

Abstracts
21st European Conference on General Thoracic Surgery
Birmingham, UK, 26-29 May 2013

F-063

ANALGESIA IN THORACOTOMY PATIENTS: EPIDURAL VERSUS PARAVERTEBRAL TECHNIQUE. A RANDOMIZED, DOUBLE-BLIND, PROSPECTIVE STUDY

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Objectives: Pain control after thoracotomies prevents complications (infections, atelectasies, etc.) and improves respiratory function. The gold standard for post-thoracotomy analgesia is administration of drugs through an epidural catheter preoperatively placed by the anaesthesiologist. The aim of this study is to prospectively compare that technique with drugs administration through a paravertebral catheter.

Methods: From November 2011 to June 2012, 42 patients submitted to thoracotomy have been randomized into two groups for the administration of analgesic drugs, through an epidural in group A or a paravertebral catheter in group B. The last one was placed by the same team of surgeons tunnelling parietal pleura and entering the paravertebral space before thoracotomy closure.

The following parameters have been recorded on scheduled postoperative days: a) pain control using the Visual Analogue Scale; b) respiratory function using FEV1 and ambient air saturation; c) blood cortisol values as index of systemic reaction to pain. Records have been analyzed with the Mann-Whitney or Student's tests for independent variables.

Results: Significant differences have been found in favour of group B concerning both cough and rest pain control ($P=0.002$ and 0.002) and respiratory function in terms of FEV1 and ambient air saturation ($P=0.023$ and 0.001). No significant differences have been found in blood cortisol trends comparing the two groups ($P>0.05$). No complications after placement were recorded in both groups. Collateral effects such as vomit, nausea, low pressure or urinary retention have been observed in 18 of 21 patients belonging to group A. Instead there were no recorded collateral effects in the paravertebral group.

Conclusions: According to our data paravertebral catheter after thoracotomy is more effective than epidural and has no collateral effects. Moreover, its intraoperative placement is easy and without contraindications (spine anomalies and coagulation deficits). Therefore, paravertebral should be always considered as an alternative to epidural catheter.

Disclosure: All authors have declared no conflicts of interest.