

is insufficient to conclude that epidural analgesia with bupivacaine 0.075% reduced uterine blood flow through enhancing the resistance of uterine artery. To further elucidate the impact on fetal circulation, we recently measured the Doppler velocimetry of umbilical arteries throughout different periods of labour analgesia. Our preliminary data confirm that continuous epidural analgesia increased uterine blood resistance, but did not alter umbilical blood flow throughout the labour course regardless of uterine contraction or relaxation (in preparation). The lack of influence on the fetal circulation substantiates Reynolds' assertion that epidural analgesia is associated with better neonatal outcome than no analgesia.³

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Lidocaine intranasal spray for treatment of trigeminal neuralgia

Editor—Kanai and colleagues¹ are to be congratulated on their study of the efficacy of lidocaine 8% intranasal spray for the treatment of paroxysmal second division trigeminal neuralgia. They showed that 0.2 ml of lidocaine 8% applied to the sphenopalatine ganglion, which lies just posterior to the middle turbinate, provides effective pain relief for approximately 4 h. They observed that 15 out of 25 subjects felt burning or stinging in the treated nostril and commented that this made the study difficult to blind.

Lee and colleagues² recently described a means of inserting a laryngeal mask airway using topical anaesthesia with lidocaine 10% combined with a remifentanyl infusion. All the subjects experienced a sore throat afterwards. I experienced a very sore throat after topical anaesthesia with lidocaine 10% when participating in a fibre-optic intubation course. A fibre-optic intubation instructor I know believes the incidence of burning and stinging increases proportionately with lidocaine concentration and avoids very concentrated lidocaine solutions for this reason despite the lack of published data on the matter.

I appreciate that lidocaine 8% was chosen for this study to reduce the volume administered, as participants in other studies have reported an unpleasant taste and swallowing difficulties as a result of local anaesthetic applied to the nostril reaching the pharynx and larynx.^{3 4} However, it would have been useful if Kanai and colleagues had communicated the proportion of patients continuing to use the lidocaine 8% spray after the study ended, providing a good indication to the tolerability of the treatment and reassurance that it does not simply replace one pain with another.

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We greatly appreciate the comments by Dr Wheeler regarding our article on intranasal lidocaine 8% spray. As he described, 0.2 ml of lidocaine 8% frequently produces burning, stinging, or numbness of the treated nostril, resulting in unpleasantness for patients. In our department, the treatment is not the first-line therapy for trigeminal neuralgia. However, we often apply intranasal lidocaine spray to patients with refractory trigeminal neuralgia. Most patients prefer the intranasal spray to trigeminal nerve block with a needle because of prompt analgesia without severe pain attendant on procedure. Further work is required to assess the proper concentration and volume of intranasal lidocaine in order to provide a better effect and at the same time less unfavourable adverse effects in patients with refractory trigeminal neuralgia.

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Repositioning a displaced tracheostomy tube

Editor—We found Rajendram's case report on the repositioning of a displaced tracheostomy tube with Aintree intubation catheter (AIC) mounted on a fibre-optic bronchoscope (FOB)¹ to be particularly interesting, as we experienced a similar difficult situation, which did not run as smoothly as Rajendram's, although it was ultimately successful. We believe that comparison between the two patients would be useful in emphasizing the crucial aspects of management of similar situations.

A 19-yr-old, Afro-Caribbean male presented to the maxillofacial team with Ludwig's angina, an airway threatening condition caused by dental infection involving multiple tissue planes in the neck. He had emergency incision and drainage of the infection followed by tracheostomy. After inducing anaesthesia with sevoflurane, the surgical procedure was uneventful and a size 8 Shiley cuffed, fenestrated tracheostomy tube (Tyco Healthcare, Pleasanton, CA, USA) was inserted. This tube has a fenestrated outer tube and an interchangeable solid or fenestrated inner tube. The solid inner tube is used for the immediate perioperative period, and this is changed to the fenestrated inner tube as the airway becomes less at risk. The patient was initially very drowsy after reversal of the neuromuscular block, but then had violent bouts of coughing and developed massive surgical emphysema over his chest extending to the arms, neck, and face. The maxillofacial team was called back immediately. The patient was re-sedated whilst still self-ventilating with good tidal volumes. Because of the risk of increasing swelling and displacement of the tracheostomy tube, it was decided to replace the fenestrated tracheostomy tube with an adjustable flange reinforced size 8 tracheostomy tube (Mallinckrodt, Ireland). Anaesthesia was again induced with propofol 1 mg kg^{-1} and atracurium 0.5 mg kg^{-1} . The plan was to exchange the tracheostomy tubes over a Cook airway exchange (CAE) catheter (William Cook, Europe, CAE-Ref 19.0-83). The inner lumen of the Shiley tube was removed, and the CAE was passed through the outer lumen of the tube, but with resistance. When the fenestrated tube was withdrawn, the CAE was noticed to have slipped through the fenestration. The maxillofacial surgeon immediately took control and replaced the adjustable tracheostomy tube under direct vision using Langenbeck's tissue retractors. The position of the tracheostomy tube was confirmed with the FOB. The whole procedure lasted less than 4 min, and the patient remained well oxygenated throughout.

By comparing and contrasting Rajendram's report and our own, we have learnt several important lessons:

- (A) The CAE is much more rigid than the AIC, and therefore, more difficult to pass along the natural curve of the tracheostomy tube.
- (B) The visual (FOB) method adds an extra element of certainty in securing the airway although this is less necessary when the tube is replaced under direct vision.
- (C) The presence of the Maxillofacial/ENT team is mandatory.
- (D) Use of the fenestrated tracheostomy tube in the early stages of managing tracheostomized patients can be hazardous if correct consideration is not given to the presence of the fenestration in the outer tube.

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An unexpected CXR finding after central line insertion

Editor—We wish to describe a procedure involving routine ultrasound-guided left internal jugular (LIJ) line placement, followed by an abnormal post-line insertion chest X-ray (CXR).

A 44-yr-old man was admitted to our intensive care unit after bilateral nephrectomy for adult polycystic kidney disease (APKD). Surgery was uneventful. A right internal jugular (RIJ) line was placed after induction of anaesthesia, and the postoperative CXR was unremarkable, with an acceptable final line tip position. After an uneventful initial 48-h postoperative course, the RIJ line was removed. The patient continued to receive haemodialysis via a right subclavian Tessio line. Postoperative day 3 was complicated by sepsis and fast atrial fibrillation (rate $140\text{--}160 \text{ min}^{-1}$). As a result, to aid subsequent management, a decision was taken to re-insert a central line. An ultrasound-guided LIJ line was sited uneventfully, and a good central venous pressure (CVP) waveform trace was obtained, with an initial CVP of $10 \text{ cmH}_2\text{O}$. However,