

Effectiveness of two different doses of intravenous labetalol on attenuation of hemodynamic responses to laryngoscopy and intubation in controlled hypertensive patients undergoing major abdominal surgeries under general anaesthesia - A randomized trial

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ABSTRACT

Introduction: Laryngoscopy and endotracheal intubation provoke physiological responses, violate the patient's protective airway reflexes and predictably lead to hemodynamic changes. The present study was aimed to compare the effectiveness of two doses of intravenous labetalol in attenuating hemodynamic responses associated with laryngoscopy and endotracheal intubation by observing changes in the patient's heart rate (HR), systolic blood pressure (SBP), diastolic blood pressure (DBP) and mean arterial pressure (MAP). **Materials and Method:** This was a hospital-based randomized double-blinded interventional study which included 72 patients with controlled hypertension, aged between 20 to 60 years, undergoing elective open abdominal surgery, requiring general anaesthesia and orotracheal intubation. Patients were assigned into two groups of 36 each: Group A: Labetalol 0.15 mg/kg and Group B: Labetalol 0.3 mg/kg diluted with 0.9% normal saline to make up to 10 mL and was given intravenously 5 min before intubation. HR, SBP, DBP, MAP and oxygen saturation (SpO₂) were recorded before induction, at the time of intubation and 1, 3, 5, and 10 min after intubation. **Results:** HR, SBP, DBP and MABP were significantly attenuated in Group B at intubation, 1 min, 3 min, 5 min, and 10 minutes after intubation. **Conclusion:** Labetalol in the dose of 0.3 mg/kg provides better hemodynamic stability than labetalol in the dose of 0.15 mg/kg on sympathetic stimulation due to direct laryngoscopy and endotracheal intubation.

Keywords: Intravenous labetalol, hemodynamic changes, direct laryngoscopy, endotracheal intubation, controlled hypertensive patients, open abdominal surgery.