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Research Article

Tuberculosis Knowledge and its Complications among the Patients in a Teaching Hospital

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Abstract

Tuberculosis (TB) is an infectious disease which is transmitted by air. This disease damages the lungs and other organs in the human body. It is one of the leading causes of morbidity and mortality despite the fact that it can be cured with adequate treatment. The entry of multidrug resistant tuberculosis (MDR-TB) or extensively drug resistant (XDR-TB) is biggest challenges in our effort to control the disease and drugs complications.. A cross-sectional study was conducted to assess TB related knowledge, its complications and control among the patients from the Pulmonology department of Owaisi Hospital and Research Center- HYD. The research shows that maximum number of patients [59%] was unsure about the severe complications of TB disease and their drugs whereas patients did not adhere to the treatment and discontinue it half-way, this become the prime reasons for the gap between treatment and control, thereby no adherence treatment could have severe consequences of diseases and might lead to death. Knowledge about pulmonary complication and duration of treatment has to be emphasized.

Keywords: Pulmonary Complication; Patient's Perception; Treatment; Prevention and Control

Introduction

After human immunodeficiency virus (HIV) Tuberculosis (TB) is one of the leading causes of the disease worldwide [1-3]. The Latest World Health Organization (WHO) Report shows that there were 9.0 Million new TB cases and 1.5 Million tuberculosis deaths, [6-10].The spread of the TB disease by Mycobacterium tuberculosis occurs by air in the form of sneeze, talk, cough, spit etc. transmission of the disease occurs only after continues exposure patients with active TB [11-13]. In some patients the sign and symptoms of the disease does not appear for many years and TB bacteria a remains dormant. The diseases get effect only if the immune system becomes weakened by Diabetes, HIV infection, Malignancy, Kidney disease, immunosuppressive agent [14-19].

Active or pulmonary tuberculosis (TB) can cause permanent lung damage when it is not diagnosed and treated early [12]. Untreated active disease can also spread to other organs of the body where it leads to serious or life-threatening complications. Complications of TB arise due to late detection, identification and irregular treatment. These complications can vary from mild to severe health problems that may also cause death [20-26]. Few complications of the disease are listed like permanent lung damage, Meningitis, bone and joint complications, cardiac problems and liver or renal inflammation. [28-32]

Due to Multidrug resistance, some of the TB programs were not successful. Drug resistance in MDR-TB or XDR-TB is a human-made problem. [33-35] Lack of awareness, incomplete or inappropriate treatment and bad quality of medicines has led to the present situation of TB prevalence [36-37]. The early detection and proper treatment of TB using combination of drug therapies

for 6-9 months can make the patient noninfectious and finally cure the disease [38-39]. However, in countries like India proper assessment of the TB has not been done. This study is done to assess the patient's perception on TB complication and drug regimen [40-44].

Method

A cross-sectional survey was done to assess TB-related knowledge, its complications, and control among the participants from the outpatient Pulmonology department of Owaisi Hospital and Research Center-HYD

Participants: The data collection is done with help of a questionnaire which contains two different parts that is 1) Knowledge on TB disease, 2) Complication and control of TB. The study includes 1006 patients from the out-patients from Pulmonology department which were previously diagnosed for tuberculosis. The patient's response in the survey study was assessed on perception of TB disease, its complications and control.

Discussion

The study reveals significant variations in the genders male and female. Male are better informed the causes, transmission of TB, its complication and Control. Maximum patients were unsure about the sever complication of TB and drugs. The result of this study also indicates that intolerance of Anti-tuberculosis drugs due to side effect is still a serious problem in patients. The incidence rate of hepatic dysfunction was found to be the most frequent side effect. Whereas minor ocular and gastrointestinal complications were reported, Rifampicin and ionize were the most causative agent of heptotoxicity. Of all the participants 62% of the patients stated that they didn't have idea of properly maintain the medical records for their treatment of the disease, This is the main root cause, where TB not under control

Results

Response	Male (N= 744)		Female (N= 262)		Total Participants N=1006	
	Freq	%	Freq	%	Freq	%
yes	470	-63%	121	-46%	591	-59%
no	274	-37%	141	-54%	415	-41%

Table 1: Do you know, Tb disease is one of the leading cause of death.

Response	Male (N= 744)		Female (N= 262)		Total Participants N=1006	
	(N= 744)		(N= 262)		N=1006	
yes	378	-51%	72	-27%	454	-45%
no	182	-24%	83	-32%	262	-26%
Unsure	184	-25%	107	-41%	290	-29%

Table 2: Is Tuberculosis contagious?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)		N=1006	
YES	228	-31%	69	-26%	297	-30%
NO	98	-13%	14	-6%	112	-11%
UNSURE	418	-56%	179	-68%	597	-59%

Table 3: Do you know that TB can cause severe complications?

Response	Male(N=744)		Female(N=262)		Total Participants N=1006	
	Freq	%	Freq	%	Freq	%
Yes	528	-71%	182	-69%	710	-70%
No	130	-17%	59	-23%	189	-19%
Unsure	86	-12%	21	-8%	107	-11%

Table: 4: Is medication important in controlling TB?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)			
	Freq	%	Freq	%	Freq	%
Yes	88	-12%	29	-11%	109	-11%
No	362	-49%	159	-61%	529	-52%
Unsure	294	-40%	74	-28%	368	-37%

Table 5: Do you know the side effects caused by drug used in treatment of TB?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)			
	Freq	%	Freq	%	Freq	%
Sever Consequences of disease	469	-63%	176	-67%	645	-64%
Relapse of disease	162	-22%	57	-22%	219	-22%
Don't Know	113	-15%	29	-11%	142	-14%

Table 6: What could be the consequences of incomplete or inappropriate treatment?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)			
	Freq	%	Freq	%	Freq	%
yes	252	-34%	133	-51%	385	-38%
no	492	-66%	129	-49%	621	-62%

Table 7: Do you keep a record of your medication?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)		(N=1006)	
	Freq	%	Freq	%	Freq	%
Yes	65	-9%	18	-7%	83	-8%
No	476	-64%	187	-71%	663	-66%
Unsure	203	-27%	57	-22%	260	-26%

Table 8: Do you know what are Multidrug resistance tuberculosis (MDR-TB)?

Response	Male		Female		Total Participants	
	(N= 744)		(N= 262)		(N=1006)	
	Freq	%	Freq	%	Freq	%
Yes	350	-48%	72	-29%	426	-42%
No	390	-52%	190	-71%	580	-58%

Table 9: After getting a positive TB test, have you completed given treatment?

- The above statistical analysis shows that, maximum (59%) were unsure that the severe complication of Tuberculosis. Participants both (male & female) were unaware about treatment and side effects of the given medicine.
- 90% of total participants scared when they had cough with blood and sought immediate treatment. 45% of total participants did not adhere to the treatment and discontinue it half way. This becomes the prime reason for the gap between the treatment and its adherence.
- 58% of total participants' belief that TB is a short lived infectious disease and curable. In Contrast to this 28% total of participant had opposite-ve thought; they told that TB is not at

all curable completely.

- 30% of total participant thought that 1 or 2 months treatment are sufficient to control TB disease.

Conclusion

According to this study analysis, it was clear that patients do not have clear knowledge regarding the tuberculosis and its complications with respective to drug and disease. Perfect management of active tuberculosis treatment includes the initiation and the completion of anti-tuberculosis therapy with minimal complication and reduce side effect of anti-tuberculosis drug by closer monitoring of Adverse Drug Reaction (ADR). MDR-TB can be diminished by identifying the drug resistance and by treating the disease with the second line anti-tuberculosis drugs in proper regiment in relapse cases. Thereby inappropriate or incomplete treatment could lead to severe consequences and may leads to death of the patient. Knowledge about pulmonary complication and duration of treatment has to be focused.

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