Comparison of Three Extraglottic Airway Devices

The i-gel had the fastest insertion time, but its role in prehospital cardiac arrest remains uncertain.

Extraglottic airway devices (EGDs) are valuable tools for emergency medical services providers during cardiopulmonary resuscitation (CPR). Researchers in South Africa compared the performance of three EGDs: the i-gel (a new noninflatable, laryngeal mask–style device), a standard inflatable laryngeal mask airway (LMA), and a laryngeal tube airway (LTA; a dual balloon device that occludes both the esophagus and the laryngeal inlet).

Thirty-six paramedic students with training in all three devices inserted the i-gel, the LMA, and the LTA once each into a standard airway trainer manikin in random order without simultaneous performance of chest compressions. All devices were successful placed on the first attempt. Insertion was significantly faster with the i-gel than with the LTA or the LMA (12.3 vs. 22.4 vs. 33.8 seconds, respectively). Most participants (63%) rated the i-gel as their preferred device, citing speed of insertion as the primary reason.

Comment: Although insertion was faster with the i-gel, 12 seconds still represents an intolerable pause in chest compressions. When any extraglottic airway device is used in patients with cardiac arrest, rescuers should maintain chest compressions during insertion. Nonetheless, the simplicity (no syringe, no inflation step) and ease of insertion of the i-gel make it a promising adjunct in the prehospital setting.

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