



Awareness Regarding Transmission and prevention of Tuberculosis in a Tertiary Care Center

Dr. Supriya Adiody¹, Jiji P Saji²

*Prof. & HOD, Dept. of Pulmonary Medicine., JMMC & RI, Thrissur -5.
Registered Pharmacist, Dubai.*

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ABSTRACT

A recent study was conducted in a tertiary care hospital to assess the disease awareness of the patients with regards to the transmission of Tuberculosis and its prevention. It was a prospective observational study. Patients with extrapulmonary tuberculosis (EPTB) were interviewed with a questionnaire and the data collected was analyzed using SPSS package. Most of the patients were aware that tuberculosis is caused by a bacterium. More than half of the patients knew that it could be transmitted during coughing. There were certain misconceptions like utensils and food being a route of transmission. Two thirds of the patients were aware about BCG Vaccination. Knowledge about transmission of the disease was average in our study. Health education may play an important role in addressing the various issues and stigma associated with tuberculosis

Keywords: Tuberculosis, BCG vaccination, PtB, EPTB.

I. INTRODUCTION

Tuberculosis is a major public health problem in our country. It is an infectious disease caused by the organism *Mycobacterium tuberculosis*. Almost one third of the world population is infected with or is at the risk of TB (1, 2). Tuberculosis though primarily affects the lungs, the so called pulmonary tuberculosis (PTB), it can involve any organ site of the body-extra pulmonary or EPTB. TB is the main cause of mortality due to a single factor infection (even more than AIDS, malaria, measles) (3). Though tuberculosis control programme has been in existence since the last 30 years or more, it has not made a measurable impact on the disease situation. PTB patients may have the symptoms of cough, chest pain or haemoptysis alerting them to seek medical aid. EPTB patients may have non-specific symptoms like malaise, weight loss often leading to incorrect or delayed diagnosis. Over the last several years, there has been an accelerated growth of private sector in health care needs. People also seek

medical aid from these sectors probably due to privacy and to avoid social stigma.

Many of the patients do not adhere to anti TB treatment due to various causes including psychological, sociological factors like age, education level and patient's own idea about the disease. Incorrect practices are probably more rampant in remote and backward areas inhabited by the poor with limited access to health care.

Objectives

The present study was conducted with the following objectives:

1. To assess the disease awareness of the patients regarding mode of transmission and etiology of the disease.
2. To assess their knowledge regarding prevention of the disease.

II. MATERIALS AND METHODS

This was a prospective, observational study conducted in a tertiary health care center. Sixty patients of EPTB diagnosed either clinically with radiological/histological criteria were included. A questionnaire containing variables such as age, sex, religion, mode of transmission, etiology and prevention was prepared as study tool and texted. Each interview lasted for 30 minutes. The collected data was entered in Microsoft Excel and transformed to SPSS statistical package for analysis. Z-test was applied for significance.

III. RESULTS

Of the 60 patients included in the study, 55% of them believed that cough was responsible for transmitting the disease.

27 Patients (61.66%) thought that the disease was caused by a bacterium whereas 8.33% believed that it was a viral disease.

28.33% of the study population believed that covering mouth and proper disposal of sputum would help in prevention of disease. 11.66% believed that BCG vaccine alone could prevent the disease.



SL.NO	PREVENTION METHODS	NUMBER OF PATIENTS (N=60)	PERCENTAGE (%)
1	Covering mouth and proper disposal of sputum	17	28.33%
2	BCG vaccine and clean environment	15	25.00%
3	clean environment and separate utensils & food	13	21.66%
4	Only BCG vaccine	7	11.66%
5	Only covering the mouth	6	10.00%
6	Stay separate	2	3.33%

Table: 1 - knowledge regarding prevention of disease.

36 of the patients (60%) were aware about BCG vaccination whereas 40% had not heard about BCG vaccine

Most of the patients believed that TB is a preventable disease. 28.33% (17) of them stated that covering the mouth and proper disposal of sputum would help prevent the disease. 25% of the patients cited that both BCG vaccination and clean environment would help in prevention.

IV. DISCUSSION

In our study, about 69% of the patients were aware that the disease is caused by a microorganism. 61.66% thought that it was a bacterium whereas 8.33% believed that it had a viral etiology. None of them thought it was due to evil eye as in Gameda et al study (4). Some patients had wrong misconceptions and probably these might affect timely reporting of these patients to the health care facility.

55% of the patients were aware that TB could be transmitted from one person to another during coughing, misconceptions like food and utensils as a route of transmission still existed in 21.66% of the group and this fact had been substantiated by other studies as well.

60% of our patients were aware about BCG vaccination. A similar study conducted in south Indian community, BCG as a vaccine for tuberculosis was known only to 15.6% individuals (5) and in another study at Delhi, it was reported as 9.8% (6).

Most patients were aware about TB- its mode of transmission and causative organism, more than two thirds were also aware about BCG vaccination.

In a study by Ehtisham Ahmad et al (7), BCG as a vaccine for tuberculosis was known only to 15.6% individuals. Though, 36 patients (60%) knew the use of this vaccine in our study, only 7 patients (11.6%) believed that BCG may have a main role in the prevention of disease. Only 2 (3.33%) patients stated that isolation was required for complete prevention.

In a study done by Subramaniam T et al (8) BCG vaccination was known only to 15.6% of the individuals and in another study by Madhu Vidhani et al (9) only 9% of the patients knew that tuberculosis can be prevented by BCG vaccine.

All enrolled patients were satisfied with the treatment provided. Most of them were aware that pulmonary tuberculosis could be transmitted from one person to another. Misconception regarding food and utensils as the mode of transmission still exist. Some of the patients may have incorrect knowledge about the cause such as curse, heredity etc. These wrong misconception may lead to delay in seeking medical aid.

Knowledge about various aspects of tuberculosis is important to curb it. The mass survey carried out by central TB Division, Ministry of Health, Government of India, reported poor level of awareness among disadvantaged section of the society (5). Tuberculosis carries with it a lot of social stigma and many of the patients try to hide the disease from their family or society.

V. CONCLUSION

In our study knowledge about transmission of the disease was average. Strict adherence to treatment and proper health education may play a vital role in addressing this deadly



disease.

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