PSYCHIATRIC MORBIDITY IN PULMONARY TUBERCULOSIS—A CLINICAL STUDY

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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 biopsychosocial 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 tuberculosis 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 hospital and had then been shifted to the chest disease hospital.
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 category          | 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                               |

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

| Characteristics | Pts. with Psychiat (N=50) | Pts. with Normal (N=20) | Remarks |
|-----------------|---------------------------|------------------------|---------|
| Mean Age        | 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
- Urban: 7/20

$X^2=0.15$, d. f. = 1, N. S., $p=NS$

Education
- Primary or less: 12/33
- Secondary or more: 8/17

$X^2=0.23$, d. f. = 1, N. S., $p=NS$

Financial status (in Rs. per annum)
- Below 2400: 9/18
- 2400-6000: 7/18
- 6000 PA or more: 4/14

Mean Duration of illness (in yrs.)
- Mean: 10.6±2.7
- Range: 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.

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