

## ABSTRACT

**Background and objective:** To produce selective spinal anesthesia for adult anorectal surgery.

**Study design:** Double-blinded, randomized, controlled trial.

**Setting:** Operating room and postoperative recovery area.

**Patients:** 150 adult, consecutive ASA physical status I, II, III patients randomized in three groups as 50 patient in each group.

**Interventions:** After patients underwent dural puncture in the sitting position at L3-L4 or L4-L5, 0.5% hyperbaric bupivacaine was injected over two minutes: Group 5 mg received 1 mL , Group 7.5 mg received 1.5 mL , and Group 15mg received 3 mL . After sitting for 10 minutes, patients were positioned for surgery.

**Measurements:** Rate of success, level of sensory block and degree of motor block, ability to voiding and hemodynamic stability, pain assessment complications.

**Results:** The study proved that the 5mg dose provided adequate pain relief similar to the 7.5mg dose and the 15mg dose with less motor block and low level of sensory block among groups. The study proved that the 5mg dose provide less (nausea & vomiting), less urine retention, rapid recovery from anesthesia than other groups. The study proved that the 5mg dose and 7.5mg dose provide hemodynamic stability more than 15 mg group.

### **Conclusion:**

We concluded that 5 mg dose of hyperbaric bupivacaine preferred in anorectal surgery because of their advantages such as less postoperative pain, less nausea and vomiting, early patient mobilization and shorter hospital stay and to obtain an adequate level of anesthesia with hemodynamic stability.

· **Keywords:** Anesthesia conduction, Spinal; Anesthetics local; Bupivacaine, Hyperbaric ; Dose-response relationship ,Drug ; Anorectal surgery.