MEDICAL MEMORANDA

Persistent Tardive Dyskinesia

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In the past 20 years phenothiazines have been held responsible for side effects suggesting pharmacological interference with the extrapyramidal system. A case of the "irreversible" syndrome of persistent tardive dyskinesia attributed to long-term intake of chlorpromazine is described below. Despite the hitherto poor prognosis of this condition a trial of therapy with thiopropazate dihydrochloride (Dartalan) produced remarkable improvement.

Case Report

The patient, a 73-year-old housewife, had become progressively more unsteady for two years. In October 1970 she fell at home, fracturing the neck of her left femur. An Austin Moore prosthesis was fitted. She was transferred to Wakehurst House in early December for rehabilitation.

On examination she was found to be alert and co-operative. Her skin showed slight yellow pigmentation. When at rest she seemed unable to remain still. Involuntary movement particularly involved the right side, and the pattern varied from fidgeting to frank choreiform movement. She grimaced constantly, had trismus, and a combination of snorting and grunting gave a false impression of dyspnoea. Her arched back was occasionally lifted from the bed. The movements increased with emotion and disappeared when she was asleep. Her memory was good (apart from conveniently forgetting mental hospital admission) and she was well orientated. She had no complaints and denied any abnormal movements. Systemic examination showed no other abnormality.

Her daughter disclosed that the patient had been under psychiatric hospital care twice, in 1956 and 1962. On the last admission she had been diagnosed as suffering from paraphrenia with depression. Following electric convulsion therapy she was discharged on chlorpromazine 25 mg thrice daily, a dose she had taken faithfully until the present admission, when treatment was discontinued. There was no family history of abnormal movements or mental disease.

Results of investigations were negative apart from E.E.G. appearances of mild generalized abnormality maximal anteriorly.

Treatment with thiopropazate 30 mg daily was started and abnormal movements were much reduced. The dose was increased to 60 mg in an attempt to correct the persistent movements of the right foot, but at this level, despite assertions to the contrary (Roxburgh, 1970), severe Parkinsonism developed. Happily, when the dose was reduced to 30 mg again the abnormal movement was much reduced and activity was greatly restored. When discharged on 18 January 1971 she was able to climb stairs unaided.

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Comment

The development of the "reversible" syndromes of akathisia, acute dystonia, and Parkinsonism was clearly related to the phenothiazines, as evidenced by their occurrence within a relatively short time of starting the drugs, by their high incidence with large doses, and by their total reversibility after drug withdrawal. While in some patients such side effects are no more than unpleasant, they may severely incapacitate more elderly patients. Adams (1971) mentioned the possibility of delayed recovery from stroke if such side effects are overlooked.

Since the mid-1950s many references have been made to an "irreversible" syndrome of persistent dyskinesia attributed to phenothiazine ingestion (Schönecker, 1957; Sigwald *et al.*, 1959; Crane, 1968; Lader, 1970). Early reports were criticized (Kline, 1968) on the grounds that patients with brain damage had been included and that they had not been given time to clear the drug. It was difficult to prove the relation of the syndrome to the use of phenothiazines because the small number of early cases made statistical analysis difficult and because the usual cause-and-effect relationships were missing. In distinction from the reversible syndromes, in dyskinesia onset is usually delayed for months or years (or even until after the drug is discontinued), the incidence is probably not related to dosage, and withdrawal of the drug does not lead to reversal of the symptoms. On the contrary, signs are sometimes intensified. This and the onset of dyskinesia when phenothiazine therapy is reinstated after a break strongly suggest at least a partial aetiological relationship, further supported by the apparent absence of the syndrome before the introduction of phenothiazines, the increasing rate of new cases, and the knowledge that psychotic patients not treated with these drugs, including schizophrenics who have grossly deteriorated, apparently do not develop dyskinesia.

Thiopropazate hydrochloride was stated to be effective in suppressing the involuntary movements of Huntington's chorea 10 years ago (Bruyn 1962), and Prinsley (1964) subsequently recommended its use in the treatment of hemiballismus, but it was not until 1970, in spite of the failure of other attempted therapy, that it was applied to the treatment of the not dissimilar condition of persistent dyskinesia (Roxburgh, 1970).

Since thiopropazate contains a piperazine side chain it might be considered as irrational to use it in the treatment of dyskinesia as to treat morphine addicts with heroin. However, it works, as the case history shows, though, as Roxburgh stated, its efficacy will need further trials and follow-up of treated cases.

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References

- Adams, G. F. (1971). *British Medical Journal*, 1, 91.
- Bruyn, G. W. (1962). *Psychiatria, Neurologia, Neurochirurgia*, 65, 430.
- Crane, G. E., (1968). *American Journal of Psychiatry*, 124, Suppl., p. 40.
- Kline, N. S. (1968). *American Journal of Psychiatry*, 124, Suppl., p. 48.
- Lader, M. H. (1970). *Journal of the Royal College of Physicians of London*, 1, 87.
- Prinsley, D. W. (1964). Lecture to British Geriatrics Society. Unpublished.
- Roxburgh, P. A. (1970). *British Journal of Psychiatry*, 116, 277.
- Schönecker, M. (1957). *Nervenarzt*, 28, 35.
- Sigwald, J., *et al.* (1959). *Revue Neurologique*, 100, 751.