potential difference between the bifrontal recording electrodes resulting in a nearly flat line (isoelectric) tracing. In contrast, the MECTA instrument will show the greatest activity in tracings of asymmetrical aborted seizures (demonstrated as such by standard EEG recording). Another methodological problem with their study is the alteration at the next session of the stimulus parameters presumably to prevent unacceptable convulsions. The authors do not describe the amount of barbiturate anesthesia or other medications given to each patient. We have demonstrated that the anticonvulsant properties of barbiturate anesthesia can reduce the length of electroconvulsive seizures by 40 per cent (Lunn *et al*, 1981), and Ottoson (*Journal*, July 1982, **141**, 103) points out that benzodiazepines either pre-ECT or as nocturnal sedation can reduce the length of or prevent ECT seizures. We have also observed that the same dose of anesthetic barbiturate can produce different degrees of anesthesia (and presumably different anticonvulsant effect) on different days. While their basic premise that ECT be monitored by EEG recording is good, the methodological problems with this particular study by Christensen and Koldbaek make their findings of questionable value.

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ELECTRIC SHOCK HAZARDS FOR OPERATORS OF ECT EQUIPMENT

DEAR SIR,

Operators of ECT equipment have reported to us that on several occasions they have received mild electric shocks whilst using a standard constant voltage ECT instrument (Electron Duopulse Mk4). When tested, the equipment was functioning correctly and complied with the current electrical safety standards (BS 5724).

However, the operating instructions state that the electrodes of the bilateral headset should be soaked in electrolyte solution to ensure good electrical contact to the patient. Inevitably the legs of the headset become soaked in the electrolyte solution producing a conducting path along the surface of the Tufnol insulation. In our experience the operator held the headset in one hand and the patient's chin in the other. If the operators hand touches one of the Tufnol legs in the headset, an alternative path for the current through the operator is produced. We have demonstrated that currents of 1 mA (r.m.s.) can flow through the operator, producing a sensation of tingling and a mild shock. This current is unlikely to cause major physiological changes but is twice the acceptable limit for leakage currents in electromedical equipment (BS 5724).

The same problem can arise with two-handed sets although in this case the operator's hands must be connected to both electrodes. The problem is reduced with a constant current device (Ectron constant current series 2). Since the mean voltage is lower (although the peak voltages may be higher), the current experienced by the operator is lower.

The methods of dealing with this problem are:

(a) The operator should wear rubber gloves (domestic or surgical gloves are suitable, but not vinyl inspection gloves).

(b) The operator should minimise the amount of electrolyte splashed onto the insulating legs.

(c) The headset should be treated with the same caution as one would treat a piece of mains operated equipment.

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