devices more tempting to investigate and advocate than older, already well-explored instruments. Slavish acceptance of novelty can lead to unfortunate 'fads', later recognized to resemble the emperor who is, if not naked, at least ill-clad.

A.F. David Cole MD
Joseph S. Mallon MD FRCPC
Toronto, Ontario

REFERENCES

1 *Crosby ET, Cooper RM, Douglas MJ, et al.* The unanticipated difficult airway with recommendations for management. Can J Anaesth 1998; 45: 757–76.
2 *Morris IR.* Fibreoptic intubation. Can J Anaesth 1994; 41: 996–1008.
3 *Cole AFD, Mallon JS, Rolbin SH, Ananthanarayan C.* Fiberoptic intubation using anesthetized, paralyzed, apneic patients. Results of a resident training program. Anesthesiology 1996; 84: 1101–6.
4 *Schaeffer H-G, Marsch SCU.* Comparison of orthodox with fibreoptic orotracheal intubation under total i.v. anaesthesia. Br J Anaesth 1991; 66: 608–10.
5 *Smith JE, Mackenzie AA, Scott-Knight VCE.* Comparison of two methods of fibrescope-guided tracheal intubation. Br J Anaesth 1991; 66: 546–50.
6 *Finfer SR, Mackenzie SI, Saddler JM, Watkins TGL.* Cardiovascular responses to tracheal intubation: a comparison of direct laryngoscopy and fibreoptic intubation. Anaesth Intensive Care 1989; 17: 44–8.
7 *Roth AG, Wheeler M, Stevenson GW, Hall SC.* Comparison of a rigid laryngoscope with the ultrathin fibreoptic laryngoscope for tracheal intubation in infants. Can J Anaesth 1994; 41: 1069–73.
8 *Benumof JL.* Management of the difficult adult airway. With special emphasis on awake tracheal intubation. Anesthesiology 1991; 75: 1087–110.
9 *Marsch SCU, Aeschbach A, Achaefer H-G.* Teaching awake fiberoptic intubation in patients without specific medical indication. Anesthesiology 1995; 83: A1014.

REPLY:

The intent of our project was to review the literature since the ASA Guidelines and to determine if previous recommendations should be modified, and to offer guidance regarding newer airway devices.

Cole and Mallon [1] studied eight residents who, after 1000 tracheal intubations (quarter with the flexible fibreoptic endoscope [FFE]), were assessed during tracheal intubation in a further elective 131 patients, 59 with the direct laryngoscope, 72 with the FFE. In the case of FFE-facilitated tracheal intubations, a catheter was placed in the oropharynx before the procedure began for continuous oxygen insufflation. It took nearly twice as long to complete fibreoptic intubation; only 73% were performed within one minute of apnea. Would this be reproducible in the unanticipated failed intubation, without dedicated assistance?

We acknowledged the value of the FFE in the management of the unanticipated difficult intubation. We suggested that its use was more difficult in the setting of a paralysed, apneic patient, particularly when the airway might be soiled by blood or secretions. Finucane also took exception to our reservations: "I tend to differ with them on this issue. Fibreoptic assisted intubation can be extremely useful even in anesthetized patients, but .... it requires practice, experience and an assistant to maintain the airway, [2] (my italics) We cited evidence that tracheal intubation can be achieved rapidly and safely, without the need for an assistant, with the alternate devices reviewed.

With regard to newer devices, we did not mention the intubating LMA because, at the time, there was no evidence demonstrating its effectiveness. However, the other devices reviewed, with the exception of the McCoy laryngoscope blade, have been available for more than a decade.

Edward Crosby MD
Ottawa, Ontario

REFERENCES

1 *Cole AFD, Mallon JS, Rolbin SH, Ananthanarayan C.* Fiberoptic intubation using anesthetized, paralyzed, apneic patients. Results of a resident training program. Anesthesiology 1996; 84: 1101–6.
2 *Finucane B.* The difficult airway - a Canadian perspective (Editorial). Can J Anaesth 1998; 45: 713–8.

The Charlottetown Click

To the Editor:

We read with concern the letter by Dubois and colleagues describing insertion of the LMA using a semi-inflated rotational technique, the so called "Charlottetown Twist" (Can J Anaesth 1998;45:823). The authors make the unsupported statement that this technique is less traumatic than the standard recommended technique, but we consider this to be incorrect. There is no doubt that placement of the LMA with the mask aperture bars facing in the cephalad direction can occasionally be advantageous in moving the cuff from the mouth into the pharynx. The disadvantage is that the cuff must then be rotated back through 180° for the device to function. The authors state that this rota-

tion is performed once the tip of the LMA cuff has entered the hypopharynx and is accompanied by a "distinctive pop felt by the introducing hand". Our concern is that immediately anterior to the hypopharynx are the arytenoid cartilages. We postulate that rotation of the bulky LMA cuff in such close proximity might cause arytenoid dislocation, a major complication commonly requiring surgical correction. We suggest that those who prefer the "Charlottetown Twist" follow-up their patients for speech problems, particularly if the "distinctive pop" is accompanied by a "catastrophic click".

J. Brimacombe FRCA MD
D. Gardiner MB BS
Cairns, Australia

REPLY:

Dr. Brimacombe did not contest our contention that our insertion technique may be less traumatic. He also agreed that it makes the insertion of the LMA easier on occasion. He condemned us on a motive that would condemn all blind methods of tracheal intubation such as the use of the light wand or the fibreoptic bronchoscope. It is our belief that the soft, blunt, inflated distal cuff of the LMA probably causes less trauma than direct laryngoscopy on laryngeal structures. We did not come across any cases of arytenoid dislocation in our extensive use of the LMA.

Jean-Yves Dubois MD FRCP
Charlottetown, PEI

Does smoking really increase the requirements for rocuronium?

To the Editor:

We read with interest the recent article by Rautoma and Svartling[1] but we would like to add some comments. On the basis of the data presented, the headline stating "Smoking increases the requirement for rocuronium" seems not to be justified because the changes observed failed to reach statistical signifiance ($P = 0.0504$). We started a similar study four months ago, using target controlled infusions of rocuronium to determine the dose requirements in smokers and non-smokers and expect to be completed by the end of 1998. A preliminary power analysis based on the data of a study from Latorre *et al.*[2] revealed a minimum of at least 37 patients per group to find a statistical significant effect of rocuronium in smokers. We, therefore, speculate that the number of patients in the study of Rautoma and Svartling was too small. In addition, we would like to point out that rocuronium, in contrast to vecuronium, is eliminated through the liver without undergoing metabolism.[3] Therefore, the P-450 mixed oxidase pathway should not be of any influence in the elimination of rocuronium .

F.K. Pühringer MD PhD
A. Benzer MD PhD
P. Keller CM
T.J. Luger MD PhD
Austria, Europe

REFERENCES

1 *Rautoma P, Svartling N.* Smoking increases the requirement for rocuronium. Can J Anaesth 1998; 45: 651–4.
2 *Latorre F, de Almeida MCS, Stanek A, Kleemann PP.* The interaction between rocuronium and smoking. The effect of smoking on neuromuscular transmission after rocuronium. (German) Anaesthesist 1997; 46: 493–5.
3 *Wierda JMKH, Kleef UW, Lambalk LM, Kloppenburg WD, Agoston S.* The pharmacodynamics and pharmacokinetics of Org 9426, a new non-depolarizing neuromuscular blocking agent, in patients anaesthetized with nitrous oxide, halothane and fentanyl. Can J Anaesth 1991; 38: 430–5.

Anesthesia in Poland syndrome

To the Editor:

We read with interest the case report "Anaesthesia in Poland syndrome."[1] Since the authors focused on potential respiratory problems associated with anesthesia in children with musculo-skeletal disease of the thoracic cage, we would like to stress another major potential risk factor. Children with musculo-skeletal diseases show an exceptional risk of developing succinylcholine-related complications including cardiac arrest. The addition of halothane to maintain anesthesia potentiates the risk for malignant hyperthermia.

Sethuraman *et al.* described Moebius syndrome as an extreme expression of Poland anomaly; the association between both syndromes has been emphasized in several reports.[2,3] While succinylcholine is contraindicated in degenerative diseases of cranial nerve motor nuclei such as Moebius syndrome,[4] the association between this disease and Poland syndrome should raise concern about the use of depolarizing muscle relaxants under these circumstances. Reports of trismus in neonates as part of developmental