The Self-Pressurized Air-Q and LMA Unique Devices Perform Comparably in Children

The two devices had similar success rates, insertion times, and complication rates.

The self-pressurized air-Q intubating laryngeal airway (air-Q SP) is a new supraglottic airway device that equalizes cuff pressure with that of the airway tube and does not require cuff insufflation. Sixty healthy children (age, 3 to 9 years; weight, 20 to 30 kg) undergoing elective surgery were randomized to ventilation using the air-Q SP or the laryngeal mask airway (LMA) Unique. Operators were experienced anesthesiologists who had each performed >50 air-Q SP insertions. Patients with active respiratory infections, developmental delay, or potentially difficult intubations were excluded.

Each supraglottic device was successfully placed on the first attempt without any airway manipulation. No clinically significant differences between the air-Q SP and LMA Unique were noted in median insertion time (12 and 14 seconds, respectively), subjective ease of use, median initial airway leak pressure (16 and 18 cm H₂O), rates of gastric insufflation (93% and 90%), or complication rates (0 and 20%). Complications with the LMA Unique were minor airway trauma, dysphonia, and dysphagia.

Comment: The self-pressurized air-Q intubating laryngeal airway and the LMA Unique performed well and nearly identically in these healthy children. Either device is an excellent choice for elective ventilation or emergency airway management in pediatric patients with normal airways.

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