Original article

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COMPARISON OF THE McGRATH VIDEOLARYNGOSCOPE AND THE MACINTOSH LARYNGOSCOPE FOR ENDOTRACHEAL INTUBATION IN SURGICAL PATIENTS WITHOUT PREDICTORS OF A DIFFICULT AIRWAY

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The study analyzed and compared the effectiveness of the McGrath MAC videolaryngoscope and the Macintosh laryngoscope for endotracheal intubation in patients without predictors of a difficult airway undergoing elective surgery.

The study included 60 patients randomly divided into two groups, each consisting of 30 patients: the McGrath (MG) and Macintosh (MAC). The primary objective of our study was to determine and compare the duration of intubation and laryngeal view according to Cormack–Lehane grade (CL). Secondary objectives were the comparison of duration of laryngoscopy, first attempt intubation success rate, number of intubation attempts, adverse events (mucosal trauma, desaturation SpO2 < 90%, dental damage), number of failed attempts, Backward Upward Rightward Pressure (BURP) maneuver and the use of bougie.

The results of the study showed that the CL grade I was significantly more frequent in the MG group compared to the MAC group (80% vs. 40%, p = 0.004). Duration of laryngoscopy was significantly shorter in the MG group in comparison to the MAC group (7.87 ± 1.70 vs. 6.00 ± 0.95, p < 0.001). However, there was no statistically significant difference between the groups in duration of intubation (26.03 ± 1.32 s vs. 28.30 ± 5.66 s in the MG and MAC, respectively, p = 0.057). Successful intubation on the first attempt was in 96.7% of patients in the MG group and in 86.7% of patients in the MAC group (p = 0.350). During laryngoscopy the BURP the maneuver was significantly more frequent in the MAC group (p = 0.024). Regarding complications, there were no significant differences between the groups.

In patients without predictors of a difficult airway undergoing elective surgery, the McGrath significantly improves glottis view, reduces the duration of laryngoscopy, and the requirement for the BURP maneuver. Regarding intubation time and the rate of successful intubation on the first attempt, the Macintosh and McGrath are comparable.

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