Endobronchial intubation technique and airway morbidity

Editor—We read the interesting article by Seo and colleagues about the study comparing two techniques of double-lumen endobronchial intubation. We have a few queries.

First, the authors have not mentioned if any lubrication or softening technique was used to prepare the double-lumen tube (DLT) before placement to prevent airway morbidity.

Secondly, the authors have not mentioned whether there was any correlation between Cormack and Lehane’s grading and resistance to pass the DLT.

Thirdly, the authors discussed a better antero-posterior alignment at the level of vocal cords in the group 180 leading to decreased resistance to placement of DLT and subsequent less vocal cord morbidity, but what could be the possible reason for more sore throat in the group 90 in comparison with the group 180?

Declaration of interest

None declared.

P. Maheshwari*

P. Maheshwari

Oklahoma City, USA

*E-mail: praveen-maheshwari@ouhsc.edu


doi:10.1093/bja/aeu111

180° rotation of double-lumen endobronchial tube during intubation

Reply from the authors

Editor—We would like to thank Drs Maheshwari for their comments and interest in our article. First, in both groups, we did not use any known modalities to reduce airway complications during tracheal intubation. Therefore, we think that there were no problems during the conduct of our study. Secondly, in all 164 recruited patients, we analysed the correlation between Cormack and Lehane’s laryngoscopic grade and the resistance during advance of double-lumen endobronchial tubes (DLTs) through the glottis by using Fisher’s exact test, but no correlation was found ($P=0.878$). The resistance during advance of DLTs seems to be more associated with the difference in the size between the DLT and glottis rather than the laryngoscopic grade. However, a further and larger-scale study may be needed. Thirdly, sore throat can occur owing to various factors related with tracheal intubation. However, it is clear that the intensity of physical trauma during the DLT intubation is the major causative factor. The 180° rotating technique reduces resistance during advance of DLTs through the glottis as shown especially in nine patients in whom the 90° rotating technique had not been successful.

Declaration of interest

None declared.

J.-H. Bahk*

J.-H. Seo

Seoul, Republic of Korea

*E-mail: bahkjh@snu.ac.kr


doi:10.1093/bja/aeu114

In pursuit of interscalene safety

Editor—I read with interest the case report by Mostafa and Mejdad documenting quadriplegia after shoulder surgery, and laud the authors for unveiling this complication.

Benumof published a four case series highlighting quadriplegia as a complication of interscalene block (ISB) performed under general anaesthesia. On reflection, he opined that performing an ISB under general anaesthesia constituted a relative contraindication. Furthermore, he recommended that block needles should not exceed 3.75 cm in length, that they be directed caudally, and notably, that landmarks are poor in obese patients. At variance, Bogdanov and Loveland pre- sented a retrospective analysis of 548 cases of ISB/general anaesthesia that failed to reveal a single case with permanent or long-lasting neurological complications.

Sardesai and colleagues performed a magnetic resonance imaging study in 10 volunteers examining needle angulations that facilitate passage into the neuraxis. They found that at the C6 level, a caudal angulation of >30° ensured passage of the needle below the intervertebral foramen. In a similar fashion, Russon and colleagues using a cadaver model concluded that marked caudal angulation (>50° to transverse plane) minimized the chance of needle entry into the spinal canal.

Quadriparesis after ISB may result from delayed epidural or intradural extension of local anaesthetic (LA) after injection into the dural cuff. Orebough and colleagues injected dye into the brachial plexus roots of cadavers under ultrasonic guidance. They were testing the hypothesis that LA injected into the proximal portion of a plexus root could spread to the cord. An earlier study by Selander and Sjostrand documented intracordal spread in association with high injectate pressures (300–750 mm Hg). In contrast, Orebough witnessed distal...
intrafascicular spread, but no evidence of infiltration into the spinal cord. Moreover, in a comparative retrospective analysis of 5436 peripheral nerve blocks steered either by surface landmarks or by ultrasound enhancement, Orebaugh and colleagues\(^8\) found significantly fewer adverse outcomes associated with the ultrasound-guided interventions.

Unfortunately, the description of current case report fails to note patient habitus, use of auxiliary equipment (nerve stimulation or ultrasound), and clinical interpretation of the post-positioning haemodynamic instability (such as Bezold–Jarisch reflex). The combination of an increased neck girth, general anaesthesia, and absent ultrasound-guidance increases the likelihood of needle misadventure. Real-time ultrasound identification of the needle tip and pattern of LA spread should reduce the incidence of this catastrophic complication.

**Declaration of interest**

None declared.

H. D. Palte
Miami, USA
E-mail: hpalte@med.miami.edu


2 Benumof JL. Permanent loss of cervical spinal cord function associated with interscalene block performed under general anesthesia. *Anesthesiology* 2000; 93: 1541–4


**Journal club response**

Editor—We read the recent article on the use of propofol by emergency department (ED) physicians, written by Drs Lloyd, Newstead, and colleagues,\(^1\) with great interest and also had the article presented in our departmental journal club meeting. This study, as correctly mentioned by the authors, adds to the already existing data on procedural sedation in the ED. We would however like to raise certain points which were highlighted in our meeting and we felt that they should be communicated back to the authors. We could not see any clear sedation endpoints which were set to guide the doctors using propofol for sedation and were not sure if different doses or endpoints were being used for different procedures being carried out in the ED. We felt that this was important since some procedures were potentially more stimulating than others and hence the dose required for those would be different. The online Supplementary material suggests that the procedure should be carried out when the patient is ‘unconscious, i.e. not responding to command’ which surely constitutes an anaesthetic rather than sedation. To add weight to this, the online supplement refers to a propofol anaesthetic, not propofol sedation. It seems that the vast majority of the patients were probably being anaesthetized rather than sedated and this may well explain why the incidence of hypoxia in this study was similar to those reported for non-cardiac anaesthesia. In addition, seven of the patients received concurrent i.v. morphine. Despite this, there was no reduction in the dose of propofol given. In the discussion regarding the 11 sentinel cases, it is stated that two elderly patients were given above the recommended amounts of propofol. The definition of elderly was not described but assuming this was >75 yr, all six elderly patients were given an initial bolus above 0.5 mg kg\(^{-1}\). In addition, all patients who received incremental top ups received them above the 0.25 mg kg\(^{-1}\) guideline dose. In total, nine cases received doses above those recommended in the guideline. Finally, Cases 3 and 11 clearly did meet the criteria for a sentinel event before sedation as they were patients who were very unstable; surely having an anaesthetist present to sedate these patients would have been essential in the safe management of these patients.

**Declaration of interest**

None declared.

C. N. Wade
Staffordshire, UK
E-mail: charlotte.wade@uhns.nhs.uk


doi:10.1093/bja/aeu117

**Procedural sedation: it is not what you do, it is how you do it**

Editor—We read with interest the recent report on the use of propofol for procedural sedation in the emergency department (ED) by Newstead and colleagues.\(^1\) We applaud the authors for their use of a standardized reporting tool and the transparent discussion of the encountered adverse events and would like