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Prevalence of Tuberculosis: Current Status in Manglawar District Swat, Khyber Pakhtunkhwa, Pakistan

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Abstract:

Tuberculosis (TB) is the leading cause of mortality and morbidity like other infectious diseases globally. The present study was conducted to determine the prevalence of tuberculosis in Manglawar Swat Khyber Pakhtunkhwa Pakistan. The study was conducted in the period of August 2013 to November 2013. Data was collected along with Performa from 310 TB patients in which 173 (55.80%) were female and 137 (44.19%) were male. High occurrence of TB was recorded in the 15-60 years of age (82.08%).

Key words: Tuberculosis, Prevalence, Manglawar, Swat, Pakistan

Introduction

Tuberculosis, an infectious disease, is caused by Mycobacterium tuberculosis. The Mycobacterium tuberculosis-complex includes

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Mycobacterium tuberculosis, Mycobacterium bovis, Mycobacterium bovis-BCG, Mycobacterium microti and Mycobacterium africanum. It is facultative intracellular parasite, generally invades macrophages. Mostly lungs are attacked by it, but it can attack other parts of the body (Siddiqui et al. 2013).

TB is a major health problem worldwide with mortality ranging from 1.6 to 2.2 million lives annually. Increase in the incidence of drug resistant TB the situation has become worst (Aftab et al. 2009).

Tuberculosis has become one of the leading cause of morbidity and mortality in the near future for the world, with the number of newly occurring cases that is approximately from 7.5 million in year 1990 to 8.8 million, 10.2 million and 11.9 million in the years 1995, 2002 and 2005 respectively (Chakraborty 2003).

According to an estimate 1.7 million people died from TB (including 600 000 women) in 2009, including 380 000 people with HIV, equal to 4700 deaths a day (WHO 2010/2011).

Mycobacterium tuberculosis (TB) is a slow-growing facultative intracellular parasite. Depending on the stage and severity of the disease during infection it is exposed to many different environmental risks (Manganelli et al. 1999).

According to an estimate more than nine million cases of tuberculosis occur annually. Tuberculosis is believed to be the most responsible for the death of adults each year from any other single infectious agent (WHO 2009).

The highest rate of infection of TB is currently found in the less developed countries of Africa and Asia where the TB controlling efforts are held back by weak health systems and in some settings, by the high prevalence of co-infection with HIV (Corbett ET AL. 2006).

Tuberculosis (TB) is in heavy burden for centuries in developing countries, including India. Among the eight million people developing TB every year, nearly two-thirds live in Asia

and the Pacific region (Narain and Lo 2003).

Tuberculosis continues to be a major killer worldwide. One third of the World's population is infected with mycobacterium tuberculosis. According to an estimate deaths due to TB in 2009 were 1.3 million worldwide. Pakistan stands sixth in rank among the highest TB burden countries. In Pakistan Prevalence of TB is 420,000 and incidence is 231 per 100,000 population (Gilani and Khurram 2012).

In Pakistan the incidence of sputum positive TB cases is 80/100,000 per year and for all types it is 177/100,000. TB is responsible for 5.1 percent of the total national disease burden in Pakistan. The important impact of TB is socio economic status (Vermund et al. 2009)

The present study was carried out to determine the prevalence and sex-wise distribution of tuberculosis in patient of district Swat, Khyber Pakhtunkhwa, Pakistan.

Methods and Materials

Manglawar is situated 34°47'11.9" Latitude and 72°30'15.16" Longitude. The study was carried out in order to determine the prevalence of tuberculosis in Manglawar Swat, Khyber Pakhtunkhwa Pakistan. Data was collected from patients through proforma containing whole information about the patients (i.e date of registration, age, gender and previous treatment). During the 4 months study period from August to November data was collected from 310 patients. We carry out the sex and age wise analysis of the data.

Results and Discussions

Socioeconomic and hygienic conditions are directly related to the transmission of tuberculosis in human populations (Ullah et al. 2008). The leading health problem globally is TB, with approximately 8 million new cases annually, in which the rate

of pulmonary disease in approximately 3.5 million (44%) (WHO 1997, Dye et al. 1999). The ratio of the age wise distribution was done in which the ratio of male was 137(44.19%) and female was 173 (55.80%) as shown in figure 1.1. Similar results were reported by (Naeem et al. 2011) in which the ratio of female was (53.1%) and 257 (46.9%) male. The possible reason of high infection rate in females would be illiteracy, no proper vaccination, socio economic problems, and unhygienic conditions.

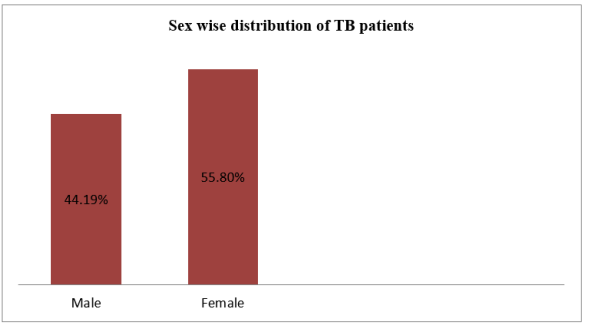

Figure 1.1: Sex-wise distribution of TB patients

According to (Ayaz et al. 2012) the infection rate of TB was high in age of 10-20 years that was (68.96%), (35.29%) infection was recorded in age from 21-40 years and the lowest infection rate was recorded in more than 40 years of age that was (15.06%). Similarly (Ahmad et al. 2013) reported the maximum numbers of patients in age of 15-64 that was 82.72%. In our study the high rate of infection was in age of 31-45 that was (46%) in male and (46.82%) in females, followed by age of 46-60 years of age in which infection rate was (32.11%) in male and (34.10%) in females whereas the lowest infection rate was found in age of above 60 years of age that was (3.64%) in male and (4.04%) in females.

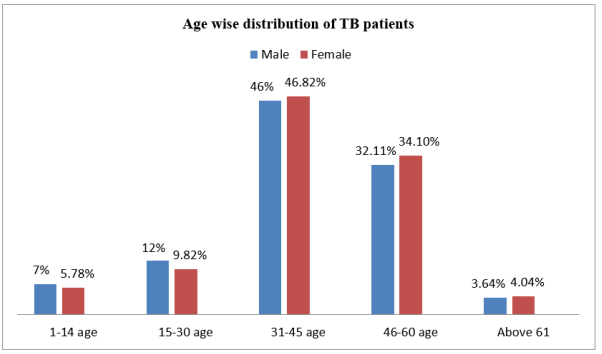

Figure 1.2: Age wise distribution of TB Patients

Conclusion

During the study it was concluded that the main cause of the tuberculosis was the unhygienic conditions and all the people living in one house so there is much chance of transmission of the disease. The females were much more infected as compared to males so there is great risk to the family members because of more contact with the family members. Government has to educate the people through seminars and media, so that people get more awareness about the disease.

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