

CORRESPONDENCE

Medhat Hannallah, M.D., F.F.A.R.C.S.
 Assistant Professor
 Department of Anesthesia
 Georgetown University Medical Center
 3800 Reservoir Road NW
 Washington, DC 20007

Reference

1. Ramsey M III: Blood pressure monitoring: Automated oscillometric devices. *J Clin Monit* 7:56-67, 1991

(Accepted for publication March 22, 1993.)

Anesthesiology
 78:1197, 1993
 © 1993 American Society of Anesthesiologists, Inc.
 J. B. Lippincott Company, Philadelphia

The Laryngeal Mask Airway as an Aid to Intubation in Patients at Risk of Aspiration?

To the Editor:—We read with interest the case reports by Asai on the use of the laryngeal mask airway (LMA) for tracheal intubation in patients at increased risk of aspiration of gastric contents.¹ The LMA was used to aid awake intubation (case 1) and to facilitate rapid-sequence induction (case 2). Both techniques offer some theoretical advantages over other methods of achieving intubation in nonfasted patients, but we believe there are limitations and potential hazards that should be taken into consideration.

As Benumof stated in his accompanying editorial, it may not be prudent to use the LMA in a rapid-sequence induction.² He argued that the glottis may not remain static after induction if any upper airway reflexes are intact and that the successful passage of the fiberoptic bronchoscope does not guarantee subsequent placement of the endotracheal tube. We would like to add that there is documented evidence that the laryngeal inlet tilts anteriorly by 10–40° in all patients with the LMA *in situ* following the application of cricoid pressure and is likely to make the passage of an endotracheal tube more difficult by making the angle of approach less favorable.³ An apparently easy fiberoptic intubation suddenly might become difficult after the application of cricoid pressure. We suggest assessing the effect of cricoid pressure under direct vision before induction if this technique is thought justified but believe that the safer option is to attain intubation before induction, as in case 1.

A further concern is that the benefit of preoxygenation may be reduced when the LMA is used to facilitate rapid-sequence induction. It is difficult to maintain an air-tight seal during insertion of the fiberoptic bronchoscope and endotracheal tube down the LMA, and there will be air entrainment.

Asai states that aspiration may occur in sedated patients but that stimulation with the LMA is minimal, and he reported no cases of vomiting in 25 patients. However, a study assessing the use of the LMA for awake diagnostic fiberoptic bronchoscopy in fasted patients using topical anesthesia and sedation reported several associated problems such as gagging (16%), coughing (12%), recurrent swallowing (18%), and excessive salivation (6%), indicating that the LMA can be quite stimulating.⁴ Vomiting with the LMA *in situ* is

particularly dangerous if the tube of the LMA is occluded with the fiberoptic bronchoscope and endotracheal tube. In these circumstances, gastric contents might be reflected into the trachea, especially if the protective reflexes are obtunded by sedation, local anesthesia, and the patient's clinical state.

In conclusion, we believe that both techniques described by Asai are potentially hazardous and cannot be advocated for routine use in the light of current evidence. We believe that this is a particular area of LMA use that requires large comparative studies to fully evaluate the risks involved.

J. Brimacombe, M.B., Ch.B., F.C.Anaes.
 Senior Lecturer

A. Berry, M.B., Ch.B., F.F.A.R.C.S.
 Senior Registrar

Royal Perth Hospital
 Wellington Street
 Perth 6001, Australia

References

1. Asai T: Use of the laryngeal mask for tracheal intubation in patients at increased risk of aspiration of gastric contents. *ANESTHESIOLOGY* 77:1029-1030, 1992
2. Benumof JL: Laryngeal mask airway: Indications and contraindications. *ANESTHESIOLOGY* 77:843-846, 1992
3. Brimacombe J: Cricoid pressure and the laryngeal mask airway (letter). *Anaesthesia* 46:986-987, 1991
4. Brimacombe J, Newell S, Swainston R, Thompson J: A potential new technique for awake fiberoptic diagnostic bronchoscopy: Use of the laryngeal mask airway. *Med J Aust* 156:876-877, 1992

(Accepted for publication March 23, 1993.)