

who will check later. Testing in a hurry during an emergency situation could change the original problem without realizing it, so that the malfunction cannot be detected and proved afterwards.

X. Souvatzis, H. Askitopoulou  
Department of Anaesthesiology  
University Hospital of Heraklion  
Crete, Greece

## References

1. European standard EN 740: Anaesthetic workstations and their modules – Particular requirements. Comité Européen de Normalisation, rue de Stassart, 36, B-1050 Bruxelles. 1998.
2. Siemens. *KION/KION-i Anaesthesia Workstation. Operating Manual*. Version 7.0/10.0, 2003, Solna Sweden.
3. Association of Anaesthetists of Great Britain and Ireland. Checking Anaesthetic Equipment. 3 2004.
4. Empfehlung der Kommission für Normung und technische Sicherheit der Deutschen Gesellschaft für Anästhesiologie und Intensivmedizin. Funktionsprüfung des Narkosegerätes bei geplantem Betriebsbeginn, bei Patientenwechsel im laufenden Betrieb und im Notfall. Technische Maßnahmen zur Gewährleistung der Patientensicherheit. *Anästhesiol Intensivmedizin* 2006; 47: 57–62.
5. Fasting S, Gisvold SE. Equipment problems during anaesthesia – are they a quality problem? *Br J Anaes* 2002; 89(6): 825–831.
6. Arbous MS, Meursing AEE, van Kleef JW *et al*. Impact of anesthesia management characteristics on severe morbidity and mortality. *Anesthesiology* 2005; 102: 257–268.
7. Lehmann DW, Engelbrecht K, Radke J. Ein Beispiel für die grundsätzliche Problematik grenzwertig beschädigter Bauteile in Anästhesie und Intensivmedizin. (Inspiratory valve malfunction in the Draeger respiratory circuit: an example of risks due to borderline damage to parts of ventilatory equipment). *Anaesthesist* 1997; 46: 801–804.
8. Harper NJN. A new APL valve hazard. *Anaesthesia* 2001; 56: 1119–1120.

## ProSeal LMA: a potentially dangerous modification

doi: 10.1017/S0265021507000944

### EDITOR:

We would like to report a potential critical incident resulting from an unauthorized unconventional modification of anaesthetic equipment. The ProSeal laryngeal mask airway (LMA) is a modification of the classic LMA [1], designed to enable separate respiratory and gastrointestinal tracts. A gastric drain tube is incorporated, which can vent gas leakage during ventilation, thus preventing gastric insufflation. It also enables aspiration of gastric contents intraoperatively by insertion of an oro-gastric tube and has been used to detect malposition of the mask.

A ProSeal LMA was used to secure an airway after induction of general anaesthesia. After cuff inflation, the anaesthetic assistant picked up the anaesthetic breathing circuit to connect it to the ProSeal LMA, and encountered two possible connector choices at the distal end of the LMA. We then noticed that the drain tube of the LMA also had a 7 mm endotracheal tube connector securely attached to its distal end (Fig. 1). The breathing circuit was

connected to the appropriate airway connector, avoiding the unintended oesophageal ventilation and insufflation. The unnecessary connector was removed from the drain tube to avoid future incident.

Modification of anaesthetic equipment is well known and in the past has played an important part



**Figure 1.** ProSeal LMA with two airway connectors, one at the distal end of reinforced LMA tube and the other unexpected connector attached to the drain tube. LMA: laryngeal mask airway.

Correspondence to: Sujesh Bansal, Anaesthetic Department, Royal Preston Hospital, Sharoe Green Lane, Preston PR2 9HT, UK. E-mail: Sujesh.Bansal@gmail.com; Tel: +44 1772522555; Fax: +44 1772522992

Accepted for publication 16 May 2007 EJA 4368  
First published online 20 June 2007

in the development of new equipment. Many modifications are widely accepted, used and even published in the journals [2]. The modification of the ProSeal LMA by connecting an endotracheal tube connector to the drain tube has been reported recently, when the lightwand was used in conjunction, to facilitate the insertion of the ProSeal LMA, as the endotracheal tube connector seats perfectly in the connector lock at the hilt of the lightwand. The author of this article stressed that the endotracheal tube connector must be removed immediately after the procedure to prevent inadvertent connection of the anaesthetic circuit to the drain tube [3].

This ProSeal LMA is an essential item on our difficult airway trolley, as recommended in the Difficult Airway Society guidelines for unanticipated difficult intubation during rapid sequence induction in non-obstetric patient. In our case, the endotracheal tube connector was found to be firmly attached to the drain tube. The reason for this could not be determined: Either the ProSeal LMA was modified to be used with lightwand or an endotracheal tube connector was attached in error before

sending for sterilization. All staff have been made aware of this, to prevent any future incident. This incident highlights the importance of a thorough check of all the equipment before sending for sterilization as well as before use in the theatre. Airway devices should be checked not only for its patency but also for any inadvertent modifications.

S. Bansal, M. J. Jones  
Anaesthetic Department  
Royal Preston Hospital  
Preston, UK

## References

1. Cook TM, Lee G, Nolan JP. The ProSeal laryngeal mask airway: a review of the literature. *Can J Anaesth* 2005; 52: 739–760.
2. Turkstra TP, Pellerin HG. Modification of the LMA-Unique to facilitate endotracheal intubation. *Can J Anaesth* 2006; 53: 1266–1267.
3. Mutch WA. Facilitated insertion of the ProSeal laryngeal mask airway using a lightwand. *Can J Anaesth* 2006; 53: 635–636.

## Spinal anaesthesia for emergency Caesarean section in an achondroplastic patient

doi: 10.1017/S0265021507000981

### EDITOR:

Achondroplastic is the most common non-lethal skeletal dysplasia [1]. These patients have a reduced fertility rate and full-term pregnancies, almost invariably leading to Caesarean section due to cephalopelvic disproportion [1–3]. General endotracheal anaesthesia has traditionally been considered the technique of choice in achondroplastic [4]. However, controversy exists as to the ideal anaesthetic for a patient with achondroplastic for urgent Caesarean section. Difficulties with airway management, regional anaesthesia, altered anatomy and the well-documented anaesthetic risks of acid aspiration encountered during the third trimester of pregnancy can create a significant challenge to

the anaesthesiologist whether regional or general anaesthesia is chosen [2–4].

A 37-yr-old female, gravida 1, para 0 patient with achondroplastic presented at 28 weeks gestation with amnionitis for emergency Caesarean section. The patient's past medical history was significant for achondroplastic, allergy to ibuprofen, ethmoidal sinusitis, L<sub>2</sub>–L<sub>3</sub> prolapsed intervertebral disc, thoracolumbar spinal stenosis and kyphoscoliosis. Past surgical history included uneventful tonsillectomy and bilateral limb-lengthening orthopaedic surgery of the tibia under general anaesthesia 15 years back. On physical examination, she was 1.27 m tall and weighted 51 kg, her blood pressure (BP) was 142/84 mmHg, heart rate 97 beats min<sup>-1</sup> and respiratory rate 18 breaths min<sup>-1</sup>. She had a large head with prominent frontal bones, a short upturned nose and disproportionately short limbs. Her mouth opening was limited to three finger breaths with a Mallampati Class III airway and the tongue was large with a limited neck extension. She had received antibiotics for 5 days. Because of her

Correspondence to: Miguel Angel Palomero Rodríguez, Servicio de Anestesiología y Reanimación, Hospital Universitario de Salamanca, Paseo de San Vicente, 58-182, Salamanca 37007, Spain. E-mail: mapalomero@hotmail.com; Tel: +34 92 329 353; Fax: +34 92 329 1131

Accepted for publication 18 May 2007 EJA 4507  
First published online 21 June 2007