

Effect of Adding Clonidine versus Fentanyl to Intrathecal Hyperbaric Bupivacaine on Spinal Block Characteristics in Abdominal Hysterectomy Surgeries: A Double Blind Controlled Study

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Abstract: Various adjuvants have been used in spinal anaesthesia to avoid intraoperative visceral and somatic pain and prolong postoperative analgesia. Clonidine, partially selective α_2 -agonist drug, is now being used as a neuraxial adjuvant. **Objective:** To compare the duration and quality of analgesia of clonidine and fentanyl used as adjuvants to intrathecal hyperbaric bupivacaine.

Keywords: Bupivacaine, clonidine, fentanyl, analgesia, spinal anaesthesia

1. Materials and Methods

ASA grade 1 and 2 patients (60 patients) were randomly divided into three groups of 20 patients each for abdominal hysterectomy surgeries. Group A received intrathecal 15 mg hyperbaric bupivacaine and 1 ml normal saline, group B received 15 mg hyperbaric bupivacaine and 1 ml (50 μ g) fentanyl, and group C received 15 mg hyperbaric bupivacaine and 1 ml (150 μ g) clonidine. The onset and duration of sensory and motor block, quality of analgesia, and the incidence of side effects in three groups were observed and compared.

2. Results

Three groups were compared based on the demographic data, and the onset of sensory block at T8 level and of motor block was compared among these groups. Significant prolongation of duration of sensory ($P = 0.0000001$) and motor block ($P = 0.0000001$) was found in group C. Significant hypotension was found in group C ($P < 0.05$) and the postoperative pain scoring chart (VAS chart) was 1.07 ± 0.87 in group C and 3.27 ± 0.67 in group B ($P < 0.05$).

3. Conclusion

Intrathecal clonidine is associated with prolonged motor and sensory block, hemodynamic stability, and low postoperative pain score compared to fentanyl.

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