Paramedics Prefer the King Laryngeal Tube Airway over Direct Laryngoscopy for Pediatric Intubation

In a small manikin study, time to airway placement was similar for the two approaches, making the KLT airway an option for prehospital ventilation of pediatric patients.

Intubation has been removed from the paramedic scope of practice in some prehospital systems because outcomes are worse than with other ventilation methods. In systems where pediatric intubation is still practiced, training remains a challenge because of the low incidence of pediatric respiratory arrest and the differences in anatomy between children and adults. In a prospective, randomized, crossover study of 25 paramedics and senior paramedic students, researchers compared insertion times and complication rates with the King Laryngeal Tube (KLT) airway (a supraglottic airway that is blindly inserted into the hypopharynx) and endotracheal intubation by direct laryngoscopy in an infant manikin (6-month-old size) during simulated respiratory arrest. Participants had prior training with endotracheal intubation and received brief training with the KLT as part of the study.

Median time to airway placement was similar with the KLT airway and endotracheal intubation (27 and 31 seconds). There were two cases (8%) of esophageal intubation with endotracheal intubation and three cases (12%) of airway leak with the KLT airway (but ventilation was satisfactory). Eighty-four percent of participants preferred the KLT airway.

Comment: Although this study was small and performed under simulated conditions, it demonstrates that paramedics prefer the King Laryngeal Tube airway over endotracheal intubation. Use of the KLT airway should be considered an option for prehospital ventilation of pediatric patients.

— Kristi L. Koenig, MD, FACEP

Published in Journal Watch Emergency Medicine January 27, 2012

Citation(s):