

including ethinate, clomethiazole, methyprylon, and ethanol (Goodman & Gilman, 1985) that act by membrane transport inhibition due to high lipophilicity and produce dose-related sedation devoid of the autonomic side-effects common with those drugs that act putatively via neurotransmitter mechanisms. While it is probably correct to state that the high potency benzodiazepines such as clonazepam and lorazepam have superceded paraldehyde in the parenteral treatment of status epilepticus, it remains useful as a sedative/hypnotic adjunct in hyper-aroused states such as established delirium tremens, psychotomimetic 'street-drug' toxicity, and extreme mania, complementing the actions of neuroleptics of high anti-psychotic potency (but low sedative rating) that are usually administered concurrently. In these cases paraldehyde in normal doses does not produce the marked hypotension common with equi-sedative doses of the low potency sedating phenothiazines such as chlorpromazine which have marked anticholinergic and alpha-adrenergic blocking actions (Hollister, 1977). The patient reported by Linter & Linter arguably received an overdose of a drug no longer indicated for the condition concerned. These two errors should not be extrapolated to adversely influence the continued use of a drug still regarded by many as the standard against which other agents must be measured (McEvoy & McQuarrie, 1986), which has limited but highly specific indications and which currently has no exact pharmacological equivalent.

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Autocastration in Ontario Federal Penitentiary Inmates

SIR: With regard to the report by Waugh (*Journal*, November 1986, 149, 656–658), the summary asserts that autocastration usually occurs in men with chronic paranoid schizophrenia. The evidence for this is not clear in the text, and it seems to contradict our experience, with an admittedly selected popu-

lation, at the Regional Treatment Centre (Ontario). The Treatment Centre provides in-patient psychiatric care for the approximately 3000 federal penitentiary inmates of the region. The following brief case studies cover seven cases of attempted or successful autocastration on record since 1980.

Case reports: (1) A 23-year-old inmate was incarcerated for life for the second degree murder of his mother, which occurred during an argument about his transsexual behaviour. In 1980 he inserted foreign bodies into his genitalia as an attempt to force surgical castration. During reparative surgery his physique caught the attention of the urologist, and subsequent tests confirmed an XYY karyotype. In 1983 he lacerated his scrotum, intending castration, as part of a suicide attempt in protest at prison authorities' refusal to finance sex reassignment surgery. Final psychiatric diagnoses were of transsexualism and schizoid personality disorder.

(2) A 50-year-old Hungarian immigrant, also serving life for murder, in 1981 cut his scrotum, removed his testicles, and flushed them down the toilet, then swallowed the razor blade. He revealed that he did so to pre-empt a Mafia inspired scheme for other inmates to crush his testicles in punishment. Final diagnosis was of paranoid schizophrenia.

(3) A 38-year-old inmate, serving two years for theft, with earlier convictions for prostitution, in 1984 lacerated his scrotum, removed the right testicle, and by stuffing the cavity with cigarette ends, forced a complete surgical orchidectomy. Diagnoses were of transsexualism and antisocial personality disorder.

(4) A 41-year-old man lacerated his scrotum as part of a suicide attempt after revocation of his parole. He had served ten years of a composite 24 year sentence for a series of rapes. While out on parole and because of impotence he had refused continued provera treatment, which in turn led to the revocation. Diagnoses were of adjustment disorder with depressive features, and antisocial personality disorder.

(5) A 40-year-old transsexual, who had castrated himself in 1979, slashed at his penis in 1980 and again in 1983 in protest at being placed in a male, rather than female, institution after his conviction for a series of armed robberies. Diagnoses were of gender dysphoria and personality disorder, unspecified.

(6) A 34-year-old serving ten years for six counts of robbery in 1984 almost completely severed his genitalia and slashed his wrists, intending suicide. He did it, he said, to punish himself. His sexual orientation was normal; diagnoses were of substance abuse and borderline personality disorder.

(7) A 27-year-old transsexual serving a 15-year composite sentence for assault and attempted murder in 1983, under the influence of "brew" and illicit drugs, attempted castration to force sex reassignment surgery. Diagnoses were of transsexualism, substance abuse, and personality disorder, unspecified.

Of these seven patients, three of them successful, only one was diagnosed as having a psychosis. The

others all showed personality disorder of various kinds. Almost all had a previous history of self-mutilation, slashing of the wrists, or previous suicide attempts. The largest group, four patients, consisted of long-standing transsexuals whose disturbed personalities had possibly suggested a poor prognosis for sex reassignment surgery, and who consequently had been refused such surgery by the various specialists they had encountered. Of interest in a generally young population is the higher than average age of the group. While the high proportion of personality disorders may simply reflect the catchment population, which may also account in part for the low number of psychotic patients, this report serves to emphasise that such behaviour is not necessarily, nor particularly often, associated with paranoid schizophrenia. The most common associations seem to be a disturbance of sexual identity, a previous history of self-mutilation, and personality disorder.

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Ethnic labels in South Africa

SIR: We refer to the correspondence regarding the use of South African Population Registration Act categories as a basis for psychiatric research (Sashidharan & Lipsedge, *Journal*, April 1986, 148, 484; Teggin *et al*, *Journal*, November 1986, 149, 667–668; Graham, *Journal*, November 1986, 149, 669). During the time that we were working at the MRC/University of Cape Town Clinical Psychiatry Research Unit this was a major issue of debate. The labels “Black”, “Coloured”, “Indian” and “White” as used in South Africa are fundamentally political, and do not refer in any scientific sense to discrete ethnic or cultural groups (Sharp, 1980). The important way in which these labels are “real” is that they dictate vastly differing access to resources of all kinds, including housing, education, employment, and health care.

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The Continuum of Psychosis and the Gene

SIR: Crow attempts to replace the Kraepelinian dichotomy between manic depressive psychosis and schizophrenia with a continuum of psychosis (*Journal*, October 1986, 149, 419–429). We agree that data such as those obtained by Kendell *et al* support the conclusion that a symptomatic continuum exists. However, the evidence for a genetic continuum of the form envisaged by Crow is less persuasive.

Crow's model is based on several studies from the older literature reporting an excess of individuals with schizophrenia among the offspring of patients with affective disorder while failing to observe the converse. None of these studies employed modern diagnostic criteria, and it is possible that misclassification occurred. Indeed, studies (quoted by Crow) using modern methods have failed to show an increase in schizophrenia among the relatives of probands with affective disorder. Crow also argues that similarities in season of birth effects point to an underlying commonality of genetic mechanisms. However, the season of birth effect in schizophrenia is associated with an absence of a manifest genetic predisposition, suggesting a relationship with environmental factors (Boyd *et al*, 1986).

In contrast, evidence that schizophrenia and affective disorder are based on two independent genetic diatheses is more compelling. Firstly, as Crow acknowledges, the two major functional psychoses by and large breed true. Secondly, bipolar affective disorder appears to have a stronger genetic component than schizophrenia. Crow's hypothesis would appear to predict the converse. Thirdly, Elsässer (1952) found an equal prevalence of the two psychoses in the children of marriages between an affective and a schizophrenic individual. A greater prevalence of schizophrenia than affective disorder is predicted by Crow's hypothesis. Finally, Crow's model also fails to take into account the existence of “schizophrenia spectrum disorders”, or the evidence that minor depression and depressive and cyclothymic personality disorder are genetically related to affective disorder. These findings suggest that there are separate phenotypic spectra related to the schizophrenic and the affective genotypes which are orthogonal to the phenomenological continuum that exists between the two disorders.

Given this evidence for independent genotypes, where does this leave the nosological status of schizoaffective disorder which occupies the intermediate position in the symptomatic continuum? One possibility is that it consists of both affective and schizophrenic types of illness. However, as Crow reminds us, the concept arose out of the failure