

Research and Reviews: Journal of Medical and Health Sciences

Prevention of Tuberculosis: an overview

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Commentary

Received: 08/03/2015

Revised: 26/03/2015

Accepted: 08/04/2015

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Keywords: Tuberculosis, Bacteria, antibiotics, HIV, Mycobacterium Tuberculosis, Infection.

INTRODUCTION

Tuberculosis is the infectious disease caused by the various strains of bacteria usually *Mycobacterium tuberculosis* it's an acid fast bacterium. It is the air borne disease spreads by individual to individual through droplet from the throat and affected lungs [1-7]. It spreads through the lymph nodes and blood stream and any organ in the body. It majorly affects upper parts of lungs. It was first discovered by the German Physician named Robert Koch in 1882. He received Nobel Prize for this discovery. Nearly 15million people are effected world widely. Mostly African countries are more prone to the TB HIV associated TB accounted cases is 78% in Africa compare to South East Asia is about 13%. In 2008 there may increase the TB deaths about 37%. Children are highly vulnerable than adults. Proper medication can help to get rid of the causative bacteria. Various antibiotics are helpful to cure the disease [8-12].

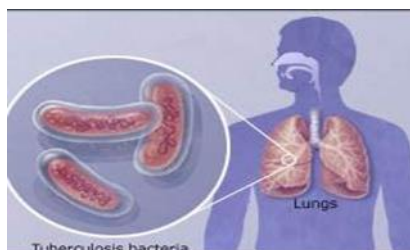


Figure 1: Tuberculosis Bacteria (image courtesy: <http://www.webmd.com/a-to-z-guides/understanding-tuberculosis-basics>)

SYMPTOMS OF TUBERCULOSIS

Initially symptoms cannot be seen, because bacteria can live in inactive form, later it develops. There may be lot of symptoms can be occurred. Some of the majorly seen symptoms are as follows.

Severe cough associated with blood, chest pain or pain with breathing or coughing, weight loss, fatigue, Night sweats, chills, Loss of appetite, unexplained pain for more the three or more weeks [13-16].

Diagnosis: Chest CT scan, X ray, Biopsy of effected tissue, Bronchoscopy and Tuberculin test.

TREATMENT

It takes several months to treat the tuberculosis. Various antibiotics are used like Isoniazid, Rifampicin, Pyrazinamide, Ethambutol and Streptomycin. This is taken as First Line Drug Treatment.

Fluoroquinolones: examples: levofloxacin, moxifloxacin, ofloxacin [17-19].

Oral Bacteriostatic Second Line Agents: example: para-aminosalicylic acid, cycloserine, terizidone, thionamide, protionamide [20-13].

These are the drugs commonly used in the treatment.

CONCLUSION

TB associated with HIV mostly in African people are getting burden with their lives. This causes in increase of death rate. Treatment is similar in HIV infected and uninfected patients. Rifampin is mostly used drug in initial cases and continued in regular phases is important. I concluded that advancement is necessary for effective TB vaccine and improvement of antibiotics are required to reduce the duration of treatment. Implanting the modern techniques in TB screening and diagnosis initially at early stages can reduce the TB death rates.

Apart from Africans most TB affected cases can be seen among Dairy Farm Workers in Addis Ababa and its surroundings. Increase the occurrence of TB among DFW's in them while working with the cattle. Main reason for this is lack of awareness about TB in them. Avoidance of clinical observation, symptoms of disease and self-protection are main cause for the increased the ratio of TB in them. By creating awareness and self-education about the disease can be encouraged. Educating the primary care in working with cattle, sanitation, care and non-exposure to the infectious agents can be created the awareness program by volunteers and conducting health camps can be conducted. This reduce the interspecies transmission of TB can be reduced.

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