Abstracts
22nd European Conference on General Thoracic Surgery June 15-18, 2014, Copenhagen, Denmark

P-211
THE EFFICACY OF CONTINUOUS WOUND CATHETER DELIVERING LOCAL ANAESTHETIC FOR CONTROLLING POST-THORACOTOMY PAIN: A RANDOMIZED DOUBLE-BLIND STUDY
Department of Cardiothoracic Diseases, Thoracic Surgery Unit, Second University of Naples, Naples, Italy

Objectives: To evaluate if continuous wound catheters delivering local anaesthetic as an adjunct to intravenous (IV) patient controlled analgesia (PCA) is a suitable technique for controlling post-thoracotomy pain.

Methods: In the last 2 years, 60 patients undergoing resection of lung cancer via thoracotomy were prospectively enrolled and randomized into two groups: Group A received IV PCA plus continuous wound catheter infusion of 0.5% bupivacaine at 10 ml/h for 48 h and Group B received IV PCA plus continuous saline infusion. In the postoperative period, the following parameters were assessed: (i) IL-6, IL-10 and TNF-α levels (pg/ml) measured before and 6, 12, 24, 36, 48 and 72 hours after operation; (ii) pain level using the visual analogue scale (VAS) 6, 12, 24, 36, 48 and 72 hours after operation; (iii) FEV1% and FVC% evaluated 72, 96 and 120 days after operation; (iv) morphine and Ketorolac consumption. Surgeons, anaesthesiologists, trainee nurses and patients were blinded. ANOVA test was used to compare variables with repeated measures over time.

Results: Forty-four patients completed the study (22 in Group A and 22 in Group B). IL-6 (sphericity: 0.3; \( P < 0.001 \)); IL-10 (sphericity: 0.4; \( P < 0.001 \)); TNF-α (sphericity: 0.6; \( P < 0.001 \)); and VAS (sphericity: 0.7; \( P < 0.001 \)) levels were significantly lower in Group A than in Group B. The FEV1 (sphericity: 0.5; \( P = 0.01 \)) and FVC (sphericity: 0.7; \( P < 0.04 \)) values were significantly better in Group A than in Group B. In Group A versus Group B a significant reduction of morphine (sphericity: 1.0; \( P < 0.01 \)) and Ketorolac (sphericity: 0.7; \( P < 0.001 \)) consumption were also observed.

Conclusions: Continuous infusion of local anaesthetic through a wound catheter associated with IV PCA attenuated the proinflammatory response with a better recovery of respiratory function and a lower consumption of drugs, decreasing the adverse effects of these drugs. Being simpler and safer to use, it may be a valid alternative to other strategies such as intercostal or paravertebral block that are contraindicated in certain patients.

Disclosure: No significant relationships.