

TITLE

**A PROSPECTIVE RANDOMIZED CONTROLLED STUDY
COMPARING ANAESTHETIC EFFICACY OF INTRATHECAL
NALBUPHINE HYDROCHLORIDE WITH BUPIVACAINE AND
BUPIVACAINE ALONE FOR INFRAUMBILICAL SURGERIES.**

ABSTRACT

BACKGROUND

Adjuvants like opioids are commonly used for the prolongation of anaesthesia during subarachnoid block. Nalbuphine is a synthetic opioid with mixed agonist-antagonist action. It acts on kappa receptors in the dorsal horn of the spinal cord producing analgesia. We designed this randomized study to evaluate the effects of intrathecal nalbuphine in patients undergoing infraumbilical surgeries under subarachnoid block with bupivacaine.

MATERIALS AND METHODS:

In this prospective randomized controlled study, sixty patients of ASA I and II undergoing infraumbilical surgery under subarachnoid block were randomly allocated to two groups (A & B). Group A: 30 patients received intrathecal injection of 3ml of 0.5% hyperbaric bupivacaine + 0.5ml of nalbuphine (0.5mg). Group B: 30 patients

received intrathecal injection of 3ml of 0.5% hyperbaric bupivacaine + 0.5ml of normal saline. The onset of sensory and motor blockade, regression of sensory blockade upto L1, duration of motor blockade and duration of post-operative analgesia were compared between two groups.

RESULTS:

The onset time of sensory block in group A was 1.93 ± 0.45 min whereas in group B was 3.30 ± 0.54 min ($P < 0.0001$). The onset time of motor block in group A was 2.97 ± 0.56 min whereas in group B was 4.50 ± 0.63 min ($P < 0.001$). The duration of motor block in group A and group B was 2.87 ± 0.39 hrs & 2.05 ± 0.34 hrs ($P < 0.001$), while similar statistical significance was observed in between groups for regression of sensory block upto L1. Duration of analgesia in group A (5.54 ± 1.05 hrs) and group B (3.62 ± 0.61 hrs) was statistically significant among groups ($P < 0.001$).

CONCLUSION:

Intrathecal nalbuphine, when used as an adjuvant in SAB improves the quality of intraoperative and postoperative analgesia without side effects.

KEY WORDS: hyperbaric bupivacaine, nalbuphine, subarachnoid block.