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(Accepted for publication May 11, 1992.)

Anesthesiology  
77:401, 1992

## Intubation and Extubation of the Patient with Pierre-Robin Syndrome

*To the Editor:*—Chadd *et al.*<sup>1</sup> should be congratulated for successfully managing the difficult airway of a 3-month-old patient with Pierre-Robin syndrome. However, even though their airway management techniques were useful, new, and innovative, the techniques ignore two useful and recent developments that might have been additionally helpful.

First, although the initial intubation for fundoplication and gastrostomy with conventional laryngoscopy "was successful after numerous attempts even though the vocal cords were never visualized," it may have been more prudent to accomplish the initial intubation over a fiberoptic instrument. Indeed, fiberoptic laryngoscopy was performed as part of the preoperative evaluation. One of the main lessons from the ASA closed claims studies is that repeated traumatic instrumentation of the upper airway may result in periglottic edema and loss of the ability to ventilate *via* mask.<sup>2</sup> Fiberoptic intubation can be accomplished after induction of anesthesia during continuous positive or negative pressure ventilation either *via* an anesthesia mask that has a dedicated self-sealing fiberoptic port<sup>3</sup> or *via* a laryngeal mask airway.<sup>4</sup> Similarly, the reintubation technique of the patient for tracheostomy involved blindly passing a guide through the laryngeal mask airway into the trachea. What if the guide did not go back into the trachea? Even though "capnography *via* the lumen of the guide" revealed the "presence of carbon dioxide," the reintubation guide could still have been in the pharynx (and perhaps within the rim of the laryngeal mask airway). Carbon dioxide can be retrieved and a normal-looking carbon dioxide waveform obtained from a pharyngeal location. The tracheal reintubation *via* a laryngeal mask airway could also have been visualized fiberoptically.<sup>4</sup>

Second, the guide that was used to facilitate extubation on the 2nd postoperative day could or should have been considered a jet stylet (not just a hollow reintubation stylet).<sup>2,5</sup> Thus, although the laryngeal mask airway was intended to serve as the ventilation backup if spontaneous ventilation around the extubation guide was not adequate, this could have also been accomplished by using the extubation guide as a jet stylet. The laryngeal mask airway would not have been a good choice for backup ventilation if difficulty with ventilation was due to laryngeal edema or laryngospasm. The extubation guide can be used as a jet stylet if it passes out of the ventilation circuit through a self-sealing diaphragm in the elbow connector (see fig. 1 of ref. 6 or fig. 11 of ref. 2),<sup>2,6</sup> whereas the extubation guide cannot be used as a jet

stylet if it passes up the ventilatory hosing, as appears in figure 1 of reference 1.

In summary, my main point is that useful techniques do not need to be mutually exclusive of one another. With respect to the initial intubation, fiberoptic equipment could be used in series with conventional equipment; with respect to the final intubation, the intubation guide through a laryngeal mask airway can be a fiberoptic instrument. Finally, the function of an extubation guide can easily be expanded to that of a jet ventilation stylet.

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(Accepted for publication May 18, 1992.)

Anesthesiology  
77:401-402, 1992

## Position of the Laryngeal Mask Airway

*To the Editor:*—In the recent article by Chadd *et al.*,<sup>1</sup> we were pleased to read that the laryngeal mask airway (LMA) was used to resolve a problem with airway management in a child with Pierre-Robin syndrome. However, we would like to bring out an important misconception

that is shown in figure 1. The drawing shows the proximal end of the cuff of the LMA pressing against the epiglottis. This position was originally thought to be accurate. We have recently completed a study in which a sagittal midline scan was obtained using magnetic