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Severe Dysphonia after the Use of a Laryngeal Mask Airway

To the Editor:—We read the article by Cros *et al.*¹ regarding the case reports of recurrent laryngeal nerve palsy and arytenoid dislocation after the use of a laryngeal mask airway (LMA), and would like to make the following observations. The authors state that in cases 1 and 2, a misplacement of the LMA could be excluded because there was no obstruction to the breathing and because it appeared to be positioned correctly. However, it has been shown that even a malpositioned mask may function well and appear to be positioned correctly,² but the cuff may not occupy its intended position when verified by fiberoptic.³

It is not clear whether the authors used the standard technique of insertion⁴ or any other alternate technique. The current evidence suggests that the use of the standard technique, which is based on the physiologic principle of swallowing, reduces the incidence of malpositioning.⁵ However, the standard insertion technique is not easy to master, and there is a long learning curve.⁶ Moreover, even with a nonstandard technique, a satisfactory airway can usually be achieved. This encourages beginners to adopt a complacent attitude toward practicing the standard technique, such a tendency should be discouraged. During the insertion of an LMA, close attention to detail is necessary, *e.g.*, during cuff inflation the mask should not be held down but allowed to take up the final position freely and only after this step the tube should be fixed facing caudally.⁴ Holding the mask down at the time of cuff inflation may lead to transmission of excessive pressure on the surrounding mucosa by allowing the mask to be fixed in an inappropriate position.

In case 2, the LMA was lubricated with silicone spray. Silicone based lubricants are contraindicated for use with an LMA as they degrade the material and alter the dimensions of the cuff.⁴ A significant change in cuff compliance and shape could exert uneven pressure on the surrounding mucosa, leading to the complication described in this patient.

The LMA is a very user-friendly and safe device; severe morbidity

after the use of an LMA is rare and may further be reduced by meticulous preparation and the adoption of the standard technique.

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References

1. Cross AM, Pitti R, Conil C, Giraud D, Verhuist J: Severe dysphonia after use of a laryngeal mask airway. *ANESTHESIOLOGY* 1997; 86:498-500
2. Ball AJ: Laryngeal mask misplacement—a non problem. *Anesth Analg* 1995; 81:204
3. Du Plessis MC, Marshall Barr, Verghese C, Lyall JRW: Fiberoptic bronchoscopy under general anaesthesia using the laryngeal mask airway. *Eur J Anaesthesiol* 1993; 103:363-5
4. Brimacombe JR, Brain AJ, Berry AM: The Laryngeal Mask Airway Instruction Manual. 3rd ed. Intavent 1996.
5. Brimacombe J, Berry A: Insertion of the laryngeal mask airway—A prospective study of four techniques. *Anesth Intensive Care* 1993; 21:89-92
6. Brimacombe J: Analysis of 1500 laryngeal mask uses by one anaesthetist in adults undergoing routine anaesthesia. *Anaesthesia* 1996; 51:76-80

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In Reply:—In cases 1 and 2, the laryngeal mask airway (LMA) was inserted by an anesthetist who routinely use this technique. Insertion was performed in both cases with the standard technique described and recommended by Brain.¹ The cuff was fully deflated before insertion, and the LMA was not held during inflation.

After placement and cuff inflation, signs of correct placement were checked, (*i.e.*, forward projection of the thyroid and cricoid cartilages, short tubing protruding from the mouth, black line facing cranially, no audible sound of obstruction, and no difficulty in manual ventilation). I agree with Drs Bapat and Verghese that a misplacement could not be completely eliminated as correct position was not confirmed by fiberoptic.

However, if a malposition had resulted in a superior laryngeal nerve palsy, this could not explain other symptoms (*i.e.*, severe dysphagia and laryngeal incompetence lasting several months). Progressive worsening of dysphonia and dysphagia and the duration of symptoms are in favor of an ischemic inflammatory reaction located in the posterior cricoid region.

I agree that silicon spray used for lubricating the LMA in case 2 may have degraded the structure of the material, resulting in lower compliance of the cuff and higher pressure transmitted on the pharyngeal mucosa. Whatever were the exact causes, the most probable hypothesis is an excessive pressure exerted against the pharyngeal