Elective and emergency approaches to the surgical airway

Sir,

Professor Ellis gave an excellent description of the anatomy relevant to cricothyroidotomy and tracheostomy (vol 67(9), 2006, p. M168). However, from an intensivist's perspective, the descriptions of surgical approaches to the airway warrant clarification.

Elective and emergency approaches to the surgical airway differ. Elective surgical tracheostomy requires a full set of instruments, electrocautery and, most of all, a surgeon. While usually performed in theatre, remaining in the intensive care unit may offer some advantage (Upadhyay et al, 1996).

Although not mentioned in the article, a different procedure, percutaneous tracheostomy, is now more commonly performed in intensive care unit patients requiring prolonged ventilation (Simpson et al, 1999), with equivalent results (Silvester et al, 2006). Percutaneous tracheostomy is usually performed by an intensivist.

After skin incision, blunt dissection allows identification of the tracheal rings. Using the Seldinger technique, the trachea is entered, dilated, and a standard tracheostomy tube placed. While quicker than the open surgical technique, this remains an elective procedure, inappropriate for emergency airway access. A transverse incision is favoured in the surgical technique, as it may reduce the resulting scar. However, with less equipment available to control bleeding, many intensivists make a vertical incision to avoid vertically running vessels. The merits of vertical incision are debated, but intensivists do not select this technique because they are 'novices'.

Cricothyroidotomy is the preferred emergency surgical airway technique, and is well described. The statement 'a 3 mm diameter tube allows spontaneous breathing' needs clarification. Resistance to flow in a tube is inversely proportional to the fourth power of the radius, but directly proportional to length. Try breathing spontaneously through a 3 mm drinking straw! A 6 mm internal diameter tube is the usual compromise between radius and necessary length.

No description of emergency surgical airway management is complete without mention of needle cricothyroidotomy. A 14 gauge Venflon inserted percutaneously through the cricoid membrane is sufficient for jet ventilation if connected to sufficient driving pressure, which is seldom available on the ward. However, 15 litres/min oxygen intermittently insufflated using an intravenous giving set with a side hole will provide oxygenation until help arrives.

Of concern is the description of mini-tracheostomy as an emergency means of ventilation. Mini-tracheostomy is indicated to facilitate suctioning of secretions in a patient unable to cough. While it is possible to oxygenate or even ventilate through a mini-tracheostomy, few would advocate its insertion for this indication alone. Cricothyroidotomy is a quicker, safer and more effective approach to the emergency airway.

Hospital doctors should certainly become acquainted with cricothyroidotomy and needle cricothyroidotomy. However, outside an appropriate operative environment, in adults tracheostomy is not an emergency airway access technique.

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Modernizing the job application process in the NHS

Sir,

Much is being done to modernize medical careers in the UK, including the introduction of the foundation programme to improve postgraduate training. But has anyone thought about modernizing the process of job applications within the NHS?

Life for an overseas doctor in the UK has never been easy. The journey starts with passing the Professional and Linguistic Assessments Board exams, then looking for clinical attachments, and finally, if you are lucky, getting a job. With no centralized system for job applications, getting a job is a struggle. On average, an overseas doctor spends about 5–10 hours a week applying for jobs. Every Thursday, time is spent downloading application forms, printing curriculum vitae, and then posting them. An overseas doctor can end up spending 20–40 hours a month applying for jobs.

I have been working in the NHS for the past year and have spent at least 300 hours on job applications. This is the case for most overseas doctors. And if a job is for only 6 months, the struggle continues. This precious time could be given to more fruitful activities such as audits, research, studying for membership exams, or leisure.

All this hassle could be avoided with the introduction of a centralized computer system in which application forms could be stored. This would allow individuals to then apply for a job at the click of a mouse. Some countries, such as the USA, have such a system. Given that the UK is a developed country with all the latest information technology, this should not be a Herculean task.

At some web sites, for example www.jobs.nhs.uk and www.hpssjobs.com, a job can be applied for with just the click of a mouse, but unfortunately not all jobs can be applied for through these web sites. A change is possible, provided the relevant authorities take the appropriate steps. Until then, the same old time-consuming applications will continue.

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