Finally, I would like to bring to the attention of Journal readers a report[1] to be presented at the 1986 CAS Annual Meeting in Montréal. This paper summarizes our experience with 956 patients having muscle biopsies between 1968 and 1984 and demonstrates that only 0.6 per cent of the patients developed MH reactions, which were invariably mild and quite amenable to dantrolene therapy.

Beverley A. Britt MD, FRCPC
Department of Anaesthesia
University of Toronto
Toronto, Ontario

REFERENCE

1 *Cunliffe M, Lerman J, Britt BA.* Is prophylactic dantrolene indicated for MHS patients undergoing elective surgery? Can Anaesth Soc J 1986; 33: S113–S114.

Magnetic resonance imaging

To the Editor:

I was interested to read the CME section on Imaging for Anaesthestists by Weston *et al.*[1] There are several points which I feel are worthy of mention with regard to magnetic resonance imagers (MRI).

First, as the imaging coil is typically two metres in length, with an internal diameter of 0.6 metres, the patient is not only remote from the anaesthetist, but also inaccesible, poorly illuminated and often completely hidden from view. Further, enhanced resolution for cranial imaging may require placement of the patient's head inside a supplementary coil. The additional space limitations imposed under these circumstances requires the use of preformed plastic tubes (e.g. Rae), if endotracheal anaesthesia is to be administered. These problems are not unique, particularly in the radiology environment, but imply we must depend heavily on monitoring systems, which may themselves be subject to magnetic or radiofrequency interference. The enclosed environment leads to claustrophobia in three to four per cent of awake patients,[2] whilst the drumming noise emitted by MRI devices during scanning may be uncomfortable for some patients. Sedation may not have the desired effect in these patients.

Second, superconducting toroidal magnets as used in some MRI devices are unstable. They are kept at an operating temperature of −270 K by liquid nitrogen and helium, and cannot be switched off. The static magnetic field effects are therefore ever present and precautions relating to ferrous containing devices apply at all times, even in an emergency. MRI devices using resistive magnets may be switched off in an emergency, but may take several hours to stabilise when restarted.

Third, the current generation of MRI devices operate at a magnetic field strength of 0.15–0.5 Tesla, but the new devices are capable of developing field strengths up to 2 Tesla. Shielding is required to control the extent of the magnetic field outside the imaging room with these high field strengths and the anaesthetist must be familiar with his local imager before embarking on anaesthesia. As in many other areas, often "just a whiff of gas" is not quite as straightforward as it appears to our colleagues from other specialities.

C. Nixon MB, CH B, FFARCS
Department of Anaesthesia
University College Hospital
London, England

REFERENCES

1 *Weston G, Strunin L, Amundson GM.* Imaging for Anaesthetists: a review of the methods and anaesthetic implications of diagnostic imaging techniques. Can Anaesth Soc J 1985; 32: 552–61.

2 *Bydder GM.* Clinical nuclear magnetic resonance imaging. Br J Hosp Med 1983; 29: 348–56.