The i-gel Supraglottic Airway Device Seals Better Than the LMA-Unique in Obese Patients

The i-gel better supports the high pressures needed to achieve ventilation in some obese patients.

Studies of lean patients show that the i-gel supraglottic airway device permits use of higher ventilation pressures than inflatable-cuff laryngeal mask airways (LMAs). To determine whether this benefit also applies to obese patients, researchers performed a randomized crossover study comparing the i-gel and the single-use LMA-Unique in 50 elective surgery patients who were mild to moderately obese (body-mass index, 25–35 kg/m²). For each patient, one of two experienced operators (>100 LMA insertions and >50 i-gel insertions) inserted the two devices in random order and measured leakage pressures using an audible noise detection test and pressure-controlled ventilation test (measures tidal volume at which leak occurs).

In audible noise detection tests, the i-gel had significantly higher mean leakage pressure than the LMA-Unique (23.7 vs. 17.4 cm H₂O). In the pressure-controlled ventilation tests, the devices were equivalent. No clinically meaningful differences were noted in mean insertion times, ease of insertion, and number of insertion attempts.

**Comment:** As in lean patients, the i-gel supraglottic airway has higher seal pressure than the LMA-Unique in patients with mild-to-moderate obesity. Therefore, the i-gel is a better choice for obese patients, many of whom require high pressures for successful ventilation and oxygenation.

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