

## Correspondence

*Correspondents should note that space is limited and shorter letters have a greater chance of publication. The Editors reserve the right to cut letters and also to eliminate multitudinous references. Please try to be concise, strictly relevant and interesting to the reader.*

### SMOKING PROFILES OF PATIENTS ADMITTED FOR NEUROSIS

DEAR SIR,

In their paper (*Journal*, July 1981, **139**, 43–6) Salmons and Sims said that our 1971 study (Eastwood and Trevelyan), which found that smoking and neurotic illness were unrelated, was unconvincing as all psychiatric disorders were grouped, and we did not measure neuroticism. This brief dismissal ignored the facts that the study was undertaken on general practice patients using a well-known standardized clinical interview schedule (Goldberg *et al.*, 1970). The great majority of psychiatric illness in the community is of a neurotic nature and of our sample, 95 per cent indeed suffered from neurotic illness. Since the frequency of smoking in the general population is at least twice that of the prevalence of psychiatric disorder, cultural factors must play a paramount role. Furthermore, smoking is increasing amongst the young while the greatest prevalence of neurotic illness lies amongst the middle aged. Where a reduction in smoking behaviour has taken place, amongst middle-aged men, it is highly improbable that it has been due to their losing a neurotic illness, but more likely peer pressure and prohibitive taxation.

The deduction that Salmons and Sims made from their selected hospital sample, that “community health strategies for reducing cigarette dependence should take neuroticism into account”, seems dubious and, indeed, is based upon weak data. Their hypotheses are reported as though supported and yet only some subcomparisons are significant and often only at the 5 per cent level. Furthermore the chi-square test is used when sometimes cell size is less than five. Examination of Table III shows that the only significant difference between contrast groups with respect to age at starting to smoke was due to the disproportionately small number of neurotics in the older group. Combining the age group figures for males shows that approximately equal proportions of the samples had started smoking by age 30. When the raw data in Table VI are converted to percentages, it is found that 141 per cent of surgical smokers and 122 per cent of neurotic smokers were found to inhale deeply(!).

This paper does not seem to belie the final conclusion of our earlier paper which was that “the excuse that smoking is a panacea for neuroticism does not seem tenable for the population as a whole”.

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### DIAGONAL ELECTROCONVULSIVE THERAPY

DEAR SIR,

Recent studies on the efficacy of unilateral and bilateral electroconvulsive therapy (ECT) in the treatment of depression have not produced unanimous results. We wondered if a diagonal electrode placement (left fronto-right occipital), by directly activating both hemispheres whilst avoiding the temporo-parietal region, might produce the therapeutic efficacy of bilateral ECT with the memory impairment of unilateral ECT.

We designed a study to look at this possibility but abandoned it when the first patient reacted badly to the treatment. The patient was a 49-year-old right handed lady presenting with an agitated depression. The anaesthetic given was methohexitone sodium with suxamethonium as muscle relaxant and 0.6 mg atropine. The machine used was an Ectron Mark IV producing a sinusoidal uniphasic wave form and delivering approximately 30–40 joules. Psychological testing included parts of the Moyra Williams and Wechsler memory scales and the Klove Matthews grooved pegboard test.

All measures showed a marked impairment following the first diagonal ECT which had mostly

disappeared after the fourth treatment. A bilateral electrode position had been resumed after the second diagonal ECT.

The patient's subjective impressions were as follows:

1. She experienced slight periods of 'confusion' after coming round from her treatments. This was worse after the second (diagonal) treatment, when she felt 'totally confused for thirty six hours'. The third (bilateral) ECT was described as a 'milestone', by which she meant that she felt considerably improved.
2. After the second treatment she became 'almost completely deaf', her vision became 'very peculiar' and she felt that objects 'jumped' and 'swam'. She described feeling 'extremely frightened'.

The auditory and visual symptoms were not associated with any objective signs on clinical testing; e.g. reduced hearing or nystagmus. These disturbances together with the memory impairment had subjectively resolved within three weeks of the last diagonal ECT.

It is tempting to speculate that the visual dysfunction was related to the close proximity of one electrode to the occipital cortex. We report these incomplete observations as providing probable evidence of the adverse effects of this form of ECT.

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#### ECT AND CEREBRAL DAMAGE

DEAR SIR,

We feel that Professor Kendell, in his review of the present status of electroconvulsive therapy, overstates the case when he says that there is no evidence from animal studies that electrically induced convulsions produce cerebral damage.

The results from two animal studies (Ferraro *et al*, 1946; Hartelius, 1952) indicate that there are structural changes in neurones and glial cells, especially in the frontal area, following electrically induced convulsions, and that the degree of damage is proportional to the number of convulsions received.

Computerised tomography has now provided a non-invasive method of examining structural changes *in vivo*. Weinberger *et al* (1979) performed CT scans on 75 chronic schizophrenics and found that in 17 ECT-treated patients there was significantly more

cortical atrophy than in 58 patients who had not received ECT. In 41 elderly depressives who had CT scans as part of an earlier study (Jacoby and Levy, 1980) we found a statistically significant association between frontal lobe atrophy and previous treatment with ECT (Calloway *et al*, 1981).

In view of these findings, a comprehensive study to investigate the association between ECT and cortical atrophy is being undertaken in the Academic Department of Psychiatry, the Royal Free Hospital.

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#### POST OPERATIVE DEPRESSIVE STUPOR REQUIRING ECT

DEAR SIR,

It is well known that minor psychiatric complications may follow surgery, but occasionally a severe psychiatric illness can occur. Knox (1961) estimated that 1 in every 1600 surgical procedures was followed by a severe disturbance of which one third were due to depression.

We would like to report what we believe is a unique case—of a severe depressive stupor occurring within a few days of surgery where it was necessary to administer electroconvulsive therapy (ECT).

#### Case report

A 71-year-old man, who had no previous psychiatric illnesses, presented with dysphagia due to carcinoma of the oesophagus. He was admitted to hospital and an oesophagectomy was carried out. For the first three days post-operatively he appeared quiet and withdrawn but fully orientated. This state rapidly worsened and by the fifth day after surgery he was mute and unresponsive, although