Original Research Article

TO PIN POINT THE FLAWS IN TUBERCULOSIS TREATMENT THAT LEADS TO MDR-TB IN NISHTAR HOSPITAL MULTAN; PAKISTAN

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ABSTRACT:

Tuberculosis is one of the major problems in developing countries. Can be treated but due to poor management of MDR-TB and multi-emerging now days. Nishtar Hospital Multan is one of the largest hospitals in South Asia. The purpose of this study was to point out the flaws in the case of treatment of tuberculosis, directly observed therapy and patient compliance, and tuberculosis. The study was conducted by researchers who have been associated with doctors and participants in the search, and when he visited the behavior in the hospital. And summarizes the data through the use of statistical data. 275 total cases that visited the hospital and participated in the study. Studies have shown that TB treatment under the direct supervision does not work, because it is defined by the World Health Organization. Significant improvements are possible in tuberculosis directly observed therapy in Nishtar Hospital. Tuberculosis level operating directly observed treatment, patient education, and preventive measures and providing skilled workers, and improve the process of patient care.

Keywords: Tuberculosis control and direct treatment of TB MDR. Patient compliance. NISHTER Hospital Multan. Pakistan **.**

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INTRODUCTION:

Tuberculosis is known as multidrug-resistant and "at least two of TB infection is resistant to first-line drugs such as isoniazid and rifampicin" (1). Tuberculosis is the leading cause of death in the world, and the second is only for AID / AIDS (2.3), in 2006, an estimated 50 million people around the world to develop resistance (MDR) tuberculosis multidrug (4,5). Pakistan is one of the ten national burden of disease, which is due to several reasons, such as lack of knowledge, and the patient does not comply and poverty (7). Changes in tuberculosis MDR-from 2.3% to worrying disease who are treated by individuals 17.9% (6). One study showed that the rate of emergence of drug-resistant TB and multi due to the war in Afghanistan who migrated to Pakistan serious disruption in the course of treatment (8). Individuals do not complete the previous history of treatment-resistant TB is the evolution of the major risk factors for multiple medications (7). Strategy for TB control of multidrug-resistant tuberculosis and so this is a must implement emerging issue. The program began WHO tuberculosis to the Ministry of Transport. The point is known as a guide to understanding the WHO recommended strategy for TB control (9) DOTS (directly observed treatment, short), is to give a name to the World Health Organization five elements are:

• the commitment of the government (including all levels of political will and build a TB control, recording and centralized training system and a priority)

• Results of sputum microscopy distortion of each individual case

• by professionals in the health care or community health workers, at least in the first two months of the direct detection of the traditional system

• regular supply of medicines

• Record and unified reporting system that allows assessment of treatment outcomes (9).

It has been proven DOTS for tuberculosis have an effective program to combat tuberculosis, but with the development of tuberculosis MDR, and we need a lot of improvement, our strategy for the treatment of tuberculosis. Punjab, the largest regions of Pakistan points tuberculosis are working in different parts of the Punjab region (11), and the proliferation of point to the Punjab region, which includes 3635 laboratory average was founded in reference laboratories district levels; Institute of Public Health Lahore NISHTER Hospital Multan, quality system of internal and external applicable. The Ministry of Transport is also a tuberculosis hospital in NISHTER (11), but requires a lot of need some improvements.

In 2009 the World Health Assembly adopted the TB MDR (10) of the control and prevention of the resolution. They include the following

1, Each patient has the right to seize the treatment of tuberculosis MDR.

2, Must be effective drugs in the market.

3, Should be banned sales of the drug OTC.

4, Could be tuberculosis MDR in a very short time to diagnose, so there must be a diagnosis can be a sufficient number of laboratories and equipment to make the TB MDR appropriate at any time.

5, There should be a proper control of tuberculosis is an airborne disease is also transmitted through the air.

6, The government should spend money on anti-TB drugs and vaccines are no new research studies, and we will not be able to eliminate tuberculosis (10).

NISHTER Multan Hospital is the largest hospital in South Asia and the purpose of this study was to describe the reason, there tuberculosis MDR NISHTER Hospital in Multan, and the need to improve the work of the Ministry of Plan DOTS tuberculosis. This potential three months, from October 2012 to December 2012 study conducted in a hospital NISHTER Multan.

METHODOLOGY:

Ethical Approval and Informed Consent:

Who participated in the study topics are explained the nature of the prior consent of the parents' goals and the search for patients who do not get self-conscious and minors

Data collection:

The study was conducted by six doctors and pharmacists who are working in the DOT TB collaborative business carried trained. During the visit, the hospital and asks all the questions in the interview in Urdu.

Questionnaire:

The questionnaire includes 32 questions, and researchers ready. The questionnaire included information on age, sex, body mass index, patient education, social, economic, demographic, professional, lifestyle and eating habits housing. Additional information, including the patient's complaint to the hospital, and clinical history related TB is now history. TB treatment history, family history of tuberculosis. Clinical examination, including pulse, temperature and blood pressure, and clubbing, and lymph nodes, thyroid and feet and edema, and is jaundice and shape of the graph of the patient and are written values on examination Performa.Systemic, including the system of cardiovascular, respiratory, written device digestive, nervous system, and through the graph and the values of the patient to see Performa other systems. Currently drugs and non-prescription current.

Analysis of the data:

The data is analyzed using SPSS version 13.

RESULT:

(Table 1) 275 cases, including hospitals, as well as those who have visited the DOT tuberculosis in some hospitals participated in the study. Most of the people who participated in the study in patients less than 30 years old or more than 60 years. Patients who participated in the study, 60% males and 40% females. Approximately 60% of patients who suffer from low body mass index. TB patients in 57% of the weight loss. Most of the patients who participated in the study from Multan. Most of the sick and the poor, and there are social and economic classes and poor lifestyle. Only 50% of patients and 21% of patients the educational level of the General Certificate of Secondary Education Education due to some less than 8% of the 275 patients believe they do not need drugs, they had been diagnosed with TB patients even after (Table 2).

Table 1:Demographic Data ofParticipants (N = 275)

Variable	Frequency	Percentage
Age		
Under 30 years	**83**	**30%**
30 to 49 years	**55**	**20%**
50 to 59 years	**37**	**13%**
60 years or older	**100**	**36%**
Gender		
Male	**165**	**60%**
Female	**110**	**40%**
Body Mass Index		
Less than 18.5	**183**	**66%**
18.5 to 24.9	**48**	**17%**
25.0 to 29.9	**34**	**12%**
30.0 or more	**10**	**3%**
Weigh		
Under weight	**157**	**57%**
Normal weight	**70**	**25%**
Over weight	**46**	**16%**
Location of Residence (city name)		
Multan	**102**	**37%**
Khanewal	**57**	**20%**
Liyyah	**24**	**8%**
Chowkazam	**13**	**4%**
D.G. Khan	**18**	**6%**
Rahim Yar Khan	**10**	**3%**
Shujabad	**8**	**2%**
Others	**43**	**15%**
Occupation		
Homemaker	**119**	**43%**
Laborer	**55**	**20%**
None	**32**	**11%**
Worker	**27**	**9%**
Agriculture	**15**	**5%**

Business Gardener Other	**10** **12** **5**	**3%** **4%** **1%**
Socioeconomic Class Rich Ordinary Poor	 **30** **80** **165**	 **10%** **29%** **60%**
Patients who were over matric B.A	 **140** **63**	 **50%** **21%**
Patients who believe they do not need Anti tuberculosis treatment even they are diagnosed as TB patient.	**22**	**8%**

Table: Demographic Data of Hospital Officials (N = 275)

Variables	Frequency	Percentage
Time Doctor Spent with Patients Less than 10 minutes 10 minutes or more	 **94** **4**	 **96%** **4%**
Proportion of Prescribers who Prescribe Using Generic Name of Medications	**2**	**<1%**
Proportion of Prescribers who Followed Standard treatment guidelines	**17**	**60%**
Proportion of Prescribers Who were Aware of Drug Formulary	**8**	**5%**
Proportion of Prescribers Who Agreed that a Standard Treatment Protocol should be Followed for Treatment of Tuberculosis	**95**	**98%**
Professional who served as Dispenser of Tuberculosis Medication Nurse Pharmacist	 **23** **0**	 **100%** **0%**
Proportion of Patients who Received Counseling about Medications at Time of Dispensing	**87**	**30%**
Proportion of Patients who Reported they Do Not Take the Medication as Prescribed	**23**	**19%**

Types of Tuberculosis reported in Nishter hospital		
Pulmonary tuberculosis	**174**	**63%**
Tuberculosis Meningitis	**61**	**22%**
Abdominal tuberculosis	**11**	**4%**
Bones Tuberculosis	**24**	**9%**
Patients how reports after		
1 month therapy	**138**	**51%**
2 month therapy	**60**	**21%**
3 month therapy	**33**	**12%**
4 month therapy	**20**	**7%**
5 month therapy	**13**	**4%**
6 month therapy	**5**	**1.8%**
Patients shows who left treatment after the resolving of symptoms	**78**	**28%**
Patients shows compliance	**80**	**30%**
TB DOT requirements		
Diagnosis of TB	**100**	**100%**
Anti-tuberculosis drugs	**100**	**100%**
Health worker for adherence	**0**	**0**
Preventive measures in ward		
Doctors wear mask	**5**	**30%**
Separate place for MDR TB	**No**	**No**
Nurses wear masks	**0**	**0**

Most doctors spend less than ten minutes for the patient. Any rule of prescription drugs, and that a generic name. About 60 percent of prescribers using the guide lines of the standard TB treatment. With a smaller number of doctors are aware of the prescriptions. Most medicines are exempt from the nurse. No hospital pharmacists. Only 30% of patients receiving appropriate advice in the time allotted.

She said 23% of the patients that they did not take the medication as prescribed. Have been observed most of the TB cases in the hospital NISHTER. Only 51% of patients after treatment and a decrease in one month through a number of reports, the patient goes to then 2 month reported later in 21% of patients, and reported that only 13% of patients that after three months of treatment. The 28% of patients who left before being resolved their symptoms treatment. 30% of patients who show 100% compliance. Met with the Ministry of Transport and the Ministry of Transport Tuberculosis Tuberculosis all the requirements, in addition to this is the need to monitor workers' health patient compliance to treatment were not present in the hospital. There are no private space for patients with tuberculosis MDR, not doctors or nurses in the ward precautions to prevent the spread of TB.

DISCUSSION: -

Tuberculosis is known as multidrug-resistant as "TB infection, resistant to at least two first-line drugs such as isoniazid and rifampicin" (1) The first results of treatment of patients who suffer from TB MDR study of Pakistan. In this study, the percentage of 39.2% in the treatment of tuberculosis treatment of multidrug-resistant relatively low rate of drug-susceptible TB (12). Tuberculosis MDR is to develop opportunities in the patients who were treated by (6).

In this study, we sought to identify the main causes of tuberculosis MDR in Pakistan. One important reason is the emergence of function tuberculosis DOT. There TB DOT five points, according to the World Health Organization (9).

• This is the commitment of the government (including all levels of political will and build a TB control, recording and centralized training system and a priority)

• Results of sputum microscopy distortion of each individual case

• by professionals in the health care or community health workers, at least in the first two months of the direct detection of the traditional system

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This is the set-aside for the prevention of resistance to multiple drugs very important point tuberculosis. The third point, which is a health worker should comply with the system has been totally lost in the first two months Hospital NISHTER, which is the main reason for non-compliance of the patient.

The second main reason for the emergence of drug-resistant TB is a multi-rate literacy and poor lifestyle

Due to the low rate of literacy and style of life of the patient does not know the difference between most of their symptoms, and patients leave the treatment to be resolved.

Lack of knowledge and misconceptions about tuberculosis patients Pakistani rampant. TB patients lack of awareness of their illness may contribute to the high burden of TB in the country. Most people in Pakistan do not know the spread of tuberculosis (13) model.

Hospital NISHTER in a similar situation, most people do not take into account the time for the spread of tuberculosis, and most of the patients to get rid of them assume that they do not need drugs symptom patterns.

Doctors should spend more time and patience, he must educate patients about the appropriate mode of spread of tuberculosis, as well as dangerous, if not completed patients during treatment

Medical allocated by qualified pharmacists and patients about the correct guidance of the time that the patient and the patient's medication lawyers to complete the treatment.

Tuberculosis MDR, and only when anti-TB drugs of abuse and mismanagement (14) development. This is a new challenge for the treatment of TB and MDR. I've been a long time could not be found on the new drugs anti-TB. Any anti-TB drugs, which developed the new 40 years ago yesterday (15). Therefore, we must take the necessary precautions to prevent the emergence of drug-resistant TB multi-

CONCLUSIONS AND RECOMMENDATIONS

If the program TB-DOT will then later all points higher clinical success rate and is reduced by the emergence of drug-resistant TB multiple. Should take into account health professionals in all areas of the patient, at least during the first two months of the system. This is a point that is missing completely in hospital procedures TB-DOT Nishtar. If you are planning TB-DOT fallow that can increase patient compliance will be reduced and the emergence of drug-resistant TB multiple. It should be on the proper education of patients of tuberculosis. Pharmacists should be set for the distribution and advice. The government should support the TB-DOT program and to ensure that health professionals are the key points and keep track of each hospital and is being monitored plans TB-DOT in patients treated insisted strongly.

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