Anaesthesia for radiotherapy

To the Editor:

We note with interest Dr Maltby's article¹ on sixteen repeat ketamine anaesthetics to a child, for radiotherapy in the prone position. Our department* has given 176 anaesthetics in the last year to twelve children (aged three to five) to enable radiotherapy to be carried out either in the prone or the supine position, due to the inability of the children to co-operate adequately whether sedated or not.

The first two-thirds of these utilised either IM or IV ketamine with atropine and without any premedication. The children had anaesthetics five times a week for up to seven weeks, and the experience for child, parent, nursing staff and anaesthetist can only be said to have been harrowing. Apart from lack of amnesia and the distress of frequent injections, other problems we have encountered with ketamine have included generalised crythema, excess salivation, marked laryngospasm, dysphoria, unpleasant hallucinations, rapid exhaustion of veins, sore muscles, prolonged vomiting and inability to return to early feeding. Prolonged recovery also had a disadvantage in tying a busy anaesthetist to the radiotherapy department until the children were safely awake.

The last one-third of these patients have been given an oral temazepam pre-medication ($0.6-0.8 \text{ mg} \cdot \text{Kg}^{-1}$) with or without atropine according to the child one hour prior to treatment, and then induced and maintained with an inhalational technique alone, using enflurane/nitrous oxide/oxygen. During treatment anaesthesia is maintained by insufflating the gaseous mixture into a normal plastic Guedel-type oral airway by means of plastic tubing and a small metal connector heat sunk into the airway. By this means the depth of anaesthesia can be easily maintained (or indeed increased) and we avoid any injections. It is arguable whether scavenging of gases in such a circumstance is necessary and we have not pursued this.

The children, once their and their parents confidence is won, readily accept the technique and

indeed place their faces into the anaesthetic mask without any crying or struggling. There have been fewer problems with salivation and laryngospasm, no dysphoria beyond the twenty-minute recovery period, their veins are preserved and they have no residual soreness, they return to feeding almost instantly without vomiting, and the rest of their day and night is unmarred by residual drug or emotional effects. The anaesthetist is also released early due to the quick recovery period. We do not consider enflurane induced hepatitis to be a problem in this circumstance and accordingly now routinely use this enflurane technique.

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REFERENCE

- 1 Maltby JR, Watkins DMB. Repeat ketamine anaesthesia of a child for radiotherapy in the prone position. *Can Anaesth Soc J* 1983; 30: 526-30.

Packaging of single dose vials of local anaesthetics

To the Editor:

Injectable local anaesthetics are supplied in either "multi-dose" or "single-dose" formats. "Multi-dose" bottles usually contain, in addition to the medication, agents (methylparabens) to retard bacterial growth, and to prolong shelf-life, should a needle-entry result in bacteriological contamination, and also a preservative or stabilizer (metabisulphites) to prevent decomposition or loss of potency of epinephrine. "Single-dose" bottles are intended to be discarded after their first use; if they do not contain epinephrine, neither of the above additives will be included. In fact, methylparabens are contra-indicated if the local anaesthetic is to be given by the intravenous, epidural or subarachnoid

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