

Anorexia nervosa and schizophrenia

SIR: We report a case of a 54-year-old single woman satisfying all five ICD-10 (WHO, 1992) criteria for anorexia nervosa, occurring together with paranoid schizophrenia, accompanied by religious delusions and the compulsion to fast and pray.

She came from a strongly Conservative Evangelical background and presented with an eight year history, following the break-up of a relationship, believing that God instructed her in the second person to fast. Disobedience produced overwhelming guilt. There were compulsions to shout "Jesus" and to kneel and pray, both producing a feeling of relief. Voices argued about the rightness and wrongness of eating. Fragments of speech and biblical texts (e.g. "comfort all who mourn") were inserted into her mind. She also felt the 'presence' of God controlling her physically.

Her childhood was uneventful and she worked in teaching and secretarial posts. She had become amenorrhoeic at 46 years. A niece had suffered a brief reactive schizophreniform psychosis.

During her admission she would kneel to pray throughout the night which caused both bilateral leg swelling and foot-drop. Under "God's instructions" she induced vomiting, exercised vigorously and took repeated cold showers and she also expressed fear of gaining weight, becoming fat or appearing ugly to others. Affective symptoms were absent. Ten years earlier she weighed 51–54 kg. Weight fell during her admission from 40 to 35.1 kg.

Treatment necessitated detection under Section 3 of the Mental Health Act. She was eventually referred to the Feeding Disorders Unit at the Maudsley Hospital, after failing to respond to various antipsychotics (including trifluoperazine, haloperidol, chlorpromazine and remoxipride), antidepressants, ECT or behavioural programmes. The unit agreed with the twin diagnoses.

We believe the patient developed anorexia nervosa secondary to paranoid schizophrenia. Alternatively, schizophreniform symptoms may develop in up to 29% of anorexic patients (Ferguson & Damluji, 1988) but these are more commonly 'negative' than 'positive' symptoms, and contrary to the findings of Hsu *et al* (1981), we found affective symptoms to be absent. The two conditions could obviously co-exist together by chance.

Bell (1985) described religious fanaticism associated with anorexia in medieval Italy. Our patient pursued weight loss due to disturbed body image and to produce purity of spirit.

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FERGUSON & DAMLUJI (1988) Anorexia nervosa and schizophrenia. *International Journal of Eating Disorders*, 7, 343–352.

HSU *et al* (1981) Schizophrenia and anorexia nervosa. *Journal of Nervous and Mental Disease*, 169, 272–276.

WORLD HEALTH ORGANIZATION (1992) The Tenth Revision of the International Classification of Diseases and Related Health Problems. (ICD-10) Geneva: WHO.

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Mental handicap and the pandemic influenza

SIR: I read with great interest Crow (*BJP*, May 1994, 164, 588–592) and Selten & Slaets (*BJP*, May 1994, 164, 674–676) on influenza and schizophrenia.

I examined the case notes of all mentally handicapped patients admitted to the four hospitals in the Stoke Park Group, Bristol, from the South Western Regional Health Authority, born between 15 August 1957 and 14 August 1958 ($n=22$). I also included patients born between 15 August 1955 and 14 August 1957, and between 15 August 1958 and 14 August 1960 ($n=84$) and compared the table of O'Callaghan *et al* (1991).

The number of births between 15 August 1957 and 14 August 1958 was similar to the average number within the same period of the control years. There may be a number of explanations for this: (a) our sample is small and unrepresentative as it only includes hospitalised, most severely mentally handicapped people; (b) mildly mentally handicapped people with superimposed schizophrenia might have been included with schizophrenics in the authors' regional survey; and (c) maternal viral and other infections are sometimes associated with marked congenital abnormalities of the central nervous system, for example anencephaly and other congenital malformations. The children are either stillborn or are mentally handicapped but could have been labelled only according to their associated physical disabilities.

There is a need for further studies of the mental and physical effects of the pandemic A2 influenza of 1957/58 and of 1968/69 (Mattock *et al*, 1988), excluding other teratogenic agents causing similar damage.

MATTOCK, C., MARMOT, M. & STERN, G. (1988) Could Parkinson's disease follow intra-uterine influenza?: a speculative hypothesis. *Journal of Neurology, Neurosurgery and Psychiatry*, 51, 753–756.

O'CALLAGHAN, E., SHAM, P., TAKEI, N., *et al* (1991) Schizophrenia after prenatal exposure to 1957 A2 influenza epidemic. *Lancet* 337, 1248–1250.

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Ejaculation associated with zuclopenthixol

SIR: We report a patient who, we believe, suffered spontaneous ejaculation as a side-effect of oral zuclopenthixol.

A 22-year-old man with a four year history of a schizophrenic illness punctuated by marked depressive and hypomanic episodes, was admitted in a state of depression with delusional ideas of guilt. He was treated with ECT ($\times 2$), lithium carbonate (800 mg/day), sulphiride (1 g/day), paroxetine (20 mg/day) and chloral hydrate (1 g/day) regularly and oral zuclopenthixol (10–20 mg) only as required for agitation.

Following the resolution of his psychotic ideation, he complained for the first time of spontaneous ejaculation in the absence of any state of sexual arousal or penile erection. This occurred only after taking oral zuclopenthixol and the ejaculations remitted once this was stopped, despite no changes in other medications.

Spontaneous ejaculation has not previously been reported in association with zuclopenthixol although it has been reported with trifluoperazine and thiothixene (Keitner & Selub, 1983). More usually, zuclopenthixol and other neuroleptics are associated with impotence and painful, reduced or absent ejaculation (Sullivan & Lukoff, 1990). Thioridazine has been particularly implicated (Kotin *et al*, 1976) and it is thought that it may act by a neuroleptic-induced blockade of smooth muscle calcium channels (Pollack *et al*, 1992). In this case, as ejaculation occurred independently of either erection or sexual arousal, it seems likely that it occurred by triggering an isolated, spontaneous contraction of vas deferens smooth muscle. Vas deferens contraction is mediated by post-synaptic alpha-1 receptors (Pollack *et al*, 1992) and although zuclopenthixol is usually known for its antagonistic activity at these receptors (Hyttel *et al*, 1985), only occasional use could perhaps cause the zuclopenthixol to have a partially agonistic effect, which would offer a possible explanation for this side-effect.

Adverse genito-urinary effects of psychotropic medication are vastly under-reported by patients, principally because of their difficulty in raising the issue. Although not previously reported this side-effect may be quite prevalent.

HYTTEL, J., LARSEN, J.-J., CHRISTENSEN, A. V., *et al* (1985) Receptor-binding profiles of neuroleptics. In *Dyskinesia—Research and Treatment—Psychopharmacology supplement 2* (Eds Casey *et al*), pp. 9–18. Berlin: Springer-Verlag.

KEITNER, G. I. & SELUB, S. (1983) Spontaneous ejaculations and neuroleptics. *Journal of Clinical Psychopharmacology*, 3, 34–36.

KOTIN, J., WILBERT, D. E., VERBERG, D., *et al* (1976) Thioridazine and sexual dysfunction. *American Journal of Psychiatry*, 133, 82–85.

POLLACK, M. H., REITER, S. & HAMMERNES, P. (1992) Genito-urinary and sexual adverse effects of psychotropic medication. *International Journal of Psychiatry in Medicine*, 22, 305–327.

SULLIVAN, G. & LUKOFF, D. (1990) Sexual side-effects of anti-psychotic medication: evaluation and interventions. *Hospital and Community Psychiatry*, 41, 1238–1241.

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Sleep disturbance in schizophrenia

SIR: In their review on electro-encephalographic sleep in schizophrenia, Keshavan *et al* (1990) concluded that the following sleep EEG findings are present in schizophrenic patients more frequently than in normal controls: decrease in total sleep time; decreased percentage of slow wave sleep; reduced REM-latency in some patients and reduced REM-compensation following REM-deprivation. However the results in relation to sleep EEG findings may reflect the variability in the studies (medicated v. non-medicated patients, chronic v. acute schizophrenics, and varying diagnostic criteria) and may be due to the heterogeneity of the schizophrenic syndrome as well.

We asked 101 clinically stable schizophrenic out-patients, all using oral neuroleptic medication, to co-operate in a short questionnaire about medication use and their health care needs. Besides other questions, four questions concerned their sleep: (1) do you have problems with your sleep? If yes, (2) do you have problems with falling asleep? (3) do you have problems with maintaining sleep? (4) do you have problems due to early awakening?

The questionnaire was administered by an independent interviewer. Demographic and psychiatric data (age, sex, diagnosis according to DSM-III-R (American Psychiatric Association, 1987), and type of medication) were collected by their therapist. Statistical analysis was performed by means of SPSS-PC.

Eight patients did not participate, so 93 patients (46 men, 47 women; mean age 47 years; range 20–75) were included in the study. No patients had acute psychotic symptoms. Thirteen different oral neuroleptics were used of which flupentixol ($n=22$),