Prehospital Airway Management May Increase Mortality for Some

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Patients with hemorrhagic shock were more likely to die if they received airway management out of the hospital versus in the emergency department.

To determine the association between prehospital airway management and outcomes in trauma patients, researchers performed a secondary analysis of prospectively collected data from the Resuscitation Outcomes Consortium Hypertonic Saline Trial. The analysis included 1116 patients with severe closed blunt head injury (Glasgow Coma Scale [GCS] score ≤8) and 528 patients with hemorrhagic shock (systolic blood pressure either ≤70 mm Hg or 71–90 mm Hg with a heart rate ≥108 beats per minute), who received advanced airway management out of the hospital or in the emergency department (ED).

Most patients received out-of-hospital airway management; these patients had higher injury severity scores and were more often transported by air than patients who received ED airway management. Among patients with hemorrhagic shock, those who received out-of-hospital airway management had lower initial GCS scores (mean, 6.7 vs. 10.3) and fewer penetrating injuries (23% vs. 44%). After adjustment for confounders, out-of-hospital airway management was associated with increased 28-day mortality in patients with hemorrhagic shock (odds ratio, 5.1) and lower mean 6-month Extended Glasgow Outcome Scores (OR, 1.8) in patients with head injury.

Comment: From this retrospective study, we can infer only an association — not causation — between mortality and prehospital airway management for patients with hemorrhagic shock. There are no prior studies proving the benefit of prehospital intubation, though. Prehospital providers should prioritize rapid transport of critically injured patients to more definitive care as long as patients can be oxygenated by bag-mask ventilation or a supraglottic airway device.

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