26306 - COMPARING THE GLIDESCOPE (GL) WITH MACINTOSH LARYNGOSCOPE (MAC) FOR INTUBATING PATIENTS WITH A SIMULATED DIFFICULT AIRWAY

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The application of in-line stabilization (ILS) during endotracheal intubation of patients with suspected cervical spine injury makes visualization of the laryngeal inlet difficult¹. We tested the hypothesis that the GL2 provides a better view of the larynx and results in a higher rate of successful intubation than the Mac.

Materials and Methods

Following institutional approval, written informed consent was obtained from ASA I and II patients requiring general endotracheal anesthesia. Exclusion criteria were: history of prior difficult intubation, morbid obesity (body mass index [BMI] > 35 kg/m²), gastro-esophageal reflux disease and poor dentition. Patients were randomized into either GL or Mac. After onset of paralysis, ILS was applied. In GL patients, laryngoscopy was first performed with a Mac, then GL. The view obtained with either was scored³. If "good" (I or IIa), intubation was attempted with the GL. Otherwise, external laryngeal manipulation (ELM) was applied and if the view was "good", the larynx was intubated. If not, the attempt was aborted and the intubation was considered "failed". Patients in the Mac group had the same in the reverse order, with intubation attempted at Mac laryngoscopy. Time to intubation was recorded as the interval from when the blade passed the incisors to confirmation of tube placement by capnography. Means were compared using unpaired Student's T-test and proportions, with Chi-test. $P < 0.05$ was considered significant.

Results (See Table 1)

Discussion

GL provided a good view of the laryngeal inlet in 95% of attempts versus 44% with the Mac. The numbers improved to 100% and 60% with ELM. The success rate of intubation was higher with the GL (100% versus 65% with the Mac), but it took longer. Our preliminary data suggest that in comparison to Mac, GL is a better tool for laryngeal visualization and intubation in patients in whom ILS is applied.

Reference List

1. . Anaesthesia 49, 843-845 (1994).
2. Can. J. Anaesth. 52, 191-198 (2005).
3. Anaesthesia 53, 1041-1044 (1998).

	Macintosh	Glidescope
Male:Female Ratio	3:10	2.6:10
BMI (Kg/m ²)	25.23 (±4.14)	24.6 (±3.6)
“Good” View of Larynx (I or IIa)	17/39 (43.6%)*	37/39 (94.9%)*
“Good” View of Larynx after ELM	12/20 (60%)*	19/19 (100%)*
Success of Intubation	65%*	100%*
Time to Intubation (seconds)	39.1(±10.5)*	56.9(±25.8)*