

## Effectiveness of wound infiltration with levobupivacaine after thoracotomy in pediatric patients

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**Introduction:** Postincisional wound infiltration with local anesthetics is often performed in many kinds of surgery. Many studies and the indexed literature have led to different results (1). After thoracic surgery postoperative analgesia represents a big concern particularly in pediatric patients. In our study we want to analyze the effectiveness of this treatment compared to pediatric patients without wound infiltration.

**Materials and Methods:** In a prospective randomized study 22 pediatric patients 6-11 years old, undergoing thoracotomy were divided in two groups: in group WI (11 patients) wound infiltration at the end of the operation was performed with levobupivacaine 0.25% (1 ml/cm); in group NI (11 patients) no infiltration was performed. Postoperative pain scores (VAS) and analgesic consumption were measured at awakening at 30 min, 1, 2, 4, 6, 8, 12, 24 hours. Anyway, all patients received a continuous postoperative intravenous infusion of a combined mixture of morphine and ketorolac.

**Results:** 22 pediatric patients were enrolled, 11 assigned to each group. The two groups were comparable as regards sex, age, weight and surgical procedure. There were no significant differences in postoperative analgesic consumption and pain scores in the first 6 hours after the end of the operation. At 8 hours pain intensity was higher ( $p=0.0003$ ) in group NI (VAS  $3\pm0.81$ ) than in group WI (VAS  $1.45\pm1.68$ ). At 12 hours VAS was higher ( $p=0.03$ ) in group NI (VAS  $2.88\pm1.23$ ) than in group WI (VAS  $1.30\pm1.92$ ). The consumption of analgesics between 6 and 12 hours after the end of the operation was higher ( $p=0.02$ ) in group NI than in group WI.

**Conclusion:** It's interesting to observe that the two groups showed no difference in postoperative analgesic consumption during the first 6 hours after the end of the operation. It's likely that the intraoperative analgesia together with the postoperative continuous intravenous infusion of analgesics have been able to cover up the pain during the first postoperative hours of both groups while the group WI, thanks to the wound infiltration, could benefit from a more prolonged postoperative analgesia.

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