Indian J. Psychiat. (1981), 23(1), 66—68

PSYCHIATRIC MORBIDITY IN PULMONARY TUBERCULOSIS—A CLINICAL STUDY

P. JOHN MATHAI[1] MBBS, DPM, MCAI, FICA.
P. RAVINDRAN[2] MD, DTCD, FCCP, FCAI.
P. JOSHI[3], MD, MCCP, FCAI.
P. SUNDARAM[4], MD, FCAI, NCCP.

SUMMARY

The prevalence of psychiatric morbidity in patients with pulmonary tuberculosis is significantly high. Depressive Neurosis is the commonest among them. The psychiatric morbidity is related to the duration of illness, the degree of incapacitation and the knowledge of sputum AFB positive status. More attention has to be paid to the psychiatric manifestations in chronic illnesses like tuberculosis in order to alleviate the mental sufferings of these patients.

To be afflicted with pulmonary tuberculosis is a unique and painful experience in the biopsycho-social history of an individual. The emergent stress contributes to psychiatric morbidity.

Very little work has been done in this area ; the psycho-social aspects of pulmonary tuberculosis have been studied by a few workers (Moudgil and Prasad, 1972 ; Dubey, 1975) and the syndrome of depression in this disease by some others (Varma, 1974; Purohit *et al.*, 1978). We studied the prevalence and nature of psychiatric morbidity in patients with pulmonary tuberculosis in an attempt to see how these are related to the various aspects of the illness.

MATERIAL AND METHOD

Seventy inpatients with pulmonary tuberuclosis from the sanatorium for chest diseases, Trivandrum, formed the study group. Seventy inpatients with non-tuberculous, Bronchiectasis, matched for age, sex, marital status, duration of illness and severity of incapacitation formed the control group. None of the patients had ever undergone surgery. All patients had been on medication and follow up for at least 6 months without any untoward reactions to ensure that the symptom produced were not due to anti tuberculous medication *per se*. The patients were subjected to a thorough physical examination to assess the severity of illness and disability, and to rule out CNS involvement. The severity of incapacitation was ranked by the physician into nil or mild and moderate to severe based on the ability to carry out the activities of daily living. Clinical evaluation was performed and diagnosis was arrived at as per ICD-9. The examining physician and the psychiatrist were not aware of each other's findings.

RESULTS

Twenty (28.87%) of the patients with tuberculosis and five (7.14%) of patients with nontuberculous bronchiectasis were found to be abnormal in psychiatric terms (Table I).

The diagnosis-wise breakup is given in Table II. The one psychotic patient (schizophrenia) listed had contracted tuberculosis during his admission in the mental hosopital and had then been shifted to the chest disease hospital.

[1]Head, Dept of Psychiatry, M.G.D.M., Hospital, Kangazha.
[2]Professor,
[3]Asstt. Professor
[4]Asstt. Professor
Department of Tuberculosis and Respiratory Medicine, Medical College, Trivandrum.

TABLE I—*Prevalence of psychiatric illness in patients with pulmonary tuberculosis*

	Pts. with P. T.	Pts. with Bronchiectasis
No. of patients	70	70
Patients with psychiatric illness	20	5
$X^2=10.96$ d. f.=1	$p<0.001$	

TABLE II—*Diagnosis-wise breakup of psychiatric illness in patients with pulmonary tuberculosis*

Diagnostic categoary	Pts. with P. T. (N=20)	Pts. with Bronchiectasis (N=20)
Depressive Neurosis	11	4
Anxiety Neurosis	5	1
Hysterial Neurosis	1	0
Dependence an Alcohol	2	0
Schizophrenia	1	0

The psychiatric abnormalities were not related to the age, sex, marital status, rural/urban background, financial and educational status. It was found to be significantly related to the knowledge of sputum AFB status, the severity of incapacitation and duration of illness. (Table-III).

TABLE III—*Characteristics of patients with pulmonary tuberculosis and psychiatric illness*

Characterestics	Pts. with Psychiat illness (N=20)	Normals (N=50)	Remarks
Mean Age (in yrs.)	34.6±4.8	32.9±7.7	..
Sex			
Male	12	31	
Female	8	19	..
	$X^2=0.01$, d. f.=1, N. S.		
Martial status			
Married	9	24	..
Single	11	26	..
	$X^2=0.20$, d .f.=1, N. S.		
Domicile			
Rural	13	30	$X^2=0.15$
Urban	7	20	df=1
	$X^2=0.15$, d. f.=1, N. S.		p=NS
Education			
Primary or less	12	33	$X^2=0.23$
Secondary or more	8	17	df=1
	$X^2=0.23$, d. f.=1, N. S.		p=NS
Financial status (in Rs. per annum)			
Below 2400	9	18	$X^2=0.23$
2400-6000	7	18	df=2
6000 PA	4	14	p=NS
	$X^2=0.23$, d. f.=2, N.S.		
Mean Duration of illness (in yrs.)	10.6±2.7	8.8±2.2	
Severity of incapacitation.			
Mild	1	18	..
Moderate	7	17	..
Severe	12	15	..
	$X^2=7.47$, d. f.=2, $p<0.05$.		
Sputum AFB status			
AFB+	14	22	..
AFB—	6	28	..
	$X^2=3.86$, d. f.=1, $p<0.05$		

DISCUSSION

Symptomatic psychosis is rarely found in pulmonary tuberculosis and if seen indicates either a secondary infection or spread to the brain (Slater and Roth, 1974) or a psychosis induced by anti-tuberculous medication. The psychiatric morbidity of patients described are considered to be psychogenic reactions of neurotically predisposed people to their special situation and awareness that they are suffering from a severe and dangerous illness (Slater and Roth, 1974).

Varma (1974) found depression to be a common manifestation associated with the chronic illness like tuberculosis. Purohit *et al.* (1978) found a high incidence of depression in hospitalised patients with pulmonary tuberculosis and this was related to the duration and severity of the illness. Of the twenty with psychiatric abnormality, eleven were suffering from Depressive Neurosis, which is comparable to the incidence reported by other workers (Varma 1974; Purohit *et al.*, 1978).

A reaction to the stressful situation brought about by the illness—set back in occupation, social isolation with damaged status, lowered self esteem, fear of spreading the illness to others, helplessness brought out by incapacitation due to chronic illness, the social stigma attached to this illness—are the plausible causes that one can postulate for the depression and anxiety. Dependence on alcohol and other drugs could also be the response to anxiety and depression.

AFB positive sputum status would impose greater restrictions on a person's inter-personal relationships and invoke a dread of infecting others. Prolonged duration of illness and greater incapacitation, would imply greater helplessness and hence greater depression.

Considering the high incidence of psychiatric abnormality the nature of which to a large extent permits useful psychiatric intervention, more attention has to be paid to the psychiatric manifestations of chronic medical illnesses to alleviate the mental sufferings of these patients.

ACKNOWLEDGEMENT

We are grateful to Dr. G. Sampath for the great help rendered to us in the preparation of the manuscript.

REFERENCES

Dubey, B. L. (1975). Psychosocial survey of TB patients. Ind. J. Tuber., 22, 2, 83.

Moudgil, A. C. and Prasad, D. (1972). Psychosocial survey of TB patients of a sanatorium. Ind. J. Tuber., 19, 34.

Purohit, D. R., Purohit, S. D. and Dhariwal, M. L. (1978). Incidence of depression in hospitalised TB patients. Ind. J. Tuber., 25, 3, 147.

Slater, E. and Roth, M. (1974). Clinical Psychiatry. 3rd Edn., London. Bailliere Tindall & Cassell.

Varma, L. P. (1974). Depression in pulmonory tuberculosis. J. of Clinical Psychol., 2, 49.