



## Pharmacology

**TO COMPARE THE EFFICACY OF INTRATHECAL HYPERBARIC LIGNOCAINE (5%) WITH BUTORPHANOL Vs HYPERBARIC LIGNOCAINE (5%) WITH NORMAL SALINE FOR ELECTIVE LOWER SEGMENT CAESAREAN SECTION SURGERIES.**

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**KEYWORDS :**

**Objective:** To compare the efficacy of intrathecal hyperbaric lignocaine (5%) with butorphanol vs hyperbaric lignocaine (5%) with normal saline for elective lower segment cesarean section surgeries.

**Materials and Methods:** The present study protocol was approved by Institutional Ethics Committee, IEC wherein 50 parturientsof ASA grade I and II physical status scheduled for elective cesarean surgeries were selected for this study. Informed consent was obtained from all the 50 patients. During the Pre-anesthetic visit all the patients were taught to assess the intensity of pain using Ranitidine 300mg orally as premedicationthe night before surgery. Patients were divided into two groups GROUP A and GROUP B of 25 each randomly.

GROUP A: Hyperbaric Lignocaine 5% 1ml (53.3 mg) + Normal saline 0.9(0.2%)

GROUP B: Hyperbaric Lignocaine 5% 1ml (53.3 mg)+ Butorphanol (preservative free) 0.2 ml (0.4 mg)

All the patients were preloaded with 10 ml per kg of lactated Ringer's solution. Under strict aseptic precautions, the lumbar puncture was carried out in midline through L3-L4 / L4-L5 inter space. The required volume of the drug 5% Lignocaine with normal saline 0.9% or 5% Lignocaine along Butorphanol was injected and patient turned to supine position.

Vital signs such as pulse rate, blood pressure, respiratory rate and SpO<sub>2</sub> were monitored every one minute in the first five minutes, every five minutes up to thirty minutes and every ten minutes till the end of the procedure. Onset of sensory block was assessed using pin prick and that of motor block using Bromage Scale. The time of onset of complete motor blockade was taken as time for complete paralysis according to Bromage Scale. Patients were also assessed for the onset, duration and the grade of sedation using the SEDATION SCORE. Post operatively Visual Analogue Scale score was noted every 30 minutes till 6 hours. APGAR scores were assessed for the babies at 1 minute and five minutes respectively in both the groups after delivery.

**RESULTS:** The mean duration of analgesia in Group B was 294.6 minutes and in Group A 75.8 minutes. There is no significant variation in Apgar scores.

**CONCLUSION:** It can be concluded that addition of preservative free Butorphanol 0.4mg to 1 ml of 5% Lignocaine by intrathecal route causes definite prolongation of analgesia together with mild sedation and without significant side effects and hence, can be safely used for lower segment caesarean section surgeries.