turn evoke behavioural abnormalities, represents a promising avenue for the further understanding of brain-behaviour relationships.

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Trichotillomania

SIR: In their interesting report of a female victim of incest with trichotillomania, Singh & Maguire (*Journal*, July 1989, **155**, 108–109) conclude that sexual conflicts must always be considered when assessing trichotillomania. I would like to add two points to this conclusion.

Firstly, the authors do not mention the presence or absence of trichophagia (hair eating) in their patient. This is essential to ascertain, because of the well-recognised complication of trichobezoar. Mere enquiry is insufficient, as evidenced by Grant *et al* (1979), who reported a trichobezoar occurring when trichophagia was denied. At operation there was incontrovertible evidence of recent hair ingestion. Enquiry into gastrointestinal symptoms, physical examination and further investigations where relevant should be considered when assessing trichotillomania.

Second is the well-worn question of the role of iron deficiency in the picas in general. This has been debated for decades, and there are many anecdotal reports of a dramatic response to iron therapy (e.g. Coleman *et al*, 1981). However, a controlled study in the mentally handicapped (Bicknell, 1975) did not support the conclusions of earlier investigators (e.g. MacDonald & Marshall, 1964) that iron deficiency is aetiologic. McGhee (1980) reported trichotillomania and trichophagia in two children with iron deficiency anemia whose behaviour ceased when serum haemoglobin was restored to normal levels. One had a trichobezoar, one did not. Whatever the relationship – whether primary or secondary – the occurrence of iron deficiency in conjunction with trichophagia is sufficiently well documented to indicate that a full blood count and serum iron estimation should be considered when assessing trichotillomania.

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Failure to convulse with ECT

SIR: Complete inability to convulse in ECT has occasionally been reported (Sharpe & Andrew, 1988). This issue has long been controversial (Freeman, 1988; Pippard & Russel, 1988). Electrical parameters such as electrode placement, stimulus waveform, duration of pulse train and amount of energy delivered have been discussed as possible contributing factors. In clinical practice, the most widespread ECT devices use sine-wave stimulus waveforms (often modified). Pippard & Russel (1988), referring to such instruments, argued that the effective amount of energy delivered is probably too low to induce seizure and a satisfactory clinical response, suggesting that a constant current stimulus of 275–325 mC lasting about 3.25 ms at pulse rate of 50–60 Hz could overcome the problems of a minority of patients with high seizure thresholds. Freeman (1988) agreed, proposing the use of an ECT device which is able to deliver 2000 mC at maximum setting for high threshold patients.

We report a clinical observation, with a modern brief-pulse, constant current device (Thymatron, Somatics) on a cohort of 115 patients (age range 18–78) for which ECT was prescribed by their consultant. Energy delivered ranged from 75.6 to 302.4 mC, with a duration of pulse train that ranged from 0.6

to 2.4 s at pulse rate of 70 Hz. Impedance was controlled through the Thymatron impedance meter.

There were only seven missed seizures out of 557 treatments (1.2%), while no patients showed a complete inability to convulse during each ECT session. One patient only showed more than one missed seizure for the session (two out of four). The energy we delivered is considerably lower than that reported by Freeman and Pippard & Russel, and this discrepancy could be explained in terms of the critical electric parameter of the stimulus waveform. The superiority of the brief-pulse waveform compared with the sine wave form in terms of efficacy has been well documented in a number of controlled studies (Weaver *et al*, 1977). In fact, a square wave delivers all of its energy above the threshold, whereas the sine wave delivers substantial amounts of below-threshold energy (Maxwell, 1968). The consequence of this is that all the energy delivered (without dispersion) is valid to induce seizure.

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Spontaneous orgasms – an explanation?

SIR: Al-Sheikhli (*Journal*, August 1989, **155**, 269–270) reported a case of spontaneous orgasms in a 45-year-old lady in the absence of gynaecological, hormonal, or overt psychological disturbances and asked for an explanation for the phenomenon. The next step in management should be a careful search for organic brain disease. Lishman (1978) cites a case where a hemangioma of the medial surface of the sensory cortex caused similar experiences localised to the contralateral side of the vagina (Erickson, 1945). This lady's symptoms occur in a transient, episodic, recurrent fashion, which is the basic format of most epileptic disorders. Skull X-ray, an EEG and a computerised tomography scan could help to rule out structural pathology causing secondary electrical changes. A trial of antiepileptic medication seems worthwhile, even in the presence of an apparently normal EEG. This basic 'organic work-up' is essential before any psychological avenues are explored.

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Pseudodementia

SIR: Howells & Beats (*Journal*, June 1989, **154**, 872–876) describe an intriguing case with partial recovery, to which we should like to add our own experience.

Recently, for the first time in the 10-year history of our unit, we have admitted several unusual cases of 'pseudodementia'. These were four females with florid illnesses, unknown to each other, and admitted at different times. Two were married, one had been living with a common law husband, and one was recently widowed. Three were Canadian born, and one was a West Indian immigrant. Ages ranged from 70 to 80 years. Previous history consisted of a discrete episode of depression, 30 years earlier, in one case and several admissions over 20 years to mental hospitals in other countries, in another. The patients had received ECT. Otherwise there was no history of psychiatric disorder, or drug or alcohol abuse. Histories of the present illness ranged from six months to three years.

The cases presented with bizarre behaviour, varying from frenetic activity and screaming to withdrawal and somnolence. The behaviour varied both between cases and over time. Central to the mental states were dysphoric mood, anxiety, confusion, and Ganser responses. However, only one case approached the level of major affective disorder. All