Trainees Using Video Laryngoscopy Are Less Likely to End Up in the Esophagus

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The odds of an emergency medicine resident intubating a patient’s esophagus were nearly seven times higher with direct, rather than video, laryngoscopy.

While video laryngoscopy results in consistently improved glottic views compared with direct laryngoscopy, its benefits in terms of intubation success may be mitigated in experienced users (NEJM JW Emerg Med Dec 2011 and Anesth Analg 2011; 113:1082). However, inexperienced users who have not yet developed extensive skill with direct laryngoscopy are a different story. These authors reviewed six years of data from a single site with a 3-year emergency medicine residency program. They used propensity scoring to compare esophageal intubation rates between intubation attempts with video and direct laryngoscopy.

Emergency medicine residents performed a total of 3425 intubation attempts (on 2677 patients), of which 55% were with video laryngoscopy. The overall incidence of esophageal intubation was 2.8%. The odds ratio for esophageal intubation in patients intubated with direct laryngoscopy compared to video laryngoscopy was 6.9. Patients with esophageal intubation had a higher incidence of adverse events (50% vs. 20%).

Comment: Video laryngoscopy is a requisite skill for emergency physicians. These devices are now standard for primary airway management, and these compelling data provide even further evidence of the need for video laryngoscopic skills. The bottom line is that if you do not have — but know how to use — a video laryngoscope, get one, practice, and then actually use it. For those of us training residents, we absolutely must be training them to be experts in video laryngoscopy.

Citation(s):

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