

## Comparison of the Effect of Intrathecal Bupivacaine with Intrathecal Ropivacaine on Hemodynamic of Patients under Elective Caesarean Section

### Abstract

**Background and Objectives:** The correct management of delivery and anesthesia is important for maternal and fetal health outcome during cesarean section. The aim of this study was to compare the effect of spinal anesthesia with bupivacaine and ropivacaine on the hemodynamic parameters of pregnant women during cesarean section.

**Methods:** This study was a randomized double blinded clinical trial on 76 women aged 18-40 years, ASA 1&2 were admitted for elective cesarean section. Patients allocated into two equal groups (n=38). Spinal anesthesia was applied by 12.5 mg bupivacaine (group R) & 17.5 mg ropivacaine (group B). The hemodynamic parameters, demographic variables and other variables were recorded during the operation. The statistical analysis was applied by ANOVA using SPSS 16.00 software.

**Results:** Two groups were similar regarding Age, ASA, Cause of cesarean section. Mean of systolic blood pressure and Time of reach to adequate anesthesia (T4 level) in Bupivacaine group and Time of decrease of anesthesia level (T10), Rate of nausea&vomiting, Rate of hypotension and Use of ephedrine in Ropivacaine group were lower significantly (Pvalue<0.05). The rate of surgeon's satisfaction was better in Bupivacaine group. Heart rate, MAP, Rate of bradycardia and Chilling were not significantly different among two groups.

**Conclusion:** Intrathecal Ropivacaine provides stable blood pressure in Women undergoing cesarean section and Recovery time is shorter than Intrathecal Bupivacaine.

**Key words:** Bupivacaine, Ropivacaine, Intrathecal anesthesia, cesarean section.