### Failure to Convulse with Electroconvulsive Therapy

SIR: Sharpe & Andrew (Journal, January 1988, 152, 134–136) report on a case of a 32-year-old woman in whom it was not possible to induce a seizure despite 15 ECT applications. The author's are to be commended on the changes in technique such as the move from unilateral to bilateral, reduction in methohexitone dosage, extensive pre-oxygenation, and the use of chlorpromazine, all of which were designed to alter fit threshold.

The case raises the question as to whether we have moved too far in the direction of low energy stimuli in the design of ECT machines. The authors report energy in joules, but it is more conventional to refer to energy in terms of millicoulombs. The two machines that were used are not capable of delivering more than approximately 500 millicoulombs even at their maximum setting. This applies to most modern machines, including those manufactured in the United States. There is one machine available – the Neurotronics (NTS) Machine – which at its maximum setting will deliver 2000 millicoulombs. There may be a case for having a wider range of stimuli to allow for the occasional patient with a very high fit threshold to be successfully treated.

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SIR: Sharpe & Andrew (Journal, January 1988, 152, 134-136) dismiss drug effects as a possible cause of the increased convulsive threshold in their patient, on the grounds that amitriptyline and chlorpromazine are known to reduce seizure threshold. While this is indisputable for spontaneous convulsions, tricyclic antidepressants antagonise electricallyinduced seizures in animals (Spencer, 1976). Drug effects in these two situations thus appear to be quite different. In my experience, recognition of this in Canada led to the routine practice of discontinuing tricyclic antidepressants when giving ECT. Sharpe & Andrew do not indicate the concurrent dose of amitriptyline, but one alternative not tried in their case was discontinuation of all psychotropic medication during ECT.

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#### Hypomania and Epilepsy

SIR: Barczak et al (Journal, January 1988, 152, 137–139) failed to find a "single case report of hypomania and epilepsy in the English-language press." I would refer them to Ferguson & Rayport (1984). In a series of 50 patients with a combined diagnosis of temporal lobe epilepsy and psychosis, Flor-Henry (1969) made a diagnosis of manic-depressive psychosis in 9 cases on the basis of periodic elation and depression with preservation of the personality.

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# References

FERGUSON, S. M. & RAYPORT, M. (1984) Psychosis in epilepsy. In *Psychiatric Aspects of Epilepsy* (ed. D. Blumer), pp. 263-264. Washington, DC: American Psychiatric Press.

FLOR-HENRY, P. (1969) Psychosis and temporal lobe epilepsy: a controlled investigation. *Epilepsia*, 10, 363-395.

## **Hypomania following Complex Partial Seizures**

SIR: The recent report by Barczak et al (Journal, January 1988, 152, 137–139) describes three cases of hypomania occurring as an interictal phenomenon in patients with complex partial seizures. The authors comment that the association is uncommon and note the apparent relationship with right-sided seizures. We describe a further similar case.

Case report: The patient is a colourful character, well known to the Liverpool psychiatric services, who was born in Trinidad of Portuguese parents. He first came to attention in 1975 at the age of 54 with a series of admissions, prompted by the police, following his disinhibited behaviour in public. He was described at the time as overactive, with marked flight of ideas, using clang associations and rhyming. He was also restless and sexually disinhibited, although cognitively remaining alert, responsive, and orientated. At the time he was maintained on phenytoin, which had been used to treat idiopathic epilepsy of long standing.

The following 12 years have resulted in more than 20 admissions to psychiatric wards, and a clear pattern has evolved. The patient has a single, or series of, grand mal convulsions which have been observed by staff on occasions. There then follows a usually brief period of postictal confusion and irritability, followed later by an elevation in mood, pressure of speech, flight of ideas, grandiosity ("I'm able to pour sunshine over the world"), sexual disinhibition (asking nurses, in Portuguese, to go to bed with him) and motor over-activity with sleeplessness. With treatment by neuroleptics, this hypomanic state settles within a few days, the patient usually returning to an euthymic state.

Serial EEGs have revealed a right-sided temporofrontal lobe focus suggestive of subcortical epilepsy.