Video Intubating Stylet for Nasotracheal Intubation in Patients with Reduced Mouth Opening

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Nasal intubation was quicker and easier with the new intubating stylet than with traditional flexible fiber-optic scopes.

Nasal intubation is required when oral access is limited or nonexistent. Flexible fiber-optic scopes have been the standard tool in this situation, but the technique is challenging and equipment is not readily available in many emergency departments. The Trachway, a newer semirigid intubating video stylet, can be performed and fitted with a small endotracheal tube to facilitate nasal intubation.

Researchers randomized 80 patients with limited mouth opening who were undergoing elective head and neck surgery to nasal intubation with either a 3.5-mm flexible fiber-optic bronchoscope or a 5-mm Trachway video intubating stylet shaped with a 60°–70° angulated distal tip. Patients with bilateral nasal obstruction, sleep apnea, coagulopathy, or reduced neck mobility were excluded. All patients were intubated by senior anesthesia providers. The flexible scope was guided into the trachea, whereas the Trachway was guided only to the glottic inlet before the endotracheal tube was advanced to its final position.

The Trachway resulted in faster time to tube placement compared with the flexible fiber-optic scope (mean, 23 vs. 72 seconds) and less frequent intubation difficulty (0% vs. 45% of procedures categorized as mild, moderate, or profound difficulty on the modified nasal intubation difficulty scale).

Comment: When nasally intubating patients with reduced mouth opening alone, semirigid stylets may work well, but because they lack the maneuverability and length of a flexible scope, they should not be used in patients with infraglottic airway obstruction or laryngotracheal trauma.

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