Evaluation efficacy and side effects of Intravenous ibuprofen and Intravenous acetaminophen in pain control after laparoscopic cholecystectomy.

Abstract

Background and objective: The importance of effective postoperative analgesia is now widely accepted. Systemic opioids administration is the gold standard in reducing the severe pain after surgery but some side effects prevent the use of adequate doses of opioids. The aim of this study was evaluation of adding intravenous acetaminophen and ibuprofen on fentanyl in patient-controlled iv analgesia (PCIA).

Methods: In this randomized clinical trial, 90 patients candidate for elective laparoscopic cholecystectomy (ASA 1-2) randomly allocated in three groups; Control group (n = 30) received saline solution, Acetaminophen group (n = 30) received 1g IV Acetaminophen and Ibuprofen group (n= 30) received 800 mg IV ibuprofen.

All patients received patient-controlled (PCA) fentanyl (60 mg in 100 ml saline solution) analgesia. The drugs administered intravenously after surgery and then every 8 hours, for a total of 3 doses. If VAS>3, meperidine 0/5 mg/kg was administered. Pain score, sedation score, nausea and vomiting, satisfaction, and consumption dose of meperidine and fentanyl was evaluated for 24 hours after surgery.

Results: The demographic characteristics of the three groups did not differ significantly. Pain scores in ibuprofen group (3.02), acetaminophen group (2.89) did not differ significantly but in comparison with control group (5.10) was significantly lower. Severity of shoulder pain, nausea and vomiting, sedation, consumption dose of meperidine and fentanyl were similar in both acetaminophen and ibuprofen groups but in comparison with control group was significantly lower.

Conclusion: Finding of this study shows that use of any of the acetaminophen and ibuprofen in postoperative pain control can reduce the need for consumption of opioids and lead to less complications of nausea and vomiting and sedation. In general, it increases satisfaction of patients. Also acetaminophen can be a good alternative for patients who had limited NSAIDs use to postoperative pain control.

Key words: Intravenous ibuprofen, Intravenous anophen, Postoperatpain control