

# **The effect of adding pethidine to bupivacaine 0.5 and ropivacaine 0.5 on pain intensity in women undergoing elective cesarean section with spinal anesthesia: A double-blind randomized clinical trial study**

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## **Abstract:**

**Introduction:** Proper management of labor and proper anesthesia is very important in order to create pain relief and maintain the health of mother and fetus during cesarean section.

Therefore, this study was performed aimed to compare the effect of adding pethidine to 0.5 bupivacaine and 0.5 ropivacaine on pain intensity in women undergoing elective cesarean section with spinal anesthesia referred to Motahhari Hospital. **Methods:** This double-blind randomized clinical trial study was performed in 2021 on 60 patients undergoing elective cesarean section referred to Motahhari Hospital in Jahrom. Using the random number table, the patients were randomly divided into two groups: bupivacaine-pethidine and ropivacaine-pethidine. Patients' pain was assessed during entry into recovery, exit from recovery, 2, 6, 12 and 24 hours after the surgery. Data were analyzed using SPSS software (version 21) and T-test, Mann-Whitney and Chi-square test.  $P < 0.05$  was considered statistically significant.

**Results:** There was no significant difference between pethidine + ropivacaine and pethidine + bupivacaine groups in terms of pain at different times ( $P > 0.05$ ), pain intensity after cesarean section during recovery and postoperative periods ( $P > 0.05$ ), and opiate use in 12 hours after the surgery ( $P > 0.05$ ). **Conclusion:** There was no significant difference between the groups of pethidine + ropivacaine and pethidine + bupivacaine in terms of pain intensity. The anesthesiologist can use either ropivacaine or bupivacaine in spinal anesthesia, depending on the patient's condition.

**Keywords:** Bupivacaine, Cesarean section, Pain, Pethidine, Ropivacaine