عنوان مقاله:

Morphine Treatment in Children With Postoperative Orthopedic Pain: A Systematic Review of Clinical Trial

محل انتشار:

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خلاصه مقاله:

Background: Given the lack of general standards for pain treatment after orthopedic operations, orthopedists and anesthesiologists need evidence to choose analgesic options for children. Therefore, this paper seeks to evaluate the effectiveness of morphine administration in reducing pain after orthopedic surgery in children in different contexts. Methods: To find study trials on the effect of morphine on pain relief in children with orthopedic surgery, we systematically reviewed PubMed, ISI Web of Science, Embase, Google Scholar, Cochrane, and Scopus databases until March ۲۰۲۰. The following keywords were searched: “Morphine,” “ opioid,” “children,” “pediatric,” “preschool,” “child,” “orthopedic,” “orthopedics,” and “orthopedic procedures” to find relevant papers. The quality of articles was evaluated using the Jadad scale. Results: Nine studies were included in the meta-analysis. Analgesia with sublingual buprenorphine had an effect similar to the intramuscular morphine. The effect lasted significantly longer in the buprenorphine group than in the morphine group (P=۰.۰۳). About ۶۷% of the children experienced pain relief after the first injection and ۹۴% after the second injection (after ۱۵ minutes) of morphine. In the propacetamol group, ۷۷% of the children had pain relief. It is recommended to administer propacetamol initially. If the propacetamol is not effective, a subsequent injection of morphine is suggested after the first injection of propacetamol. About ۸۴.۶% of parents in the ketamine group and ۶۶.۶% of parents in the morphine group were very satisfied with the analgesic intervention. However, no significant difference was observed between the two groups (P=۰.۲۹۶). According to two studies, the pain score was significantly lower in the morphine group than in the meperidine group (P<۰.۰۰۵). The morphine administered in combination with ketorolac induced greater analgesia compared to the group receiving morphine

alone (P=۰.۰۰۲). According to three studies, morphine was not superior to ibuprofen in relieving children's postoperative pain (P>۰.۰۰۵). Conclusions: Morphine was more effective than meperidine. However, morphine did not surpass ibuprofen, buprenorphine, and ketamine in treating children with orthopedic pain.

کلمات کلیدی:
Morphine, Children, Orthopedic, Postoperative pain