

Comparison of efficacy and hemodynamic responses to endotracheal intubation with Glidescope® and Macintosh direct laryngoscope in hypertensive patients

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ABSTRACT

Background: Hemodynamic responses after direct laryngoscopy and tracheal intubation may result in adverse cardiovascular events in patients with or without cardiovascular disease. The videolaryngoscopes, newly intubating device, do not require alignment of oral, pharyngeal and laryngeal axis for visualization of the glottis. It may attenuate the stress responses comparing to standard direct laryngoscopy Macintosh blade. So we hypothesized that intubation performed with video laryngoscope(GlideScope®) would generate a lesser hemodynamic response than conventional method of standard Macintosh in hypertensive patients.

Objectives: This study compared the hemodynamic responses following tracheal intubation, using GlideScope® (GS) and Macintosh (MAC) in well-controlled hypertensive patients .We also examined postoperative airway injury and patient satisfaction as our secondary outcome.

Method: 30 hypertensive patients were enrolled, and randomized to intubation using either GlideScope® (n=17), or MAC (n=13). A standard induction was performed. All intubations were performed by two anesthesiologists. Hemodynamic values (SBP,DBP,MAP,HR)were recorded at baseline, induction, intubation, and at every minute for five minutes after intubation.

Result: There were no significant differences in baseline demographic data between groups. Tracheal intubation was successful on the first attempt in all 30 patients . Hemodynamic responses (SBP, DBP, MAP, HR) before and after intubation between GlideScope® group and Macintosh group were not significantly different. Both groups had no serious complications. All patients were abundantly satisfied.

Conclusion: GlideScope® has no advantage over a laryngoscope (Macintosh) in terms of hemodynamic responses to tracheal intubation in hypertensive patients.