Awake Video Laryngoscopy–Assisted Intubation of Morbidly Obese Patients

GlideScope-assisted awake intubation was successful in 96% of morbidly obese patients with difficult airways.

Morbidly obese patients often are intubated "awake" due to inherent difficulties in intubation and use of a bag-valve mask. Direct laryngoscopes or flexible fiber-optic bronchoscopes have been used, but video laryngoscopes have not been fully evaluated for this purpose. In a prospective study, researchers evaluated use of a GlideScope to perform awake intubation in 50 morbidly obese (body-mass index, >40 kg/ m²) patients undergoing bariatric surgery who each had at least two potential difficult airway predictors (modified Mallampati score ≥3, presence of teeth, history of sleep apnea, mouth opening or hyomental distance <3 cm). All patients received atomized 2% lidocaine topical anesthesia; additional topical anesthesia or sedation was administered at the operator's discretion. Intubation was performed by one of four senior anesthesiologists with >1 year of experience using a video laryngoscope.

Mean intubation time was 201 seconds; no patient experienced pulse oximeter readings <90%. The overall intubation success rate was 96%, with 54%, 30%, and 12% of patients intubated on the first, second, and third attempts, respectively. Intubation failed in two patients because of intolerance that was deemed secondary to inadequate topical anesthesia. Intubation was successful with additional topical anesthesia and fiber-optic bronchoscopy in one of these patients and with video laryngoscopy and general anesthesia in the other.

Comment: Awake video laryngoscopy–assisted intubation with the GlideScope was highly successful in these morbidly obese patients with difficult airways, demonstrating that this technique is a legitimate option with success likely comparable to that achievable with awake fiber-optic intubation (JW Emerg Med Aug 2 2001).

— Cheryl Lynn Horton, MD, and Ron M. Walls, MD, FRCPC, FAAEM

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- Medline abstract (Free)