It might not be so strange that *The Revellers* (Aristophanes only picked up the second prize with *The Birds*) which is thought to have been even more bawdy—and possibly with more obvious allusions to drugs—has disappeared.

Carrying the thought further, it might be that 'lycanthropy' of the Middle Ages was in part due to post-drug delusional states. The transformation into an animal—a delusional insanity—is of course associated with Nebuchadnezzar, who is written up as a recovered case.

The issues and problems are extremely involved and go beyond the solanaceae. Werewolves were noted to have lost a limb at some time—the story is that the witch while in the form of a wolf was attacked and had a traumatic amputation. However, St. Anthony's fire is even more commonly associated with peripheral gangrene, associated with ergot by the Medical Faculty of Marburg as long ago as 1579 (Haggard). Midwives were of course often accused of witchcraft, and it would seem that the punishments associated with abortion were even more severe in earlier times.

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EXPERIENCES WITH THIOTHIXENE

Dear Sir,

I would like the opportunity to record my experiences with a new major tranquillizer known as thiothixene (Navane) with which I have recently conducted a clinical trial in the treatment of schizophrenics. Published reports from outside the U.K. have shown this drug, which is a thioxanthene derivative, to have a pronounced antipsychotic action, and in addition a notable awakening or activating effect in schizophrenic patients, especially those characterized by apathy and withdrawal from their environment. In view of these advantages, it seemed worth while to undertake a further study.

The study involved 21 chronic schizophrenic male patients and one acute schizophrenic, also male. These patients received between 10 and 75 mg. per day of thiothixene, for periods of up to 12 weeks.

There was definite improvement in 9 of the 22 patients, 9 were unchanged, 3 deteriorated, and it was not possible to make an assessment of the final patient. These results are not striking at first glance, but should be interpreted in the light of the fact that this was a population of chronic, resistant, hospitalized patients who in many instances had failed to respond to currently available compounds.

The results were particularly interesting in that thiothixene appeared to have a stimulating effect in some patients and a reverse effect, with damping down of hallucinations and disturbed behaviour, in others. In the former group the stimulating effect was most marked for improvement in conversational ability, one patient not having uttered a word for many years until he was treated with thiothixene. It was also interesting to note that in another patient who was previously very disturbed, the damping effect of thiothixene persisted after treatment was stopped.

The three patients who deteriorated became hyper-active, but all three were receiving relatively high doses of the compound. For most patients the optimal dose was 20 to 30 mg. daily, and increasing the dose above 40 mg. a day did not produce an improved response.

Side-effects were largely extra-pyramidal in nature, and there were some cases of sweating and dry mouth. Sedation did not occur in this small series of patients. Liver function tests during treatment became abnormal in two patients, but it is difficult to comment on the significance of this; approximately 1,000 patients have been treated with thiothixene in trials carried out throughout the world, and the incidence of liver function test abnormalities that could be related to drug treatment has been very low, under 2 per cent.

In conclusion therefore, from my limited clinical experience, thiothixene would appear to be a potentially valuable addition to the range of major tranquillizers.

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GILLES DE LA TOURETTE'S SYNDROME

Dear Sir,

In my recent paper in your *Journal* (Fernando, 1967) reviewing this syndrome, three previous reports

were overlooked. Of these, two cases (Ellison, 1964; Healey, 1965) should be regarded as "proven", but one report (Balducci and Frascella, 1962) is lacking in information on the age of onset of the condition. Two articles relating to the syndrome have been published since my review was submitted. At least two of the three cases reported by Clark (1966) and two of the four cases in an article by Connell *et al.* (1967) showed the main features of the syndrome.

A follow-up of the patient C.H. reported by me is of interest. After a course of haloperidol at a dosage of 7·5 gm. daily for two months, the patient reduced the dosage to 3 mg. daily while continuing to maintain this improved state for four months (August, 1967).

Two further unpublished cases of the syndrome have come to my notice.

Case C.S. A 12-year-old girl was admitted to the paediatric department of a general hospital in November 1956. She was the second eldest and only girl in a family of three. Her father was away in the forces at the time of her birth and showed little interest in the children on his return home. The mother is described as "neurotic". The parents separated when the patient was 2 years of age, and the children lived with the mother and a succession of "stepfathers". There was no family history of tics.

The patient was enuretic until she was 6 years old. She had temper tantrums in childhood and became a life-long nail biter. At the age of 3 she started to show abnormal movements and mannerisms of her limbs. When seen by a psychiatrist at the age of 7 because of worsening of her symptoms, she was found to exhibit grimacing, gestures, and mannerisms. She improved rapidly, but relapsed five years later with the original symptoms, together with shaking of her head and shouting "look". She became withdrawn and asocial, and when symptoms worsened she was admitted to hospital.

Routine physical investigations, including cerebrospinal fluid examination, were negative. She was diagnosed as suffering from Gilles de la Tourette's disease. Her condition improved while in hospital but treatment in a Psychiatric Unit was rejected by her mother.

Improvement continued after the patient returned home, and her mother claimed that she was "back to normal" two years later. At the age of 17 she relapsed with grimacing, violent head shaking and the shouting of obscenities. Out-patient treatment with chlorpromazine was ineffective, and one year later she was admitted to a Psychiatric Unit. She was found to be of below average intelligence on the Mill Hill Verbal and Performance Scales. She was treated with psychotherapy and her symptoms regressed over seven weeks.

Her condition worsened on returning home to her mother, but improved again over six months with out-patient psychotherapy. Symptoms worsened again after her mother remarried, and once again following her own marriage at 20. A year later she sought treatment for frigidity with non-consummation of her marriage, and she was then observed to exhibit motor tics and coprolalia.

Soon afterwards she moved to Kent and she had a normal baby in April 1966. The effect of pregnancy on her tics is not known. The tics worsened after delivery, and she sought psychiatric advice five months later. Recent information (August 1967) indicates that drug therapy with imipramine and diazepam has been ineffective in alleviating her condition.

Case P.P. An 18-year-old single girl was admitted to Runwell Hospital in October, 1959. She gave a four-year history of abnormal movements of her upper limbs and neck, together with loud grunting, barking and shrieking noises. There was no abnormality on physical examination. EEG revealed "an isolated short frontal sharp wave" on two of the three recordings taken. A diagnosis of "myoclonus" was made. Medication with mephenesin, phenytoin sodium, troxidone and amylobarbitone sodium were ineffective, and she was discharged one month after admission. A family and personal history was not recorded.

Recent inquiry (September, 1967) reveals that the patient has improved considerably over the past eight years, but continues to suffer from tics. She is married with three normal children and seems reasonably well adjusted socially. Her mother reports that the patient's tics were worse during the first trimester of her first pregnancy, which aborted spontaneously at five months. She has subsequently had three normal full term pregnancies. The tics became worse during the first half of one of these, but were unchanged during the others.

The cases referred to in this letter bring the total number of "proven" cases found in the English language literature to 73. The alteration in symptoms during pregnancy in case P.P. is similar to that in a case described by Creak and Guttman (1935). The papers by Healey (1965) and Connell *et al.* (1967) support my own experience of the useulness of haloperidol in treatment; but the case described by Healey illustrates the need for a comprehensive therapeutic approach.

I am grateful to Dr. J. K. Butler for drawing my attention to two studies previously overlooked; to Dr.

A. Robin and Dr. R. Ström-Olsen for suggesting and allowing me to report the cases C.S. and P.P.; and to Professor Desmond Pond for reading the manuscript.

S. J. M. Fernando.

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Dear Sir,

Dr. Fernando states (*Journal*, June 1967, p. 614) that Gilles de la Tourette's Syndrome has not been reported outside Europe and America. Two cases have been reported in the *Indian Journal of Psychiatry*, one in 1962 (Vol. 4, p. 187) and the other in 1966 (Vol. 8, p. 228). During a discussion on one of the cases, several colleagues reported that they had seen this disease in different parts of India.

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HOMOSEXUALITY

Dear Sir,

Dr. Clifford Allen (*Journal*, October 1967, p. 1158) has kindly shown where many people would disagree with the theory of a sex control centre, and I would like to use his points to explain the misunderstanding that has arisen from my brief letter.

1. The theory depends on an endocrine lack only at the time the suggested centre is maturing, probably around birth. The testable point of the theory only requires a satisfactory test for anti-androgen protein in mothers near term. This could be used in primigravidae and multiparae to see if there is a variation in titres and if this is dependent on the sex of the infant.

2. I feel the physique of the homosexual is not a guide to the individual's central nervous system at the stage medicine is now.

3. I have insufficient data to agree that some cases of homosexuality are "cured" by psychotherapy, and if the theory is correct prevention should be easier than cure (using techniques similar to that in Rhesus-negative mothers with Rh positive infants.)

4. I agree conditioning is a factor in the behaviour of mothers' favourite sons and also that in an excessively feminine environment unusual behaviour can occur in a male.

5. This final point makes the difficult division of effect of hormone in the *adult* and the direction depending on the psyche. I agree the adult responds to hormones by activity, but the direction is a result of hormone levels at a "critical period" when the sex control centre is maturing, possibly near the time of the person's birth.

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KRAEPELIN AND HIS APPROACH TO NOSOLOGY

Dear Sir,

The point raised by Professor Fish in his review, (*Journal*, November 1967, p. 1321) which relates to what I wrote about Kraepelin's nosology, seems important from an historical point of view, and also for the understanding of present day diagnostics.

Perhaps the best way to show Kraepelin's mode of thought and his approach to nosology is to let him speak for himself. (Kraepelin, E., (1913) 8th ed., Vol. 2, p. 939) "Whether dementia praecox as circumscribed here is a single disease entity can at present not be decided . . . I always had reservations about including the paranoid forms into dementia praecox. . . . The question (of inclusion) can only be decided on the basis of the entire course of the illness, during which those signs or symptoms will come more and more to the fore which are essential characteristics of the illness, rather than the unessential ones which will tend to move into the background though they may at times be more conspicuous than the former.