thus dependent upon both the assessment and practice of the attending anaesthetist/neurosurgeon team. The care of all spine-injured patients with good neurological function cared for in our institutions during the relevant time period was reviewed.

We agree that access to the patient's subjective and objective neurological response to the intubation manoeuvres may provide useful clinical information. Presumably, clinicians who cite this as an advantage to awake intubation would also insist that the patient remain awake after tracheal intubation until properly positioned (including and especially if the patient is to be operated upon in the prone position for posterior stabilization). Failure to do so makes insistence on awake intubation alone illogical.

Dr. Drummond makes reference to the power level in our review which was well discussed in our paper. The outcomes in our review were compared with those of others. The incidence of untoward outcomes was very low and comparable with other studies including those assessing elective spinal surgery in nontrauma patients. Clearly, based on current outcome reports, very large numbers of patients would have to be reviewed to discover small, albeit important, differences in outcome, if they exist.

Finally, we do not subscribe nor do we seek to promulgate the notion that it is appropriate to anaesthetize "all comers" indiscriminately before performing laryngoscopy and tracheal intubation. We reported that patients who undergo tracheal intubation after induction of general anaesthesia do not appear to have an increased incidence of new neurological deficit when compared with patients whose tracheas are intubated while awake. Thus, we concluded that oral laryngoscopy and tracheal intubation after induction of general anaesthesia and muscle paralysis remains a prudent and safe option in cervical spineinjured patients. We do advocate careful assessment of the patient's injuries and determination, with the neurosurgical consultant, of the degree of spinal instability. Appropriate instruments for tracheal intubation can then be selected as well as a technique that will appropriately maintain spinal alignment.

In addition, we reject the sentiment that clinicians who choose intubation after anaesthesia do so because they do not possess skills to perform awake intubation.

Edward T. Crosby MD FRCPC Valerie S. Suderman MD Anne C.P. Lui MD FRCPC Department of Anaesthesia University of Ottawa Ottawa

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## Uncommon laryngeal mask obstruction

To the Editor:

Broderick et al.<sup>1</sup> and Payne<sup>2</sup> have previously reported a 10% incidence of partial airways obstruction in spontaneously breathing patients using the laryngeal mask. We have experienced a specific cause for this problem in a paralysed patient.

A Brain laryngeal mask was used as part of an elective cholecystectomy in an ASA III patient. A size #4 laryngeal mask was inserted easily after complete relaxation and IPPV was commenced immediately using a Servo 900D (Siemens). In spite of adequate chest expansion, normal auscultation, end-tidal CO2 (Datex) and oxygen saturation (Nellcor), the airway pressure was noted to be 2.5 kPa, and an air leak occurred around the mask. Fibreoptic laryngoscopy (Pentax) was performed through the laryngeal mask. This confirmed partial airway obstruction by upward displacement and infolding over the cords of large aryepiglottic folds. The laryngeal mask was removed and an oral endotracheal tube passed. Direct laryngoscopy showed a normal glottic aperture with large pediculated arytenoids back in their normal position. Anaesthesia then continued without further complication.

When obstruction occurs with the laryngeal mask, most are caused by downfolding of the epiglottis  $(n = 10)^1$ n=3, 2). Although frequent, downfolding of the epiglottis generally does not cause airway obstruction.<sup>3</sup> Some are due to forward displacement of the posterior circoid area and infolding of large aryepiglottic folds  $(n = 2, ^2)$ . We have reported the latter in a paralysed patient, and believe that displacement of prominent aryepiglottic folds was caused by inflation of the laryngeal mask cuff as suggested in the radiological study of Nandi et al.3 and relaxation of the laryngeal musculature may have contributed. The use of fibreoptic laryngoscopy via the lumen of the laryngeal mask is relatively simple and enabled us to confirm mechanical airway obstruction. We encourage familiarisation with this technique for the diagnosis of airway difficulty with the laryngeal mask as previously recommended.3

M. Dubreuil\*

G. Janvier\*

G. Dugrais\*

M.C. Berthoud FC Anaes†

\*Département d'Anesthésie-Réanimation I (Pr Erny) Hôpital Pellegrin-Tripode 5ème étage, 33076 - BORDEAUX CEDEX †Department of Anaesthesia Sheffield University Medical School Beech Hill Road Sheffield, England

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# The laryngeal mask airway as an aid to blind orotracheal intubation

#### To the Editor:

Couture et al.<sup>1</sup> reported a useful technique to circumvent an unpredictably difficult intubation. We encountered a similar case but used a laryngeal mask airway (LMA) to guide blind orotracheal intubation, as suggested by Heath and Allagin.<sup>2</sup> A 39-yr-old woman was admitted to hospital for elective coronary revascularization. She suffered from rheumatoid arthritis with neck pain and stiffness. Inspection of her oropharynx showed part of the uvula (Mallampati class 2), but she could not fully extend her neck.

On the morning of surgery, after fentanyl 200  $\mu$ g, vecuronium 0.5 mg, and preoxygenation, we determined that the lungs could be ventilated easily by mask. Subsequently, fentanyl 15  $\mu$ g·kg<sup>-1</sup> and vecuronium 0.08 mg·kg<sup>-1</sup> were administered over two minutes. Since tracheal intubation was not achieved with a Macintosh or Miller laryngoscope, or with a fibreoptic bronchoscope, we decided to make a single attempt at blind intubation guided by prior placement of an LMA. A #4 LMA was positioned over the laryngeal inlet and an effective seal was obtained with the cuff inflated. Positive pressure ventilation (up to 20 cm H<sub>2</sub>O) was applied without leakage. The largest possible endotracheal tube (6 mm ID) was inserted through the LMA and tracheal intubation was accomplished easily.

In 1985 Brain<sup>3</sup> described a case where the laryngeal mask facilitated blind orotracheal intubation. He stated that achieving an effective seal around the larynx was easier when the larynx was anterior. However, because of its size and tendency to fold or ensnare the epiglottis, the LMA should be removed soon after intubation is accomplished.<sup>4</sup>

To prevent accidental extubation during removal of the LMA, any of the standard methods of tube exchange can be employed. A standard 55–60 cm paediatric fibreoptic bronchoscope will provide a guide to withdraw the LMA and re-intubate the trachea if necessary. Alternatively, one of the newer jet stylets can be employed, or a medium Sheridan tube exchanger will fit through a 6 mm ID tracheal tube and when connected to a jet injector via a 16-G intravenous catheter, that tube exchanger should provide adequate tidal volumes. Before removing the jet stylet, the anaesthetist should confirm successful re-intubation.

R.G. Loken MD FRCPC C.L. Moir MD FRCPC Department of Anesthesia Foothills Hospital, Calgary

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### Needle stick injuries

#### To the Editor:

I am concerned about the lack of protection for individuals who sustain needle stick and other similar injuries. Even high-risk groups are not screened for AIDS and while it is permissible to take a blood sample for hepatitis screening, without patient consent after a needle stick, it is not permissible, without first obtaining patient consent, to perform an AIDS test. Thus, the investigation of such injuries depends on the cooperation of the patient. The patient can withhold consent for AIDS testing. I believe that this needs to be changed so that AIDS testing can be dealt with in the same way as that for hepatitis.

The risk of acquiring AIDS from a needle stick has been