The McGrath Video Laryngoscope for Failed Intubation

Intubation success rates and glottic views markedly improved with the McGrath video laryngoscope compared to the Macintosh conventional laryngoscope.

Interest is increasing in use of video laryngoscopy both for routine intubation and for rescue intubation when conventional laryngoscopy fails. Researchers in Germany prospectively implemented a study protocol in which the McGrath video laryngoscope would be used for all cases of unanticipated intubation failure with a Macintosh laryngoscope during routine general anesthesia with neuromuscular blockade. During a 6-month period, 61 patients met inclusion criteria: Cormack-Lehane grade III or IV view with a standard Macintosh blade and failure to intubate after a maximum of three attempts by an experienced anesthetist. Video laryngoscopes were provided by the manufacturer.

Rescue tracheal intubation was successful in 58 patients (95%) with the McGrath video laryngoscope. In each of the three cases of failed intubation, a Cormack-Lehane grade I glottic view was obtained, but the operator could not pass the endotracheal tube. Glottic view was grade I (53 patients) or II (8 patients) in all patients with the McGrath; view was improved compared to the Macintosh by 1 grade in 10% of patients, by 2 grades in 80%, and by 3 grades in 10%. In 60 of 61 patients, the percentage of glottic opening (POGO; an alternative laryngoscopy grading system) increased by 50% or more.

Comment: The improvement from 0% of patients with grade 1 or 2 views with the Macintosh laryngoscope to 100% with grade 1 or 2 views with the McGrath video laryngoscope is dramatic, but not surprising, given the clear superiority of video laryngoscopy over conventional laryngoscopy (JW Emerg Med May 2 2008 and JW Emerg Med Jan 23 2009). When intubation is difficult because of poor glottic view, video laryngoscopy can reliably improve visualization, but why not use the video laryngoscope in the first place?

— Emily L. Brown, MD, and Ron M. Walls, MD, FRCPC, FAAEM

Published in Journal Watch Emergency Medicine July 23, 2010

Citation(s):


- Medline abstract (Free)