no other comorbidities underwent a GA: fentanyl 120 $\mu$ g, propofol 160mg, rocuronium 60mg; maintenance: remifentanyl, rocuronium, desflurane. At end of the surgical procedure he received tramadol 100mg and metoclopramide 10mg in bolo; then a 24h elastomer containing tramadol 200mg, metoclopramide 20mg, ranitidine 100mg and ketorolac 30mg. In the afternoon the patient experimented particularly vivid and unpleasant dreams. SLT showed short periods of SOREM. These dreams continued until the suspension of the infusion on the second postoperative day. In the anamnestic interview, the patient referred that he usually did not dream at all. Contacted 60 days after these episodes, he did not report more side-effects, returning to his previous sleeping habits.

**Discussion:** Tramadol may reduce the quality of sleep<sup>1</sup>. While the sleeping problems seem to be linked to its effect on the cited receptors (SNRIs are likely to decrease the deepest stages of sleep), no evidence of the mechanism of vivid dreams was ever reported.

#### References:

- Walder B, et al. The effects of two single doses of tramadol on sleep: a randomized, cross-over trial in healthy volunteers. *Eur J Anaesthesiol.* 2001 Jan;18(1):36-42



[SOREMs Polysomnographic Recording]

**Learning points:** Tramadol may be responsible for SOREMs in sensible patients. However, these episodes do not seem correlate to delirium or disorientation: the patient remained lucid for all his hospital staying and did not manifest any alteration of his cognitive performance, as indicated by the same MMSE score before and after surgery (both 29/30 - not corrected for age).

## 14AP8-10

### The effects of preoperative oral pregabalin and perioperative intravenous lidocaine infusion on postoperative morphine requirement in patients undergoing laparotomy

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**Background and Goal of Study:** The aim of our study was to evaluate and compare the effects of preoperative oral pregabalin and perioperative IV lidocaine infusion on postoperative morphine requirement, adverse effects, patients' satisfaction, mobilization, first defecation and discharge time in patients undergoing laparotomy.

**Materials and methods:** Following the Ethics Committee approval, 80 patients aged between 18-65 years, undergoing elective laparotomy were randomly divided into 4 groups (n=20). In Group C, patients had placebo capsules 12 hours prior to operation and at the morning of operation and normal saline was infused 6 cc/h during operation. In Group L, patients had also placebo capsules and lidocaine was infused 2mg/kg/hr perioperatively after 1mg/kg iv bolus dose. In Group P, patients had 150 mg oral pregabalin 12 h prior to operation and at the morning of operation and normal saline was infused during operation. In Group PL, patients had 150 mg oral pregabalin 12 h before operation and at the morning of operation and lidocaine was infused 2mg/kg/hr perioperatively after 1mg/kg iv bolus dose. Heart rate, mean arterial blood pressure, peripheral oxygen saturation and end-tidal carbon dioxide pressure were recorded with 30 min intervals during operation. Postoperatively morphine was administered until Visual Analogue Scale (VAS) scores < 30, and IV morphine patient controlled analgesia (PCA) was started. During 48 hours postoperatively, VAS scores, IV PCA consumption, additional analgesic requirement, side effects, mobilization time, first defecation time, discharge time and patients' satisfaction were recorded.

**Results and discussion:** VAS scores of Group L, Group P and Group PL were lower than control group ( $p<0.05$ ). Morphine consumption of Group P and Group PL were lower than control group ( $p<0.05$ ). Incidence of nausea in control group was higher than Group L and Group PL. Time of first defecation and mobilization were shorter in Group L and Group PL than control group ( $p<0.05$ ).

**Conclusion(s):** We concluded that preoperative oral pregabalin and perioperative IV lidocaine infusion decrease postoperative VAS scores, also preoperative oral pregabalin decreases morphine requirement and perioperative IV lidocaine infusion fastens gastrointestinal motility, mobilization and decreases the incidence of nausea in patients undergoing laparotomy.

## 14AP8-11

### Patient-controlled analgesia with intravenous morphine: predictors of higher consumption

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**Background and Goal of Study:** The knowledge of variables that are associated with higher consumption of intravenous (IV) morphine by patient-controlled analgesia (PCA) allows optimization of analgesia and improves outcomes. The aim of our study was to find predictors of higher morphine needs.

**Materials and methods:** Retrospective study, approved by the hospital's ethics committee.

Consultation of electronic medical records of patients (last 2 years) that had analgesia with IV morphine PCA. Collecting data: gender, age, weight, ASA status, type of pain, type of surgery. PCA related data and total morphine consumption (mg/Kg).

Statistical analysis with t-test, ANOVA, Pearson correlation coefficient and linear regression modelling. Statistical significance  $P<0.05$ . Data are presented in mean  $\pm$  standard deviation.

**Results and discussion:** 930 patients included: male 51%; mean age 50,7 $\pm$ 19,6 years; mean weight 69 $\pm$ 14,7Kg; ASA 2 46%; days with PCA 2,7 $\pm$ 2,5; background morphine infusion and bolus 4,2%; total morphine consumption 0,9 $\pm$ 2,1.

Regarding mean total morphine consumption: there was no statistically significant difference between gender,  $p=0,199$ ; ASA 3 patients had higher (1,5 $\pm$ 3,3) and ASA 4 had less consumption (0,6 $\pm$ 1,0),  $p<0,001$ ; there was statistically significant difference between type of pain - ischemic (6,5 $\pm$ 7,8), traumatic (3,2 $\pm$ 5,2), other (2,7 $\pm$ 1,9) and postoperative pain (0,9 $\pm$ 1,7),  $p<0,001$ . We also found statistically significant difference between type of sur-