

ABSTRACT:

Background and objectives: Intra Operative Nausea and Vomiting (IONV), is distressing for patients, obstetricians, anesthetists; and may increase the risk of visceral injury during surgery by involuntary uncontrolled abdominal movements. In this study, we aimed to compare the antiemetic efficacy of low dose Ketamine and Dexamethasone to decrease the incidence of IONV during Cesarean Section (CS) under spinal anesthesia.

Methods: The study was performed on 135 full term parturient women with ASA I- II, aged between 18 and 40 years; candidate for cesarean section under spinal anesthesia. The parturients were allocated randomly to three groups using randomized blocking method. The group I (n = 45) received 8 mg Dexamethasone with total syringe volume of 5 ml, while group II (n = 45) received 20 mg Ketamine with total syringe volume of 5 ml, and control group III (n = 45) received 5 ml normal saline. During the intraoperative period, the number of nausea, retching and vomiting episodes were recorded by an anesthetist who was blinded to the drug administered to the patient. Intraoperative hypotension and Bradycardia were recorded. The patient was also requested to report the symptoms of nausea, vomiting and shivering that may occur at the intervals. Vomiting was managed by metoclopramide 10 mg slowly IV. A standardized surgical technique was used in all cesarean sections. Finally the statistical analysis was done using Statistical Package for Social Science version 21 program (SPSS21).

Results: This study, performed on 135 parturient women divided into three groups with 45 members in each one (first group received Dexamethasone, second and third groups were Ketamine and Placebo receivers in respect.). In this study there was statistically insignificant increase in the rate of successful prevention of IONV (P=0.062) and shivering (P=0.550) using preoperative Ketamine and Dexamethasone. But There was statistically significant decrease in the rate of IONV in Ketamine group when compared to Dexamethazone group. The studied groups were comparable as regard to mean arterial blood pressure and heart rate, there was no statistically significant difference between groups during the study period. Also Intraoperatively, there were no statistically significant differences in hypotensive episodes (P=0.885), total Ephedrine administered (the average amount in those who suffered hypotension and received ephedrine) (P=0.623), and bradycardia (P=0.146) between the studied groups. There was statistically significant decrease in the incidence of bradycardia in Ketamine group when compared to Dexamethazone group.

Conclusion: This study showed significant reduction in nausea and vomiting in the Ketamine group compared to Dexamethasone and no significant difference between two groups regarding the hypotension and shivering. It also showed that there was no statistically significant difference between groups receiving Dexamethasone and low dose Ketamine compared to control group during the operation period regarding the decrease rate of nausea and vomiting, hypotension and shivering.

KEYWORDS: Cesarean section; Spinal anesthesia; Ketamine; Dexamethazone; Intra Operative Nausea and vomiting.