

## **A Comparison between the McGrath Video Laryngoscope and the Macintosh Laryngoscopy in Children with Expected Normal Airway**

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**Abstract :** Background: This prospective, randomized, controlled study was performed to evaluate the usefulness of the McGrath VL compared to Macintosh laryngoscopy in children with expected normal airway during endotracheal intubation, by comparing the time to intubation and ease of intubation. Methods: Eighty-four patients, aged 1-10 years undergoing endotracheal intubation for elective surgery were randomly assigned to McGrath group (n = 42) or Macintosh group (n = 42). Anesthesia was induced with propofol 2.5-3.0 mg/kg and sevoflurane 5-8 vol%. Orotracheal intubation was performed 2 minutes after injection of rocuronium 0.6 mg/kg with McGrath VL or Macintosh laryngoscope. The primary outcome was time to intubation. The Cormack and Lehane glottic grade, intubation difficulty score (IDS), and success rate of intubation were assessed. Hemodynamic changes also were recorded. Results: Median time to intubation [interquartile range] was not different between the McGrath group and the Macintosh group (25.0 [22.8-28.3] s vs. 26.0 [24.0-29.0] s, p = 0.301). The incidence of grade I glottic view was significantly higher in the McGrath group than in the Macintosh group (95% vs. 74%, p = 0.013). Median IDS was lower in the McGrath group than in the Macintosh group (0 [0-0] vs. 0 [0-1], p = 0.018). There were no significant differences in success rate on intubation or hemodynamics between the two groups. Conclusions: McGrath VL provides better laryngeal views and lower IDS, but similar intubation times and success rates compared to the Macintosh laryngoscope in children with the normal airway.

**Keywords :** intubation, Macintosh laryngoscopy, McGrath videolaryngoscopy, pediatrics

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