McGrath MAC Video Laryngoscope Does Not Provide Adequate Direct Views of the Airway

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When used to obtain a direct view — for which it was not designed — the McGrath was associated with more difficult intubation and worse glottic views than a conventional Macintosh laryngoscope.

Video laryngoscopes improve glottic view and first-attempt intubation success compared with direct laryngoscopes. Curved blade designs help “see around corners” and can obtain adequate video views of the glottic inlet even in difficult airways. Concerns about sudden equipment failure and maintenance of direct laryngoscopic skills call into question whether indirect (video) laryngoscopy should be used exclusively. Traditionally shaped video laryngoscopes can be used to obtain direct or video views and may be a solution.

In a single-center study, 158 patients older than 16 years undergoing elective surgery were randomized to intubation with a traditional Macintosh direct laryngoscope, a McGrath MAC video laryngoscope used as an indirect laryngoscope, or a McGrath MAC used as a direct laryngoscope (the video screen was covered). Patients with predicted difficult airways were excluded. All patients were prepared for intubation with fentanyl, propofol, and rocuronium.

All patients were intubated successfully with the assigned device. Median intubation difficulty scale scores (calculated retrospectively after each encounter) and the proportion of patients with scores >0 (0 indicates easy intubation) were higher in the McGrath MAC “direct” group. This was primarily due to poorer views of the airway, increased use of airway adjuncts, and excessive lifting force required. Time to intubation did not differ significantly among the three groups.

Comment: Of course! The McGrath MAC video laryngoscope has a more curved, narrow-profile blade than conventional laryngoscopes and is not designed to obtain direct views. Intubation should be performed using the McGrath MAC's video screen, similar to other hypercurved video laryngoscopes. Although planning for device failure is prudent, it is unreasonable to expect a device designed as an indirect video laryngoscope to perform as a direct laryngoscope if it were to fail. Video laryngoscopy remains the standard first device for emergent intubation.

Citation(s):

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