

Evaluation of the efficacy of morphine sulfate compared with placebo or analgesic agents in the treatment of acute renal colic

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Introduction: Pain is one of the most common causes of entering patients to emergency departments, and renal colic would be an important cause. Based on the different analgesics used in pain management of renal colic and their positive and negative effects, the appropriate method would be challenging among emergency physicians. Among different analgesics, opium especially morphine sulfate is considered to be an effective one. Regarding this, I decided to do a survey in the efficacy of morphine based on the different published articles.

Materials and Method: In order to gather the data, I made use of "pubmed" and "googlescholar". Thirty articles were collected (in English) and 20 of them were chosen based on consensus of randomised clinical trials, morphine sulfate compared with placebo or analgesics in treatment of acute renal colic.

Findings: Among the selected articles, most designed in comparing morphine with placebo ($n=3$) and other analgesic agents, most NSAIDs, ($n=14$). The results pertained to pain relief in first 20 minutes, with verbal numerical rating scale (NRS) and results showed: 1- morphine sulfate vs placebo ($n=3$); Relative risk=2.35 and Confidence Interval=95%. and 2- morphine vs analgesics, partial pain relief ($n=7$); RR=1.07 CI=95% and 3- morphine vs analgesics, complete pain relief ($n=7$); RR=1.19 CI= 95%.

Conclusion: Morphine sulfate is more effective than placebo and is as effective as analgesics in treatment of acute renal colic.

Keywords: renal colic|morphine sulfate|placebo

