

CORRESPONDENCE

sented to the trauma emergency department after a motorcycle accident. He was unconscious and unresponsive at the scene. A hard cervical collar was placed. Orotracheal intubation was difficult. He was then nasally intubated at the accident site with a 7.0-mm cuffed endotracheal tube. He presented to the emergency department with a Glasgow Coma Scale (GCS) score of 6. A head computed tomography scan without contrast revealed a left zygoma fracture, fracture at the tip of the C5 spinous process, and a mid-internal capsular bleed on the right side. On hospital day six he developed sinusitis on the right side. The decision was made to convert to an orotracheal intubation. We elected to intubate the trachea fiberoptically. The patient was given intravenous glycopyrrolate, 0.2 mg. Amnesia was afforded by intravenous midazolam, 2 + 2 mg. Finally, skeletal relaxation was attained with rocuronium, 50 mg (0.6 mg/kg). The fiberoptic scope was passed through an 8.0-mm cuffed endotracheal tube. The tip of the scope was then guided through an Ovassapian airway,

and the existent nasotracheal tube was followed into the trachea. The nasotracheal tube was then withdrawn by an assistant. The tracheal rings and carina were reidentified, and the new tube was passed over the fiberoptic scope into the trachea. The entire procedure from setup to completion required 15 min, and the actual conversion took less than 1 min. The patient was extubated 5 days later without complications.

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In Reply:—Drs. Tapnio and Viegas are correct—the conversion seems cumbersome—but it was not traumatic and probably no more risky than alternative approaches. This author has had considerable experience using the endotracheal ventilation catheter (ETVC®, CardioMed Supplies, Gormley, Ontario) for reintubation.¹ The majority of these have involved unsuccessful extubations or replacement of a defective or inappropriate endotracheal tube. Additional experience using the ETVC® as a stylette, acquired since the forenamed publication, has confirmed that it is at least as successful as intubation over a flexible bronchoscope. In addition it offers the advantage of permitting oxygen insufflation or jet ventilation during reintubation or tube exchange. If Drs. Tapnio and Viegas have experience with this tube exchanger and have found it to be too flexible, I would be very interested to learn of this.

I agree that if the glottis could be visualized by oral bronchoscopy, the method described by Tapnio and Viegas would have been simpler to perform. Unfortunately in our case it was not possible to direct the fiberscope posterior to the epiglottis using the oral route. Although an Ovassapian (Williams, Patil, or Berman) airway was not attempted, it is probable that this would not have circumvented the problem of an epiglottis apposed to the posterior pharyngeal wall. A vigorous jaw thrust, and possibly sitting the patient upright, might have facilitated oral fiberoptic intubation.

Drs. Hartmannsgruber and Rosenbaum propose the placement of a #11 Cook airway exchange catheter (C-AEC) orally. If it was not possible to place an endotracheal tube orally, why should it be easier to place the C-AEC? I agree that uninterrupted oxygenation is advantageous in a critically ill patient, but this patient's oxygen needs were satisfactorily met by insufflation. There have been no published clinical trials comparing tube exchangers. The suggestion that the C-AEC is a superior device is conjectural.

They raise an important point: why was a successfully placed nasal tube converted to an oral tube, risking loss of an airway? Nasal tubes are frequently better tolerated than oral tubes and may be associated with less laryngeal injury, although such intubations are commonly complicated by sinusitis. The decision to perform a nasal-to-oral conversion was largely predicated on the concern about bacteremia associated with hypertrophic obstructive cardiomyopathy. Had the conversion been unsuccessful, it would have been difficult to defend. Their point is well taken.

Having performed more than 400 extubations using a tube exchanger, the first 202 of which have been described,¹ I cannot accept Hartmannsgruber and Rosenbaum's contention that either extubation or reintubation of the difficult airway is safer *via* the nasal route. Tube exchangers are more easily secured and better tolerated when nasally placed. I agree that the reintubation of such patients can be problematic, and even with a tube exchanger in place, expert airway management is required.

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Reference

1. Cooper RM: Clinical use of an endotracheal ventilation catheter for airway management: 202 consecutive cases. *Can J Anaesth* 1996; 43:90-3

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