



STUDY OF CO-MORBID DEPRESSION IN PATIENTS WITH PULMONARY TUBERCULOSIS : A HOSPITAL BASED STUDY

Psychiatry

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ABSTRACT

Background: Tuberculosis is a chronic infectious disease caused by Mycobacterium tuberculosis. Depression has been known to be widely associated with chronic systemic conditions. This common psychiatric co- morbidity is often neglected in medical set up which increases the healthcare burden and adversely affects the treatment outcome of patients suffering from tuberculosis.

Material and methods: 100 consecutive patients suffering from pulmonary tuberculosis in intensive phase of treatment admitted at RIMS, Ranchi were assessed for depression using clinical symptoms as per International Classification Of Diseases -10(ICD-10) and the severity evaluated using Beck's Depression Inventory (BDI) after taking their informed consent. Statistical evaluation was done using SPSS software.

Results: Depression was found in 43% of the patients suffering from pulmonary tuberculosis. Moderate level of depression was reported among the patients in highest fraction 55.8%.

Conclusion: The relation between tuberculosis and Depression is bidirectional. The chronicity of TB is likely to be associated with psychological problems like depression which adversely affect the prognosis of TB in the affected patients.

KEYWORDS

INTRODUCTION

Tuberculosis (TB) remains a leading cause of morbidity and mortality throughout the world. India produces maximum new cases of TB each year than any other country in the world and accounts for one-fourth of global TB burden. Annual risk of TB infection in northern part of India is 1.9%.¹ The stigma attached to tuberculosis makes the likelihood of psychiatric problems like depression all the more likely among these patients. India accounts for nearly one-third of the global burden of tuberculosis.¹ The lifetime prevalence of mood disorder in patients with chronic disease is 8.9% to 12.9%, with a 6-month prevalence of 5.8% to 9.4%.²

The prevalence of tuberculosis is more common in India because of poor sanitation and hygiene, overcrowding, low education level, malnutrition. It can result in unemployment, prolonged hospitalization resulting in abstinence from job, isolation, perception of being infected, significant weight loss, decreased libido, hopelessness, resulting in decreased social interaction.³

Purohit *et al.* reported approximately 54% of patients suffering from depression in hospitalized tuberculosis patients. Depression was found to be related with the severity and duration of tuberculosis.⁴ Bhatia *et al.* studied the psychiatric pattern in tuberculosis patients, observed that 78% of patients had co-morbid psychiatric problems.⁵ A study from Bangladesh reported 40 % prevalence of depression in patients suffering from tuberculosis.⁶ In a study from Himachal Pradesh, India 49% patients with tuberculosis were found to be suffering from depression.⁷ In a study from Nigeria 45% patients with tuberculosis were suffering from depression, factors related to which were elderly age, extensive disease, unmarried status and longer duration of illness.⁸

Depression as a co- morbidity would affect the treatment outcome of patients with tuberculosis. So a comprehensive assessment of depression is essential to prevent morbidity and mortality associated with this chronic illness which is the aim of the present study.

MATERIAL AND METHODS

The study was done at RIMS, Ranchi and approved by the ethical committee of RIMS. 100 consecutive patients suffering from tuberculosis and admitted at RIMS were assessed after taking their written informed consent for depression based on ICD -10 criteria and severity assessed using BDI.

Inclusion criteria

- Giving written informed consent
- Intensive phase of treatment
- Age 18-60 years

Exclusion criteria

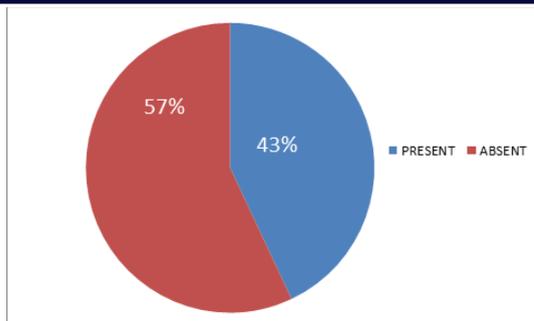
- Not giving written informed consent
- Suffering from other medical co- morbidities
- Age >60 years
- Extremely ill to be assessed by interview

The Beck Depression Inventory (BDI) is questionnaire to measure the intensity, severity, and depth of depression. It is composed of 21 questions with each item rated on a score of 0-3. Maximum score is 63. Clinically significant level of depression was defined by score of BDI: 0-14: minimal, 14-20: mild, 21-29: moderate, >29: severe Depression.⁹ Statistical analysis was done using SPSS software.

RESULTS

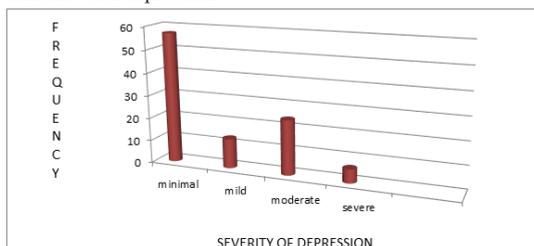
The frequency and percentages of various socio-demographic variables were as shown in table 1.

SOCIODEMOGRAPHIC VARIABLES	FREQUENCY(N)
1. AGE GROUP	
18-40 YEARS	65
41-60 YEARS	35
2. SEX	
MALE	77
FEMALE	23
3. EMPLOYMENT STATUS	
EMPLOYED	58
UNEMPLOYED	42
4. RESIDENCE	
URBAN	37
RURAL	63
5. MARITAL STATUS	
SINGLE	24
MARRIED	65
WIDOWED	10
DIVORCED	1
6. TYPE OF FAMILY	
NUCLEAR	39
JOINT	61



GRAPH 1: SHOWING % OF PATIENTS SUFFERING FROM DEPRESSION

43% of patients suffering from tuberculosis reported as having depression in interview based on ICD-10 criteria by Psychiatrist (Graph 1). The severity of depression using BDI was found to be as shown in the graph below (Graph 2). Maximum patients reported moderate level of depression



DISCUSSION

Depression was reported among 43% patients suffering from pulmonary tuberculosis. Of these 43%, maximum reported moderate levels of depression i.e. 55.81% while 30.2% reported mild depression and least 13.9% reported severe depression. Our findings are lower than that by Purohit *et al* while comparable to findings from Nigeria and another study from northern India. The above findings suggest high levels of co-morbid depression in patients with pulmonary tuberculosis. Factors associated with depression assessed in cross sectional interview were stigma of disease, long duration of treatment and financial problems.

CONCLUSION

With the government making diagnosis and treatment of TB free of cost, an attempt to evaluate the co-morbidities associated with it would help in rapid recovery of patient and ensure treatment adherence thereby reducing the healthcare burden on society.

LIMITATIONS

- Sample size
- Cross sectional nature of study

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