

ABSTRACT

Background : Preemptive analgesia, an evolving clinical concept. Involves the introduction of an analgesic regimen before the onset of noxious stimuli, with the goal of preventing sensitization of the nervous system to subsequent stimuli that could amplify pain. Pain is inevitable after any surgery. The purpose of preemptive analgesia is to reduce postoperative pain, contributing to a more comfortable recovery period and reducing the need for narcotic pain control.

Objective : To compare the effect of preemptive analgesia with postoperative analgesia using ibuprofen suppositories in pediatric patients undergoing operations with general anesthesia (with postoperative expected pain moderate to severe)

Methods : in this randomized, double-blind study, thirty children, aging 1 – 18 years, undergoing elective surgery were randomly allocated to received ibuprofen suppositories (n=15) or placebo (n=15), immediately after induction of general anesthesia. The vital signs were monitored during operation. Postoperative pain was assessed at 0 min, 30 min, 60 min, 120 min in recovery room. Postoperative rescue analgesic (fentanyl 1 – 2 mcg/kg IV) was supplemented when pain score was > 4 . The amount of rescue analgesic needed during operation and after operation was also assessed

Results : No significant difference between ibuprofen group and control group was noted in pain scores at 0 min (p=0,415), 30 min(p=0,108), 60 min(p=0,274), 120 min (p=0,254) .It was found that ibuprofen group can reduce the need for opioid during operation compared to control group (p=0,008), but there is no significant difference between two groups after operation(p=0,208).The side effects were mild and similar in both groups.

Conclusion : These results provide evidence that preemptive ibuprofen may reduce the need for opioid during operation, but not improve to reduce the need for opioid after operation and to reduce postoperative pain

Keywords : Postoperative analgesia, general anesthesia, ibuprofen suppositories, preemptive analgesia