

Letters to the editor

Laryngeal mask airway in ENT surgery

Dear Sir,

I read with keen interest the article 'The laryngeal mask airway in ENT surgery' by R. E. Daum and B. J. O'Reilly (*Journal of Laryngology and Otology*, 1992; **106**: 28–30). They concluded from their work that they would advocate the introduction of laryngeal masks to improve safety and speed as well as to economize.

The use of laryngeal masks is not without its problems. In a prospective study of 122 routine adult ENT surgical procedures (excluding tonsillectomies and palatal surgery), laryngeal masks were used in eight cases, there was injury to the soft palate/uvula in two cases (awaiting publication). In one case a catgut stitch had to be inserted into the soft palate at the base of the uvula. Both these two patients had to remain in hospital for a further two days for adequate pain relief. There has been at least one other case report of injury to the uvula due to improper use of a laryngeal mask.

Great care has to be taken with the use of laryngeal masks in ENT surgery, but in experienced hands I am sure they are safe, quick and economical.

Yours faithfully,
Art A. P. Connolly, F.R.C.S.,
ENT Department,
St George's Hospital,
Blackshaw Road,
London SW17 0QT.

Reply:

Dear Sir,

We were most interested to hear of the problems encountered by Mr Connolly in two of the eight cases in which the laryngeal mask airway (LMA) was used in this study. In all new techniques there is a learning curve and we ensured that our junior anaesthetists were carefully instructed and then supervised when they first used the LMA. Usually the insertion of the LMA is straightforward and atraumatic. On the rare occasion when it proves difficult to position the LMA, it should not be forced against the patient's soft palate but manoeuvred into position by a gloved finger. Most of the 217 cases we reported had their LMA inserted by unsupervised juniors and no patient suffered an injury to the soft palate or uvula.

Experience of the LMA in this hospital is now quite extensive with nearly 2000 cases throughout all specialities; none of these patients has required an extended inpatient stay because of injuries sustained from insertion of a LMA. Indeed, in the experience of ourselves and others (Jensen *et al.*, 1982; Brain *et al.*, 1985; Broderick *et al.*, 1989) sore throats are much less common after LMA insertion than after endotracheal intubation.

Yours faithfully,

B. J. O'Reilly,
R. E. O. Daum,
Princess Mary's Royal Air Force Hospital,
Halton,
Aylesbury,
Bucks HP22 5PS.

References

- Brain, A. I. J., McGhee, T. J., McAteer, E. J., Thomas, A., Abu-Saad, M. A. W., Bushman, J. A. (1985) The laryngeal mask airway. Development and trials of a new type of airway. *Anaesthesia*, **40**: 356–361.
- Broderick, P. M., Webster, N. R., Nunn, J. F. (1989) The laryngeal mask airway. A study of 100 patients during spontaneous breathing. *Anaesthesia*, **44**: 238–241.
- Jensen, P. J., Hommelgaard, P., Sodergaard, P., Eriksen, S. (1982) Sore throat after operation: influence of tracheal intubation, intra-cuff pressure and type of cuff. *British Journal of Anaesthesia*, **54**: 453–456.

Emergency cricothyroidotomy

Dear Sir,

I read with interest the Review Article on emergency cricothyroidotomy by Milner and Bennett (1991). Further inspection of the literature shows that there is still controversy concerning this technique.

Kuriloff *et al.* (1989) found a 52 per cent incidence of airway complications in 31 surviving patients treated by elective cricothyroidotomy. Subglottic stenosis accounted for 50 per cent of these. Frei *et al.* (1990) reported a high rate (18 per cent) of damage to the laryngeal cartilages using the 'Quick Trach' method in 55 cadavers. In their prospective study Holst *et al.* (1990) showed that only 10 out of 19 patients tested after cricothyroidotomy were found to have normal voices.

As an alternative, tracheostomy seems to have fewer drawbacks, even in children (Freezer *et al.*, 1990). (Waldron *et al.* (1990) noted that in a series of 150 consecutive tracheostomies in adults, no cases of symptomatic stenosis occurred. They stated that recent moves away from tracheostomy should only continue if the alternatives prove to have an even lower complication rate.

In their paper, Esses and Jafek (1987) recommend rapid conversion from a cricothyroidotomy to a standard tracheostomy if the need for airway control is likely to be prolonged. They also state, as do Kuriloff *et al.* (1990), that cricothyroidotomy is not to be recommended in the presence of laryngeal inflammation or infection. This argument is supported by Cole and Aguilar (1988) who felt that laryngeal pathology of any kind was an absolute contraindication to cricothyroidotomy if complications were to be avoided.

In the article by Milner and Bennett (1991) the performance of a cricothyrotomy is advocated as a standard treatment for a suspected respiratory injury associated with burns. The authors also note that the high incidence of subglottic stenosis following unconverted cricothyroidotomy encountered by Chevalier Jackson could have been attributed to pre-existing laryngeal inflammation.

Inhalation injuries from burns cause significant laryngeal inflammation. The prospect of an increased incidence of complications as a consequence of performing cricothyroidotomy on such patients must be considered.

Cricothyrotomy may not be the safest and quickest way of obtaining an airway when intubation is difficult or contraindicated (Milner and Bennett, 1991). Whilst serving in the Gulf, I only encountered one patient whose severe burns necessitated tracheal intervention to secure an airway. The General Surgeon who had performed the operation found that the patient's neck was so oedematous as a result of the burn that the thyroid and cricoid cartilages could not be palpated and the cricothyroid membrane could not be identified. A standard tracheostomy was successfully performed.

Clearly a prospective trial is needed to investigate the role of cricothyrotomy or cricothyroidotomy in such a setting. A protocol was designed for this purpose, but the eventual lack of casualties prevented us from undertaking it—a situation that can hardly be regretted.

Yours faithfully,

J. A. J. Deans,
Major, Royal Army Medical Corps.,
Ear, Nose and Throat Department,
Sunderland Royal Infirmary,
New Durham Road,
Sunderland SR2 7JE.

References

- Cole, R. R., Aguilar, E. A. (1988) Cricothyroidotomy versus tracheotomy: an otolaryngologist's perspective. *Laryngoscope*, **98**: 131–135.
- Esses, B. A., Jafek, B. W. (1987) Cricothyroidotomy, a decade of experience in Denver. *Annals of Otolaryngology, Rhinology and Laryngology*, **96**: 519–524.
- Freezer, N. J., Beasley, S. W., Robertson, C. F. (1990) Tracheostomy. *Archives of Disease in Childhood*, **65**: 123–126.
- Frei, F. J., Meier, P. Y., Lang, F. J., Fasel, J. H. (1990) Cricothyrotomy using the Quicktrach coniotomy instrument set. *Anasthesivther-Notfallmed*, **25 Supplement 1**: 44–49.
- Holst, M., Hertegard, S., Persson, A. (1990) Vocal function following cricothyroidotomy: a prospective study. *Laryngoscope*, **100**: 749–755.
- Kuriloff, D. B., Setzen, M., Portnoy, W., Gadaleta, D. (1989) Laryngotracheal injury following cricothyroidotomy. *Laryngoscope*, **99**: 125–130.
- Milner, S. M., Bennett, J. D. C. (1991) Emergency cricothyrotomy. *Journal of Laryngology and Otology*, **105**: 883–885.
- Waldron, J., Padgham, N. D., Hurley, S. E. (1990) Complications of emergency and elective tracheostomy: a retrospective study of 150 consecutive cases. *Annals of the Royal College of Surgeons of England*, **72**: 218–220.

Reply:

Dear Sir,

We are most grateful to Major Deans for sharing his disquiet over the problems of cricothyrotomy.

The Casualty Treatment Regimes for the British Army stipulate that under certain circumstances this is the pre-

ferred management of potential and/or life-threatening upper airways obstructions, one of the commoner causes of which in modern warfare is inhalational injury.

We would agree that convincing evidence from field experience sufficient to settle the issues raised is not available, but an attempt should be made to collect such data when the opportunity next arises.

Yours faithfully,

Major J. D. C. Bennett, BSc., F.R.C.S., D.C.H., R.A.M.C.,
Senior Specialist in Otolaryngology,
Queen Elizabeth Military Hospital,
Stadium Road,
Woolwich SE18 4QH.

Atrophic Rhinitis

Dear Sir,

I enjoyed Mr Kameswaran's article 'Fibreoptic Endoscopy in Atrophic Rhinitis' (*JLO*, December 1991). He has made some interesting and useful points. Unfortunately there is yet another reference to the antediluvian use of 25 per cent glucose in glycerine in the management of atrophic rhinitis. Having had extensive experience in the management of atrophic rhinitis in leprosy patients I concluded '... 25 per cent glucose in glycerine, contrary to what is generally accepted, resulted in ... the colonization of the patient's nasal cavities by a dry, white fungal growth' (Barton, 1973). I was unable to culture and identify this growth as there was no microbiology service in the hospital where I worked.

In the light of limited funding and facilities, I formulated an ointment composed of:

Vaseline	1 kg
Glycerine	200 g
Vioform	300 g
Crystal violet	5 g

(The quantities can obviously be reduced proportionately for individual prescriptions). After decrusting the nasal cavities, application of this ointment at a thrice weekly 'Nose Clinic' gave excellent results.

Yours faithfully,

R. P. E. Barton, F.R.C.S.,
Consultant ENT/Head and Neck Surgeon,
The Leicester Royal Infirmary,
Leicester LE1 5WW

References

- Barton, R. P. E. (1973) *Leprosy Review*, **44**: 186–191.

Reply:

Dear Sir,

I would like to thank Mr Barton for his valuable suggestions. While it is true that we used 25 per cent glucose in glycerine in all our patients, it was for the express purpose of reducing the crusting in the nasal cavities prior to surgery and not with the idea of curing the condition. Used in conjunction with alkaline nasal douche solutions for a few weeks prior to surgery, there is an appreciable reduction in the crusting. I certainly agree with Mr Barton, that glucose in glycerine solution is not very effective when used as the only therapeutic option in atrophic rhinitis. As to the secondary colonization of the nose after application of the agent, which Mr Barton alludes to, we have not had occa-