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REPLY

Thank you for the comments from Backman et al. on our article Anaesthesia for non-cardiac surgery in heart-transplanted patients[1] concerning the reported lack of effect of anticholinesterase on heart rate. We reported in our series that 11 of the 12 patients who underwent general anaesthesia received intraoperative neuromuscular blocking agents (vecuronium n = 9, pancuronium n = 2). The fact is that no significant haemodynamic effect on heart rate was observed when the block in these patients was reversed with neostigmine with (n = 8) or without (n = 3) atropine. We later stated in our discussion that our result is consistent with the literature: it is generally accepted that heart rate shows no response to drugs like muscle relaxants, anticholinergics, anticholinesterases, etc. However, in the same paragraph, we did mention that slow development of cardiac reinnervation may be possible.[2] I agree with the case report by Backman et al.[3] that one of their heart transplanted patients had a decrease (21%) in heart rate from 95 to 75 bpm after neostigmine administration. In the same report, they stated that two other previously heart-transplanted patients had a reduction of 7% and 14% in heart rate after neostigmine administration. However, we do not know if the decrease in heart rate is a consequence of cardiac reinnervation, prolonged denervation, or direct activation on cardiac ganglionic cells by anticholinesterases.[4] I don't know if this can be justified as a clinically significant bradycardia as no decrease in blood pressure was reported simultaneously. As well, I consider a clinically significant bradycardia as a heart rate <50 bpm. I do not object that muscarinic antagonists be administered with anticholinesterases to block possible muscarinic side-effects of anticholinesterases in heart-transplanted patients. However, I will continue to utilize the heart transplant models for teaching residents regarding denervated heart physiology and pharmacology of anticholinesterase with or with anticholinergic agents.

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The oesophageal tracheal combitube for difficult intubation

To the Editor:

We read with interest the report by Baraka and Salem describing the successful use of an oesophageal tracheal combitube (OTC) following a failed intubation in a patient with a potentially full stomach.[1] As direct laryngoscopy revealed only a Cormack and Lehane grade 4 view, an OTC was inserted and the operation completed using controlled ventilation and a succinylcholine infusion. There are a number of points we would like to make about the use of the combitube in this situation.

Firstly, the authors did not state if facemask (FM) ventilation was attempted. In the "cannot intubate, cannot ventilate" situation, use of the OTC may be appropriate.[2] If, however, adequate ventilation can be achieved with an FM and maintained cricoid pressure, use of the OTC could not be recommended since it is a blind technique and ideal placement is not guaranteed. In this circumstance, the most appropriate course of action is probably to wake up the patient and secure the airway using an awake technique before proceeding with surgery. If difficult tracheal intubation is anticipated, as in this case, we consider than an elective awake intubation technique would be wiser than a rapid sequence induction of anaesthesia where applied cricoid pressure may worsen the view of the larynx.[3]

Secondly, the authors comment that the OTC may be preferred to the laryngeal mask airway (LMA) in the difficult intubation situation whenever the patient is con-

sidered to be at high risk of regurgitation and aspiration. However, whilst the OTC probably offers increased airway protection, its value has not been proved in this clinical situation. The LMA does not protect the trachea from regurgitated stomach contents, but has been shown, by Baraka amongst others,[4] to be life-saving on occasions where tracheal intubation and FM ventilation have both failed. The risk/benefit ratios of these two devices have not been assessed and it is premature to presume that one is superior to the other. The LMA is commonly used during general anaesthesia making it more familiar and immediately available; it can be used in children and it can also be used as an airway intubator.[5] There is also indirect evidence that LMA insertion is not compromised in the patient with a difficult airway.[6-9] In a recent trial, the LMA was used 41 times in 40 adult patients sustaining a cardiopulmonary arrest at a district general hospital. The LMA failed on only two occasions, and was successful in three cases where tracheal intubation was impossible. There were no cases of LMA-related aspiration.[10]

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REPLY

The "cannot intubate, cannot ventilate" situation denotes a situation when both tracheal intubation and face mask ventilation have failed. Our patient fell into this category, and hence the Oesophageal Tracheal Combitube (OTC) was utilized for ventilation.[1] The Laryngeal Mask Airway (LMA) has been also life-saving in similar occasions.[2]

Although the OTC probably offers airway protection in the "full-stomach" situation, the LMA may decrease lower oesophageal sphincter pressure,[3] and does not protect the trachea from regurgitated stomach contents. However, I agree with Brimacombe and Berry that the risk/benefit ratios of these two devices have not been assessed in patients with "full-stomach," and it is premature to presume that one is superior to the other.

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Succinylcholine warning

To the Editor:

We read with complete disbelief of the recommendation from Burroughs Wellcome against the use of succinylcholine in adolescents and children. Like our colleagues in Toronto, we have used this drug in the majority of anaesthetics administered to children since the 1950's and found it to be extremely useful, reliable and safe.

The discovery of an adverse effect of a drug should not prompt an immediate recommendation not to use it. All drugs have adverse effects, the only way to avoid them completely is to not use drugs at all. The decision should only be based on the risk/benefit ratio of the drug