

## An Overview of Pulmonary Tuberculosis

Nishmi Gunasingam\*

Department of Gastroenterology, St Vincent's Hospital, Sydney, Australia

### DESCRIPTION

*Mycobacterium tuberculosis* is the bacterium that causes tuberculosis (TB), which is a contagious, airborne infection. *Mycobacterium* is also responsible to cause pulmonary tuberculosis that primarily affects lungs. It can, however, spread from pulmonary region to other organs. Pulmonary tuberculosis is treatable if detected and treated early with antibiotics.

### Symptoms

Only some of the following symptoms of active pulmonary tuberculosis may arise during the initial infection (and they may be minimal in a healthy person) or during a later reactivation of *Mycobacterium tuberculosis* infection:

- Chest pain
- Breathing difficulties or wheezing
- Cough (usually with mucus, sometimes with blood)
- Fever, occasionally accompanied by nocturnal sweats
- Fatigue
- Weight loss that was unintentional

### Causes

*Mycobacterium tuberculosis* is a type of bacteria that causes tuberculosis (*Mycobacterium tuberculosis*). However, only about 10%-20% of people infected with this virus develop "Active TB." A person who has the infective agent but does not develop symptoms has "Latent TB," which is not contagious but can progress to active TB if a person's immune system is weakened by a condition such as HIV. When the immune system is unable to keep the germs from proliferating, Tuberculosis (TB) might become active. However, many people who have latent tuberculosis never acquire active disease. When people with active pulmonary tuberculosis cough, sneeze, or talk, they expel the causative organism in the form of tiny water droplets. These droplets travel through the air and can be inhaled, acquiring the infection.

### Treatment

Treatment is determined according to the patient's condition, i.e.

whether the patient has active or latent tuberculosis. A doctor will recommend preventative therapy for those with latent TB, which commonly entails taking an antibiotic called isoniazid daily for 6-9 months. People with active tuberculosis usually require a 6 to 12 month course of antibiotics. Isoniazid, rifampin, ethambutol, and pyrazinamide are first-line treatments. However, it is critical to complete the entire course of therapy exactly as prescribed by the doctor in order to prevent the condition from reoccurring and the bacteria from growing resistant to the treatments.

### Diagnosis

A skin or blood test can be used by a doctor to detect the presence of *Mycobacterium tuberculosis*. Latent tuberculosis causes no symptoms, although the infection can be detected by tests. Physician should request a tuberculosis test if they-

- Have spent time with someone who has or is at risk of having tuberculosis
- Have lived in a nation with high TB rates

A doctor will inquire about any symptoms as well as the patient's medical history. A physical examination will also be performed, which will include testing of the lungs and examining for enlargement in the lymph nodes. These, however, cannot determine whether TB is active or latent. A sputum test and a chest X-ray may be recommended by the doctor to test for active tuberculosis disease.

### CONCLUSION

The most important and potent risk factor for tuberculosis infection and illness is HIV co-infection. Early HIV counseling and screening for Tuberculosis (TB) patients, as well as early diagnosis and initiation of ART treatment for co-infected individuals which has all been found to be useful in preventing TB disease. Drug-resistant tuberculosis is far more difficult to cure and can be extremely hazardous if passed on to others. Therapy for tuberculosis is mandatory, whether the illness is active or latent.

**Correspondence to:** Nishmi Gunasingam, Department of Gastroenterology, St Vincent's Hospital, Sydney, Australia, E-mail: [astoita@stvincents.com.au](mailto:astoita@stvincents.com.au)

**Received:** 15-Jul-2022, Manuscript No. MDTL-22-19183; **Editor assigned:** 18-Jul-2022, PreQC No. MDTL-22-19183 (PQ); **Reviewed:** 01-Aug-2022, QC No. MDTL-22-19183; **Revised:** 08-Aug-2022, Manuscript No. MDTL-22-19183 (R); **Published:** 17-Aug-2022, DOI: 10.35248/2161-1068.22.12.296.

**Citation:** Gunasingam N (2022) An Overview of Pulmonary Tuberculosis. *Mycobact Dis*. 12.296.

**Copyright:** © 2022 Gunasingam N. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.