

HEB

**A prospective study comparing the effect of intravenous
clonidine and Dexmedetomidine on pressor response during
laryngoscopy and tracheal intubation**

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ABSTRACT

Context:

Laryngoscopy and endotracheal intubation cause tachycardia and hypertension and activates the sympathetic nervous system, while the peak rise in blood pressure and HR is usually transient, occurring 30 s after intubation and lasting for <10 minutes. The principle mechanism in hypertension and tachycardia is the sympathetic response which may be the result of increase in catecholamine activity. In present study, an attempt has been made to compare the effect of Dexmedetomidine and clonidine administered by IV infusion on pressor response (blood pressure and heart rate) among patients undergoing tracheal intubation.

Settings and Design:

The study was a prospective, randomized, controlled, single blinded study; carried out in 60 adults patients. The patients were randomly allocated into group Y and group Z of 30 patients each. Clonidine (3µg/kg) or Dexmedetomidine (0.5 µg/kg) diluted in 100 ml NaCl 0.9% were infused over a 10 minute period before induction of anaesthesia.

Statistical Analysis Used:

Statistical analysis was done with non-paired student *t*-test and Paired *t*-tests were used for continuous data. Results were expressed as mean+/-SD.

Results:

In result, we observed a decrease in heart rate, systolic blood pressure (SBP), diastolic blood (DBP) and mean blood pressure after induction in both groups but the decrease was more in patients who received

Dexmedetomidine as premedication. There was an increase in heart rate after laryngoscopy and intubation but the increase was seen more in patients who received clonidine as premedication.

Conclusion:

In this present study we found a decrease in heart rate, systolic blood pressure, diastolic blood pressure and mean arterial pressure after induction and the decrease was more in patients who received Dexmedetomidine as premedication.

Keywords: Clonidine, Dexmedetomidine, Induction

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