

inhalational induction technique.⁵ As the history was of dysphagia, without regurgitation we considered the risk of aspiration to be small.

No premedication was prescribed. A co-axial Bain breathing system with two 2-litre reservoir bags in series at the machine end was primed with 8% sevoflurane 8% in 50% O₂:N₂O. He exhaled to residual volume, breathed in deeply and held his breath. Cricoid pressure was applied with the loss of consciousness and anaesthesia deepened with sevoflurane 8%. Following a brief period of apnoea, manual ventilation was performed until tracheal intubation at four minutes. Ventilation was continued with sevoflurane 2%. The procedure was uneventful.

He was extubated in the left lateral position, after the resumption of spontaneous respiration, waking approximately 18 min after induction. Four hours later he was clinically fully recovered. Sevoflurane may have a place in the induction and maintenance of anaesthesia in patients with myotonic dystrophy.

P.J. Shirley FRCA
H. McFarlane FFARCSI
Aberdeen Royal Infirmary
Aberdeen, Scotland

REFERENCES

- 1 Aldridge LM. Anaesthetic problems in myotonic dystrophy. A case report and review of the Aberdeen experience comprising 48 general anaesthetics in a further 16 patients. *Br J Anaesth* 1985; 57: 1119-30.
- 2 Russell SH, Hirsch NP. Anaesthesia and myotonia. *Br J Anaesth* 1994; 72: 210-6.
- 3 Mason RA. Dystrophia myotonica (and other myotonic syndromes). In: *Anaesthesia Databook. A Clinical Compendium*, 2nd ed. London: Churchill-Livingstone, 131-6.
- 4 Kinney MAO, Harrison BA. Propofol-induced myotonia in myotonic dystrophy (Letter). *Anesth Analg* 1996; 83: 665-6.
- 5 Smith I, Nathanson M, White PF. Sevoflurane - a long-awaited volatile anaesthetic. *Br J Anaesth* 1996; 76: 435-45.

Falsely reassuring readings with conventional pulse oximeters

To the Editor:

McCrorry *et al.* report a case of falsely elevated pulse oximetry readings in a neonate without apparent explanation.¹ This case emphasizes the limitations of traditional pulse oximetry. The authors provide references to

several potential causes of such an anomaly.² The list of potential causes can be expanded to include other dyshaemoglobinaemias (e.g. methaemoglobinaemia) and congenital haemoglobinopathies (e.g. Haemoglobin Koln and Haemoglobin Hammersmith).³ Were these possibilities considered in the differential diagnosis? I commend the authors on reporting this case as it is important to investigate cases such as the one described to ensure that we understand the limitations of the tools we rely on to indicate normal physiology.

Dr. Scott A. Lang
Calgary, Alberta

REFERENCES

- 1 McCrorry C, Ryan M, Doherty P. Falsely reassuring pulse oximetry in the presence of severe hypoxia (Letter). *Can J Anaesth* 1997; 44: 1323-4.
- 2 Poets CF, Southall DP. Non-invasive monitoring of oxygenation in infants and children: practical considerations and areas of concern. *Pediatrics* 1994; 93: 737-46.
- 3 Lang SA, Chang PC, Laxdal VA, Huisman THJ. Haemoglobin Hammersmith precludes monitoring with conventional pulse oximetry. *Can J Anaesth* 1994; 41: 965-8.

REPLY:

Thank you for your interesting comments. We were not able to measure the congenital haemoglobinopathies Hammersmith or Koln at the time. Although in this case the neonate was beyond recovery and, therefore, oximetry did not effect outcome, in a less severely ill patient reliance on oximetry could have lead to suboptimal therapy and avoidable patient deterioration. This case report highlights the inherent dangers of placing too much reliance on pulse oximetry or any other piece of monitoring equipment. It is crucial that doctors understand the limitations of the monitoring equipment they use.

C. McCrorry, P. Doherty
Dublin, Ireland.

Complications of PA catheter

To the Editor:

A recent publication demonstrating increased mortality in patients receiving pulmonary artery catheters (PA)¹ questions whether the use of pulmonary artery catheters (PAC) does more harm than good. Based on this report, we performed a retrospective analysis of 102 PAC insertions to examine our complication rate.² Complications were observed in 31 patients

(23% incidence): fluid leak into the protective sheath (2); catheter clotting (2); coiling in the ventricle (1); arrhythmia (2); and inability to obtain a pulmonary artery occlusion waveform (PAOP) (24). There were no pneumothoraces or deaths. The inability to obtain a PAOP waveform is disconcerting since an inability to measure or interpret a PAOP trace might lead to errors in patient management. In the experience of the senior author, inability to obtain a PAOP trace is rare and the high rate we detected suggests a lack of experience or ignorance in the interpretation of haemodynamic data by physicians at all levels and nursing personnel.³ In tertiary care teaching intensive care units, the PAC is usually inserted by the ICU resident under supervision. If inaccurate data are utilized in decision making, the results may lead to inaccurate, inadequate, or erroneous therapy with potentially disastrous consequences.¹ We wish to make you aware of these results since we suspect our experience is not unique and suggest that other practitioners may wish to examine their own experience.

Saud Al-Shanafey MD
Richard I. Hall MD FRCPC FCCP

REFERENCES

- 1 Connors AF Jr, Speroff T, Dawson NV, et al. The effectiveness of right heart catheterization in the initial care of critically ill patients. *JAMA* 1996; 276: 889-97.
- 2 Kelso LA. Complications associated with pulmonary artery catheterization. *New Horiz* 1997; 5: 259-63.
- 3 Iberti TJ, Fischer EP, Leibowitz AB, Panacek EA, Silverstein JH, Albertson TE. A multicenter study of physician's knowledge of the pulmonary artery catheter. *JAMA* 1990; 264: 2928-32.

"The Charlottetown LMA Twist"

To the Editor:

We have never been satisfied with the classical insertion technique for the LMA. We have developed an easier, faster and less traumatic approach. Since the LMA represents the ultimate oral airway, it might be inserted in the same way.

Using our technique the LMA is held so that the long axis is perpendicular to the posterior pharyngeal wall of a supine patient with the breathing grille opening caudally. The body of the LMA now has a slight cephalad curve. The LMA is now rotated 180° so that the grille opens in a cephalad direction. With the patient anaesthetized and the LMA lubricated and minimally inflated, the head is extended backward with the left hand on the forehead to open the mouth.

Holding the stem with the right hand, the LMA is introduced into the mouth and pushed into the hypopharynx. This is easy as the natural deflection is now caudal and the inflated cuff makes a softer, blunter and easier presentation to the airway. The LMA is felt as it enters the hypopharynx. Whilst firmly pushing firmly on the stem of the LMA, it is rotated 180°, twisting the breathing grille toward the glottis. A distinct pop is felt by the introducing hand. The rotation is initiated as soon as the distal part of the LMA is seen or felt to be engaged in the hypopharynx and while there is still a forward motion of the LMA.

We present this as the "Charlottetown Twist" technique of LMA insertion.

Jean-Yves Dubois MD FRCPC
Stephen Farmer MD FRCPC
Timothy Fitzpatrick MD FRCPC
Queen Elizabeth Hospital
Charlottetown, Prince Edward Island
Canada

Liquid crystal temperature indicators - a potentially serious problem in paediatric anaesthesia

To the Editor:

Liquid crystal temperature indicators (LTCI) placed on the forehead of children are often used to measure the child's temperature during induction of anaesthesia. We have observed that if a heating lamp is placed over the child's head, even at the prescribed distance of 28 inches (71 cm), the temperature values on the LTCI can increase quickly and alarmingly. The first time we observed this dramatic temperature rise we called for the malignant hyperpyrexia cart. Fortunately, we stopped short of treating a non-existing disease when we ascertained that both tympanic membrane and oesophageal temperature measurements showed the child's temperature to be normal. We bring this potential problem to your readership's attention.

Rebecca E. Claire MD
John G. Brock-Utne MD PhD
Stanford, California

Complications with the Combitube

To the Editor:

Vežina *et al.*¹ reported subcutaneous emphysema during use of the Combitube® (ETC) for cardiopulmonary