Airway Management for Adults with Prehospital Cardiac Arrest: Is Intubation Passé

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Patients who were intubated had similar outcomes to those who had a supraglottic airway device inserted.

To compare outcomes for prehospital cardiac arrest patients whose airways are managed with endotracheal intubation or insertion of a supraglottic airway device, researchers performed a literature review of studies published from 1980 to 2013. Five studies involving a total of 303,348 patients (range of mean ages, 55 to 75) were included in the final analysis.

Rates of return of spontaneous circulation were higher with endotracheal intubation in three of the five studies (odd ratios, 1.6 to 1.8). Rates of survival to hospital admission did not differ significantly between groups in the three studies that reported this outcome; similarly, in the two studies that reported rates of survival to discharge there were no significant differences between groups. The rate of favorable neurologic outcome was higher with endotracheal intubation in one study (OR, 1.4) and did not differ between groups in two others.

Comment: This literature review, which found similar outcomes for prehospital cardiac arrest patients who were intubated or had a supraglottic airway device inserted, may not represent the entire picture. One large Japanese study (NEJM JW Emerg Med Jan 15 2013), which is included in this analysis, showed that patients who were bag-mask ventilated were more than twice as likely to have a favorable neurologic outcome as patients who were intubated or managed with a supraglottic airway device. Intubation is a technically challenging procedure, and with more studies showing no benefit to prehospital endotracheal intubation for most patient populations, it is time to act on the preponderance of evidence. Prehospital resuscitation should emphasize rapid transport to the hospital with oxygenation by bag-mask ventilation or supraglottic airway device.

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