

The Efficacy and Safety of Ketamine for Perioperative Pain Management of Children Undergoing Surgical and Anesthetic Management. A Meta-analysis of Published Studies

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Background: Post-operative pain control is one of the most important challenges in the surgical setting and has a major impact on patients and on the health system.

Objectives: To determine the safety and efficacy of ketamine in perioperative pain management among children undergoing surgery.

Methods: Literature search involving the analgesic effect of ketamine was done. Nine studies were included. Primary outcomes were pain scales and time to request for first analgesic. Safety measured using adverse events such as post-operative nausea and vomiting (PONV), tachycardia, hallucination and agitation.

Results: There was a significant lower pain score among patient given ketamine compared to patients given control drugs or placebo. In terms of adverse events, there is significant difference in the incidence of tachycardia, whereas no significant differences in PONV, hallucination and agitation.

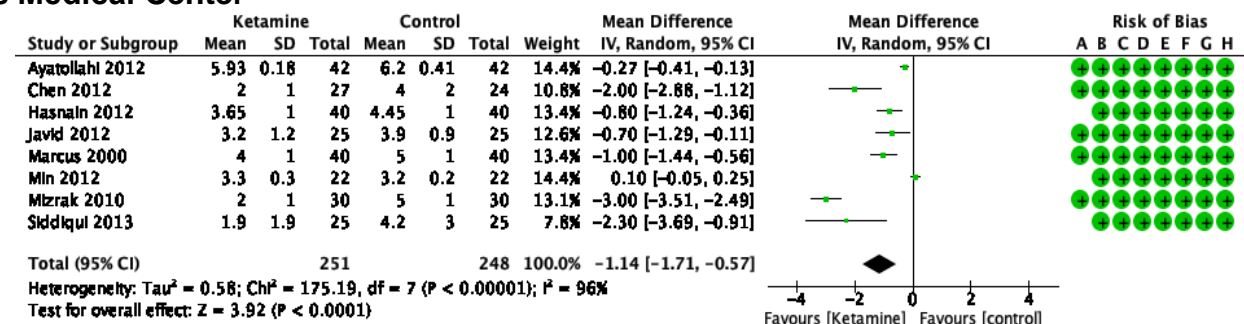


Figure 1: Statistical Analysis for Pain Score

Conclusion: Ketamine is more effective compared to other pain medications in terms of pain score and has no statistical differences in terms of adverse events.

Recommendation: Comparative studies regarding use of ketamine versus other pain medications in the local setting can be considered in future researches.

Keywords: ketamine, post-operative pain, analgesia, pediatrics