

glottic opening because the epiglottis obstructed the laryngeal inlet. Ultimately, we intubated the patient's trachea using a McCoy laryngoscope (blade #4) with intense cricoid pressure once again.

The AWS is an excellent device for managing a difficult airway. One of the disadvantages of the device, possibly the most crucial disadvantage, however, is that it has only one fixed-size blade, which could cause failure to intubate. The blade, known as an INTLOCK, has an anatomically curved shape that seems to cover most of the adult population, but it can fail in a certain individuals, as described above. The present patient had a long neck with a thyromental distance of 9.5 cm, and hence the distance from his mouth to his larynx was probably longer than the designed length of the INTLOCK. When we attempted to reach the glottis by inserting the blade more deeply, the tip of the INTLOCK consistently advanced upward into the vallecula because of its natural curve. In contrast, in smaller patients the tracheal tube has a tendency to advance caudally, towards the esophagus, probably because the tip of the INTLOCK advances downward when it is inserted more shallowly. We feel that the AWS is an excellent device to manage the difficult airway, but we hope that different-sized INTLOCKS, including ones sized for children, will be available in the near future.

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### *Tracheal intubation through a single use laryngeal mask airway using a guidewire technique*

To the Editor:

We report the case of a failed two-stage tracheal intubation through a single-use laryngeal mask airway (LMA), with subsequent rescue using a guidewire

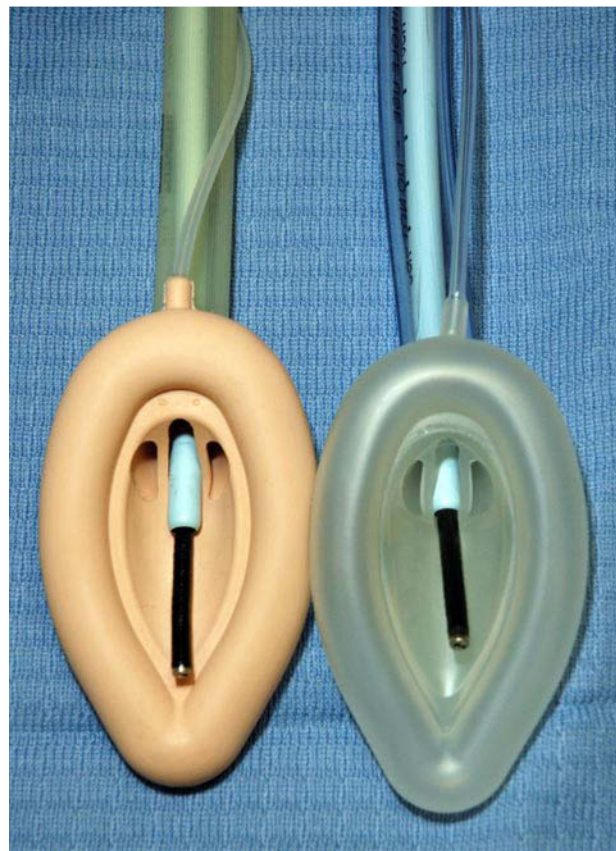


FIGURE the Aintree catheter loaded on a fibroscope and positioned between the aperture bars of a size 4 LMA® Classic and a size 4 LMA® -Unique.

technique. A 67-yr-old male patient weighing 65 kg presented for lumbar decompression. General anesthesia was induced with fentanyl and propofol. Atracurium 40 mg *iv* was administered after confirming adequacy of mask ventilation. Direct laryngoscopy revealed a grade 3 view (Cormack and Lehane) of the larynx despite optimization of head and neck position, and use of McCoy laryngoscope blade. A size 4 LMA® -Unique (Intavent Orthofix, Maidenhead, UK) was inserted, good seal was achieved, and adequate ventilation of the lungs was possible. We subsequently attempted to intubate using an Aintree intubation catheter (AIC) loaded on a fibroscope. A full view of the larynx was visible through the LMA and the fibroscope was easily advanced into the trachea. However, it was not possible to pass the Aintree catheter beyond the LMA aperture bars, despite adequate lubrication and rotational movement. At this stage a decision was made to pass a guidewire through the working chan-

nel of the fibroscope. As an appropriate guidewire was unavailable, a guidewire from the retrograde intubation set (Cook® critical care) was passed into the trachea. The fibroscope was removed, leaving the guide wire in the trachea. A guiding catheter from the same retrograde set was advanced over the guidewire, a size 8.0 mm internal diameter (ID) tracheal tube was successfully railroaded over the catheter, and ventilation of lungs was confirmed. The use of a bronchoscope adapter swivel angle piece connector enabled us to ventilate the patient's lungs during fibreoptic-assisted tracheal intubation. The patient's oxygen saturation remained between 98–100% throughout.

In a case of unanticipated difficult intubation, the Difficult Airway Society guidelines<sup>1</sup> recommend secondary tracheal intubation using a fibroscope through an intubating LMA or LMA® -Classic. The single-use LMA® -Unique used in this case is made of polyvinyl chloride while the reusable LMA® -Classic is made of silicone. Difficulty in advancing a 6.0-mm ID tracheal tube through a size 3 LMA® -Unique has been previously reported.<sup>2</sup> Our subsequent investigation revealed that the gap between the aperture bars in a size 4 LMA® -Unique is smaller as compared to the size of a 4 LMA® -Classic (Figure). Measurements taken using digimatic callipers revealed a difference of 1.2 mm in the resting state. The bars are stretchable and the gap between the bars of LMA® -Unique can be increased up to 11.2 mm on maximum stretch. The LMA® -Unique is the only one single-use LMA to have aperture bars. Although these bars are designed to prevent occlusion of the lumen of the LMA tube by the epiglottis, they are a potential hindrance for the passage of an endotracheal tube, AIC and fibroscope. The guidewire from the retrograde set is 110 cm in length and 0.38 mm in outer diameter. Our experience further establishes the pertinent concern in use of the LMA® -Unique for secondary tracheal intubation in a case of unanticipated failed intubation.

The intubating LMA (ILMA; LMA-Fastrach™) is a useful device for tracheal intubation in both anticipated and unanticipated difficult tracheal intubation.<sup>3</sup> An advantage is that it enables ventilation of the lungs between intubation attempts. Even though the ILMA has a high success rate for blind tracheal intubation, the success rate can be further improved by fibreoptic guided intubation.<sup>4</sup> Recently the laryngeal mask airway CTrach™ (LMA CTrach™) has been used for tracheal intubation in patients with unexpected difficult airways.<sup>5</sup> The LMA CTrach™ is identical to the ILMA but in addition it has integrated fibreoptic that provides a view of the larynx that allows visualization of the endotracheal tube as it is advanced through the

vocal cords. Due to potential difficulty in secondary tracheal intubation using the LMA® -Unique, either the LMA® -Classic or ILMA should be available for managing difficult intubation.

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