THE LARYNGEAL MASK FOR INTRAOCULAR SURGERY

Sir,—Ripart, Cohendy and Eledjam [1], in commenting upon the article by Lamb, James and Janicki [2], described two untoward incidents associated with the use of the laryngeal mask airway (LMA) for controlled ventilation during intraocular surgery. As a result, they have abandoned the technique. They have done so without relating the incidents to their total experience of the LMA and without quantifying the complications associated with tracheal intubation.

Our own clinical experience of LMA use with controlled ventilation in intraocular surgery during the past 2 years supports the original contentions of Lamb, James and Janicki [2]. Our audit data show that, in 593 uses, there were six difficult placements (five were eventually successful, while in the sixth the trachea was subsequently intubated); one LMA became displaced during the procedure but was repositioned quickly and successfully and there was one case of gastric distension because of malfunction which was corrected before surgery could commence. Only the last two incidents presented a significant clinical problem (0.3% of the total use). Neither resulted in morbidity. Over the same period this compared with a 1.6% incidence of serious problems with the use of tracheal tubes (three of 187 uses): one case of laryngeal spasm, one difficult intubation and one episode of pulmonary oedema at extubation.

For all our surgical specialties, 135 incidents were reported in 3,974 tracheal intubations (3.4%): 120 difficult placements and 15 episodes of laryngeal spasm. There were 52 incidents in 5,655 LMA uses (0.9%): 45 difficult placements and seven episodes of laryngeal spasm (chi-square = 73.93; P < 0.001).

With sufficient experience, use of the LMA can provide improved operating conditions for intraocular surgery and a smooth recovery with a small incidence of serious problems. Contrary to the anecdotal comments of Ripart, Cohendy and Eledjam, our data support use of the LMA for controlled ventilation in intraocular surgery.

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Sir,—Ripart, Cohendy and Eledjam [1] described two cases of LMA displacement associated with use in paralysed patients undergoing artificial ventilation for intraocular surgical procedures.

These cases serve to illustrate the dangers of incomplete understanding of how to use this deceptively simple instrument. Because of its anatomical position, the LMA provides a leak-free seal permitting positive pressure ventilation, provided that:

(1) The laryngeal muscles, including the vocal cords, remain sufficiently relaxed throughout the procedure;
(2) total resistance to inspiration is not permitted to increase to a point exceeding the leak pressure;
(3) it is inserted, inflated and secured correctly in the first instance.

Having observed anaesthetists of all grades in 16 countries learning to use the LMA, I am confident that the commonest cause of the sequence of events described by Ripart, Cohendy and Eledjam is failure to maintain a level of anaesthesia or neuromuscular block appropriate for the procedure.

The correctly placed and secured LMA does not migrate spontaneously from its position during surgery. However, it is sometimes forced upwards out of the hypopharynx if crico-pharyngeal muscle tone is permitted to increase. Much more frequently, leaks are heard initially because the vocal cords begin to close, associated with an inadequate degree of neuromuscular block. One of two errors is then made commonly:

(1) Inflation of excessive air into the cuff, which in turn causes the mask to be forced upwards out of the hypopharynx, exacerbating the leak.
(2) Attempting to readjust the mask in the belief that it is misplaced, resulting in stimulation to the larynx and thus further increasing the tendency for this to close, so again exacerbating the original leak. This misunderstanding is perhaps particularly likely when the device is hidden from view under drapes.

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TRACHEAL TUBE CUFF INFLATION AS AN AID TO BLIND NASOTRACHEAL INTUBATION IN A PATIENT WITH CERVICAL SPINE INJURY

Sir,—I read with interest the article of Van Elstraete and colleagues on tracheal tube cuff inflation as an aid to blind nasotracheal intubation [1]. Inflation of the tracheal cuff in the oropharynx is assumed to centre the tip of the tube and to direct it anteriorly towards the larynx. The authors showed a high success rate when the technique was used in anaesthetized and paralysed patients with a normal airway, whose head and neck can be manipulated safely to place the head in the "sniffing" position before tracheal intubation. However, it remains to be established if the technique improves the success rate of blind nasotracheal intubation in cases of difficult intubation.

I have recently tried the technique for awake blind nasotracheal intubation in a 26-yr-old male patient who suffered cervical spine fracture. The spinal cord was intact and the patient was brought to the operating room in traction for cervical spine fixation. Traction or manual in-line stabilization, although reducing cervical spine movement, places the oral, pharyngeal and laryngeal axes out of alignment and makes orotracheal intubation more difficult, therefore, it was planned to proceed with awake blind nasotracheal intubation [1]. Inflation of the tracheal cuff in the oropharynx is assumed to centre the tip of the tube and direct it anteriorly towards the larynx. The authors showed a high success rate when the technique was used in anaesthetized and paralysed patients with a normal airway, whose head and neck can be manipulated safely to place the head in the "sniffing" position before tracheal intubation. However, it remains to be established if the technique improves the success rate of blind nasotracheal intubation in cases of difficult intubation.

This experience demonstrated that the cuff inflation technique can facilitate awake blind nasotracheal intubation in cases of cervical spine injury which may not allow or may even contraindicate manipulation of the head and neck to achieve the "sniffing" position.

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Sir,—We agree that this technique may be of use in such patients. Although patients in our study were anaesthetized and paralysed