References

- 1 Beamis JF. Modern use of rigid bronchoscopy. In: Bolliger CT, Mathur PN (Eds). *Interventional Bronchoscopy*. Karger Publisher; 2000: 22–30.
- 2 Lu P, Brimacombe J, Yang C, Shyr M. ProSeal versus the Classic laryngeal mask airway for positive pressure ventilation during laparoscopic cholecystectomy. *Br J Anaesth* 2002; 88: 824–7.

Cobra PLA™ can overcome LMA failure in patients with face and neck contractures

To the Editor:

Failure to place a laryngeal mask (LMA) is a rare event. In a large series, Verghese and Brimacombe have reported a failure rate of LMA placement in 0.19% in over 11,000 patients.¹ We face a higher incidence of failure to place LMA in patients with post-burn contracture of the face and neck. This may be attributed to restricted head extension and, occasionally, limited mouth opening. With the recent introduction of the Cobra Peri-Laryngeal Airway (Cobra PLA™; CPLA), we have been able to overcome two such LMA failures in the past six months while attempting to secure the patient's airway, in the absence of an appropriately-sized fibroscope.

In the first case, a 12-yr-old male patient (32 kg) with a year-old burn contracture of face and neck was scheduled for contracture release and skin grafting. The post-burn contracture also involved his left temporomandibular joint with resultant limited mouth opening (little more than an index finger). After induction of anesthesia with halothane, rigid laryngoscopy was attempted, but neither the glottis nor the epiglottis could be visualized despite adequate depth of anesthesia. Limited head extension and mouth opening prevented alignment of the laryngoscope blade to the oropharyngeal axis. Placing a #3 LMA was attempted, but failed due to limited mouth opening. A #2 ½ CPLA was arranged. The well-lubricated, deflated device was inserted blindly with the patient's head in the fixed, semi-flexed position. Upon inflation of the cuff, easy ventilation was recorded and the surgery was completed uneventfully.

The second case was a nine-year-old male patient (29 kg) with a severe seven-month old burn contracture of the face and neck, scheduled for contracture release and skin grafting. On examination, the chin was fixed to the anterior chest wall, with no extension of the head or neck. Limited mouth opening (two-finger)

was noted. Following inhalational induction with halothane, conventional laryngoscopy was tried but failed. A #3 LMA was placed with some difficulty. However, ventilation was inadequate due to improper peri-glottic seal, despite several manipulations. A size #2 LMA did not solve the problem. It was next decided to use a size #2 ½ CPLA. This also posed a problem during introduction, especially during negotiation of the oropharyngeal curve. With a little patience, placement was successful. Adequate ventilation was noted upon inflation of the cuff. It was next decided to try passing a 5.5-mm internal diameter cuffed endotracheal tube via the CPLA, but this failed. A strong resistance was felt at about 4 to 5 cm depth, possibly at the level of acute oropharyngeal angulation. No further intubation attempt was made. Surgery was safely completed using CPLA as a ventilatory device.

The cause of failure to obtain an adequate LMA seal in the second case was due to inadequate placement. This was because the index finger could not conform to the acute oropharyngeal angulation while attempting to seat the device. As a result, the LMA had to be advanced to its final position with resulting improper placement.

CPLA is a device, which is inserted blindly without use of the index finger. This is especially advantageous in patients with limited mouth opening. Furthermore, the CPLA does not require a seal around the periglottic structure for proper ventilation, as required with the LMA. Thus the CPLA can be a safe alternative to the LMA in patients with contractures of the face and neck, and limited head extension and mouth opening.

Rashid M. Khan MD*

M. Maroof MD†

Anurag Johri MBBS*

Moin Ashraf DA*

Divya Jain MBBS*

JN Medical College, Aligarh, India*

University of North Carolina, Chappel Hill, USA†

E-mail: replytomoin@rediffmail.com

Reference

- 1 Verghese C, Brimacombe JR. Survey of laryngeal mask airway usage in 11,910 patients: safety and efficacy for conventional and nonconventional usage. *Anesth Analg* 1996; 82: 129–33.