Survival Rates Similar for Trauma Patients Intubated with Video or Direct Laryngoscopy


This randomized study did not demonstrate meaningful differences between the two methods, but the study excluded almost one third of patients.

In a prospective, randomized trial, investigators compared survival to hospital discharge for severely injured adults intubated with the GlideScope video laryngoscope (303 patients) or traditional direct laryngoscopy (320 patients) at a single trauma center. Anesthesia or emergency medicine residents with at least 1 year of experience intubated all patients using thiopental or etomidate for induction followed by succinylcholine. Patient characteristics, including injury type and severity, were similar for both groups, as was incidence of predicted difficult airway (assessed by Mallampati scores). Patients with suspected laryngeal trauma or extensive maxillofacial injury requiring immediate surgical airway, those with known or suspected spinal cord injury for whom awake flexible fiber-optic intubation was indicated, and patients in cardiac arrest were excluded.

The video laryngoscopy and direct laryngoscopy groups had similar rates of survival (91% and 92%), first-pass success (80% and 81%), and failed airway (0.5% in both groups). Median intubation time was significantly longer in the video laryngoscopy group (56 vs. 40 seconds).

Comment: This seriously flawed study failed to randomize more than 30% of eligible patients, mostly for “operator preference,” thus making the results uninterpretable. The exclusion of patients with predictors of difficult airway (laryngeal and maxillofacial injury, known or suspected spinal cord injury) for whom video laryngoscopy is superior would skew results in favor of direct laryngoscopy. Video laryngoscopy remains the best approach for most emergency airway management cases, including in trauma patients, and this study should not change practice.

Citation(s):

Copyright © 2013. Massachusetts Medical Society. All rights reserved.