Physician-Led Prehospital Airway Management in Trauma

R. Eleanor Anderson, MD; Ron M. Walls, MD, FRCPC, FAAEM

Intubation was successful in 99% of patients, and all surgical airways were successful in this large retrospective series.

To assess airway management of trauma patients in a physician-led prehospital system in England, researchers conducted a retrospective database review of 7256 prehospital trauma intubations from 1991 to 2012.

Forty-six patients (0.6%) received primary surgical cricothyroidotomy. Of the remaining patients, intubation was successful in 99.3%. Among the 52 patients who could not be intubated, 42 (80.7%) underwent rescue cricothyroidotomy; 9 had a supraglottic airway placed, with 2 subsequently receiving a cricothyroidotomy; and 1 breathed with support of a bag-valve-mask. Nonanesthetist physicians had a statistically higher rate of failed intubation than anesthetists (0.9% vs. 0.4%) and were twice as likely to perform a rescue airway intervention. All cricothyroidotomies provided successful ventilation. There were 18 survivors (20%) in the cricothyroidotomy group, and no difference in survival between patients who underwent primary versus rescue cricothyroidotomy.

Comment: Physicians don’t manage airways in most North American out-of-hospital settings, so comparisons are difficult. Increasing use of supraglottic airways and improved laryngoscope technology should further decrease the need for a surgical airway. Regardless, emergency cricothyroidotomy remains an essential, if infrequently performed, maneuver in the management of the failed airway.

Citation(s):

Copyright © 2015. Massachusetts Medical Society. All rights reserved.