

the Tower Hamlets population in these age groups that were of Asian origin, and compared Asian and non-Asian self-poisoners. We found no significant difference in the proportion of male Asians in the age group 10–24 who made parasuicide attempts; nor did we find an excess of Asian female patients in the age groups 10–14 and 20–24. However, of the 156 women aged 15–19 who presented with self-poisoning, 25 (16%) were Asian. Asians constituted only 7% of the female population in this age range, so this represents a significant excess ( $P < 0.005$ ).

Merrill & Owens (1986) suggested that unmarried adolescent girls face culture conflict around family discord over Asian versus Western lifestyles. Dr Manium draws attention to parents' disapproval of marriage in the predominantly Muslim population of his study, which can lead to conflicts in both these areas.

In contrast to the Malay study, where there was a high rate of suicide, there were no reported suicides of Asians aged 10–24 from North East London between 1980 and 1984.

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#### Castration and the Sexual Offender

SIR: Salzmann (*Journal*, August 1988, **153**, 270) recommends castration (orchidectomy) of persistent sexual offenders. His paradigm is "the Danish approach". He writes that "castration [is] voluntarily accepted by many inmates in Herstedvester as the price of release from indefinite detention". In that Dr Salzmann is wrong.

Due to fierce opposition within the public and the Danish Medico-Forensic Council, orchidectomy was abandoned in 1968. This procedure is an absolutely unthinkable approach to the sexual offender in Denmark today!

Currently, castration is only performed on a small number of transsexuals (2–3 men a year), this being a completely different issue.

On another note, we should add that the legal sanction "indefinite detention" within a treatment

and rehabilitation perspective as epitomised by the Herstedvester model was rescinded in 1973.

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#### Melatonin and Sulphatoxymelatonin in Eating Disorder Patients

SIR: We read with interest the report by Bearn *et al* (*Journal*, March 1988, **152**, 372–376), in which urinary sulphatoxymelatonin (aMT6s) excretion was compared in underweight and weight-restored patients with anorexia nervosa and in age-matched female controls. No significant differences were found between groups at any time, and the authors concluded that melatonin output, as assessed by aMT6s, was not influenced by changes in weight, although they did not directly assess plasma melatonin levels, or consider the relative influence of depression within the patient group.

We have recently completed a comparative study involving both nocturnal serum melatonin and urinary aMT6s in female patients with anorexia nervosa ( $n = 15$ ), bulimia nervosa ( $n = 9$ ) and in control women ( $n = 10$ ) of similar age. All groups were compared according to weight and mood variables. Patients with anorexia nervosa had a significantly lower percentage of ideal body weight ( $76.4\% \pm 9.9\%$ ) than bulimia nervosa patients ( $102.1\% \pm 12.3\%$ ) and controls ( $105.2\% \pm 14.2\%$ ) ( $F = 22.2$ , d.f. = 33,  $P < 0.001$ ). Both patient groups had significantly higher depression scores on the Hamilton Rating Scale for Depression (HRSD) (Hamilton, 1967) (for anorexia nervosa patients  $19.8 \pm 9.6$ ; for bulimia nervosa patients  $16.4 \pm 8.4$ ) compared with the control group ( $2.7 \pm 2.6$ ) ( $F = 14.9$ , d.f. = 33,  $P < 0.001$ ).

There were no differences between patient groups and controls in night-time values of urinary aMT6s or serum melatonin values. A two-way analysis of variance for both urinary and serum results was carried out to examine the effects of weight and depression as independent variables among patients. Although weight did not influence either of these measures, a significant effect was found for depression. Patients who met DSM-III-R diagnostic criteria for major depression (American Psychiatric Association, 1987) and had HRSD scores equal to or higher than 17 had significantly lower melatonin output than the non-depressed group for both serum melatonin ( $F = 4.22$ , d.f. = 1,  $P < 0.05$ ), and urinary aMT6s ( $F = 6.51$ , d.f. = 1,  $P < 0.02$ ).

These findings support previous reports in which reduced nocturnal melatonin has been observed in major depression, particularly of the melancholic subtype (Brown *et al*, 1985; Claustrat *et al*, 1984). We therefore agree that urinary aMT6s is a practical index of melatonin output from the pineal gland and, like serum melatonin, does not appear to be increased in patients with anorexia nervosa at low weight.

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#### Lithium-Induced Paranoid Hallucinatory State

SIR: *Case Report*. A 38-year-old man with a history of manic depressive illness was admitted in a manic phase in July 1988. He was hyperactive, garrulous, aggressive, disinhibited, showed thought pressure, and was exposing himself. However, he had no perceptual disturbance or paranoid ideas. His sensorium was clear. Administration of haloperidol and chlorpromazine in high doses was ineffective, and caused intolerable sedation and extrapyramidal symptoms; neuroleptic medications were therefore discontinued. The patient was then given lithium carbonate (500 mg t.d.s.) and his blood lithium level was maintained at 0.45 mmol/l. This medication appeared to be well tolerated and improved his mood and behaviour, but unfortunately he experienced paranoid ideas towards the staff, became disorientated, and had visual and auditory hallucinations. He was convinced that he heard people telling him to do things and go to places such as shops. He was also convinced that he saw his brother speaking to the staff when, in fact, he never visited the ward. He came out of his room naked and alleged that someone had taken away his clothing. His paranoid ideas

and hallucinations were most prominent at night and in the morning at the transition between sleep and wakefulness. His biochemical investigations and EEG revealed no abnormality. His lithium therapy was discontinued, and this resulted in complete abatement of the paranoid ideas and the hallucinations within 24 hours. His mood was then stabilised on carbamazepine, and he remained symptom-free on carbamazepine (100 mg b.d.) at follow-up some four months later.

It has been reported that certain individuals may be more vulnerable to the neurotoxic effects of lithium; in such cases psychotic manifestation can occur, even at therapeutic blood levels (Reynolds *et al*, 1982). My case highlights the uncommon lithium-induced psychotic phenomenon, which is probably due to the interaction of lithium and endogenous opioid systems. However, it appears to be a transitory reaction which has complete recovery at the discontinuation of the offending agent.

Sandyk & Gillman (1985) reported a case of lithium-induced visual hallucinations. Furthermore, it has been shown that lithium may interact with opioid receptors to produce increased activity of the endogenous opioid system (Stengaard-Pedersen & Schou, 1982). Increased activity of the endogenous opioid system has been linked to psychotic behaviour, including hallucinations (Berger *et al*, 1982).

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#### Prediction of Outcome After Treatment for Stuttering

SIR: Knowledge of variables that predict treatment success with adult stutterers is of utmost importance because of their strong tendency to relapse after therapy (Boberg, 1981). Consequently, Andrews & Craig's report (*Journal*, August 1988, **153**, 236–240) is extremely interesting because it claims to have identified three treatment goals (stutter-free speech,