

Comparing the effect of metoclopramide and promethazine on preventing nausea and vomiting after laparoscopic cholecystectomy: A double-blind clinical trial

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Abstract:

Introduction: Nausea and vomiting are conditions that could occur after anesthesia and lead to reduced activity and surgery dissatisfaction. Therefore, according to its importance, this study was accomplished in order to compare the effect of metoclopramide and promethazine on preventing nausea and vomiting after laparoscopic cholecystectomy. **Materials and Methods:** This study was a double-blind clinical trial of 60 ASA class I and II patients aged 18-70 who visited for elective laparoscopic cholecystectomy surgery. Patients were randomly divided into two groups, namely metoclopramide 10mg and promethazine 1mg/kg. The occurrence and intensity of nausea and vomiting, the hemodynamic parameters of patients before induction and one minute, 5 minutes, and 15 minutes after induction, and recovery at moment zero and after 30 minutes, one hour, and 2 hours were measured and recorded. **Results:** Hemodynamic parameters including heart rate (HR) and mean arterial pressure (MAP) were compared for the two groups in different times. Although no significant difference was observed in MAP analysis before recovery, the difference between the two groups during recovery was statistically significant ($P > 0.05$). In HR analysis, the difference between different times was not statistically significant ($P < 0.05$). The level of nausea at different periods, although lower at the promethazine group, was not statistically significant ($P < 0.05$). Importantly, the level of vomiting was compared between the two groups at various times, and although lower in the promethazine group, the difference between the two groups was not statistically significant ($P < 0.05$). The difference in vomiting intensity between the two groups at different times was also statistically insignificant ($P < 0.05$). **Conclusion:** According to the present study, metoclopramide and promethazine have the same effectiveness on preventing nausea and vomiting after laparoscopic cholecystectomy, and are not superior to one another.

Keywords: Metoclopramide, Promethazine, Nausea, Vomiting, Laparoscopic Cholecystectomy