Does Video Laryngoscopy Improve Glottic View During Emergency Department Intubation?

Video laryngoscopy improved the view in 78% of patients who had poor views on direct laryngoscopy.

Although video laryngoscopy has been shown to be superior to direct laryngoscopy in the anesthesia setting, it has not been studied in the emergency department (ED) setting. In a prospective observational study at two academic EDs, researchers compared laryngoscopic views with direct laryngoscopy and video laryngoscopy using a Karl Storz video Macintosh laryngoscope, which can simultaneously function as a direct and a video laryngoscope. Glottic views in a convenience sample of 198 patients undergoing endotracheal intubation were characterized as good (Cormack-Lehane grade I or II) or poor (Cormack-Lehane grade III or IV) first by looking at the glottis directly and then by looking at the video screen. The study was supported by the manufacturer of the laryngoscope.

Glottic views were characterized as good 80% of the time with direct laryngoscopy and 93% of the time with video laryngoscopy. In the 40 patients with poor views on direct laryngoscopy, video laryngoscopy improved the view in 31 (78%), and, in the 158 patients with good views on direct laryngoscopy, video laryngoscopy worsened the view in 4 (3%).

Comment: The results of this study are consistent with those reported in the operating room environment. Direct laryngoscopy is an antiquated technique that uses centuries-old technology — it should be abandoned.

— Richard D. Zane, MD, FAAEM

Dr. Zane is a colleague of the study authors, but he was not involved in the study.

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