OBSESSIVE-COMPULSIVE NEUROSIS FOLLOWING 
ISONIAZID THERAPY

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Introduction

Pulmonary tuberculosis is a chronic disease with its psycho-social impact on patients behaviour. Varma (1974) found depression among tuberculous patients. Purohit et al. (1978) and Mathai et al. (1981) also reported depression among tuberculous patients and related it to the duration of illness, and the degree of incapacitation.

Apart from the illness per se, the anti-TB drugs are also known to cause wide ranging psychiatric disorders. Isoniazid, ethionamide and cycloserine are known to cause psychiatric side-effects (Paterson, 1980). Psychotic reactions were frequently reported and were attributed commonly to isoniazid (Pleasure, H, 1954; Wiedorn and Erwin 1954). The psychotic manifestations were those of depressive, manic and paranoid psychoses (Yoshikawa and Fujita, 1982). Neurotic cases were those of anxiety, depression and hysteria. However, no report of obsessional symptoms due to isoniazid is noticed in the available literature.

Case Report

A 30 year old male farm labourer was brought to the Chest Hospital on the advice of the District T.B. Centre for the treatment of pulmonary tuberculosis. His sputum was positive for acid fast bacillus on direct smear and the chest radiograph has shown bilateral upper zone infiltrates. The patient was started on a regimen containing isoniazid, 300 mg/od, streptomycin 0.75 gm/IM/od, and thiacetazone 150 mg/od. He also received tablets of B-complex vitamin-one daily. Due to physical complications the patient was forced to stay in hospital for 16 months.

After a duration of 14 months, the patient was noticed behaving abnormally by the fellow patients and the ward staff. The ward staff complained about his disturbed sleep, irritability and frequent, prolonged washing of clothes and crockery. He abhorred the ward boy touching his eating plates and tumblers. His morning bath became a 30-40 minute ritual and his repeated demands for frequent change of bed sheets was unacceptable to the ward staff. He was irritable with doctors and sisters and accused them of indifference.

A detailed interview by the psychiatrist revealed the patient's awareness of his newly-found obsession with cleanliness of the bed, dishes and clothes. He felt that others were less clean and that his dishes were contaminated by the ward boy's fingers. He had no history of obsessive traits in the personality. He gave no history of alcoholism, epilepsy, head injury, or past mental illness.

Since, isoniazid is the most likely drug to cause psychiatric side effects, it was deleted from the new regimen, which consisted of

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rifampicin 450 mg/od, pyrazinamide 750 mg/bd and ethambutol 800 mg/od.

On follow up, there was gradual relief from the above said psychiatric symptoms. Patient's anxiety and restlessness were markedly decreased at the end of one week. His night sleep was better at the end of two weeks. He was less irritable and demanding. He continued to spend greater time in cleaning activities but it was lesser than that at the time of onset of psychiatric symptoms. At the end of six weeks, he was cheerful, slept well, tolerated the fellow patients, and seldom complained about bedsheets and his bathing time was reduced to ten minutes.

The patient was restarted on isoniazid 300 mg/od to verify if the psychiatric symptoms were due to it and if not, to continue the drug since it is beneficial even in resistant cases. After two weeks of isoniazid addition, the patient began to complain of disturbed sleep, anxiety, restlessness and irritability. It was evident that isoniazid, probably, was responsible for the symptoms and it was stopped immediately lest the severe symptoms recur.

Discussion

Isoniazid is well-known for its psychiatric side-effects. The Majority of the previous studies (Weidorn and Erwin 1954, Sharma 1979; Gupta 1981) have reported the occurrence of psychotic reactions following chemotherapy for tuberculosis with isoniazid regimens. Past psychiatric morbidity was emphasised in the studies of Weidorn and Erwin, (1954). In the present patient, there is no past history of psychiatric morbidity. Many psychological illnesses and stress factors have been known to precipitate obsessive behaviour (Grimshaw, 1964). However, there have not been reports of obsessive compulsive symptoms being related to isoniazid.

References

GRIMSHAW, L. (1964) Obsessional disorder and psychological illness. Jour Neurol., Neurosurg. and Psychiat., 27, 229.

GUPTA, P. K., SHARMA, K. S., JAIN, N. K., MATHUR, B. B., GUPTA, M. L., RAJPAL, A. S. (1981) INH-induced toxic psychosis - a report of 8 cases. Ind. Jour. Tuberc., 28, 4, 212.

MATHAI, P. J., RAVINDRAN; P. JOSHI, P. and SUNDARAM P. (1981) Psychiatric morbidity in pulm tuberculosis - a clinical study Ind. Jour. Psychiat., 23(1), 66.

PETEERSON, G. C. (1975) in “Comprehensive Text Book of Psychiatry”, Vol.1 1116, (Eds. Freedman AM Kaplan, H. I., and Sadock, B. J.) Baltimore : Williams and Wilkins.

PLEASURE, H. (1954). Psychiatric and neurological side effects of isoniazid and proniazid, A. M. A. Arch., Neu. Psychiat., 72, 313.

PUROHIT, D. R., PUROHIT, S. D. and DHA-RIWAL, M. L. (1978) Incidence of depression in hospitalized TB patients. Ind. Jour. Tuberc., 25, 3, 147.

SHARMA, G. S., GUPTA, P. K., JAIN, N. K., SHANKAR, A. and NANA WATI, V. (1979). Toxic Psychosis to isoniazid and ethionamide in a patient with pulmonary tuberculosis. Tuberde, 80, 171.

VARMA, L. P. (1974) Depression in pulmonary tuberculosis. J. clinical Psychol, 2, 49.

WEIDORN, W. S. and ERWIN, F. (1954) Schizophrenic-like psychotic reactions with administration of isoniazid. A.M.A. Arch. Neur. Psychiat., 72, 321.

YOSHIKAWA, T. R. and FUJITA, N. K. (1982) Antituberculous drugs. Med. Clin. North. Amer., 66(1), 209.