

Etiology and Diagnosis of Pulmonary Tuberculosis

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DESCRIPTION

Pulmonary tuberculosis, also known as TB, is a contagious bacterial infection that mainly affects the lungs. It is caused by *Mycobacterium tuberculosis*, a bacteria that can spread through the air when an infected person coughs or sneezes. Pulmonary TB is a serious disease that can cause a range of symptoms and can lead to complications if left untreated. In this article, we will discuss the causes, symptoms, diagnosis, and treatment of pulmonary tuberculosis.

Causes of pulmonary tuberculosis

Pulmonary TB is caused by the bacteria *Mycobacterium tuberculosis*. The bacteria can spread from person to person through the air when an infected person coughs, sneezes, speaks, or even sings. When a person inhales air that contains the bacteria, the bacteria can travel down the trachea and into the lungs, where they can cause an infection.

Certain factors can increase the risk of developing pulmonary TB, including-

- Weakened immune system: A weakened immune system due to conditions such as HIV/AIDS, malnutrition, or other diseases, increases the risk of developing pulmonary TB.
- Living or working in close quarters: People who live or work in close quarters, such as prisons or homeless shelters, are at a higher risk of developing pulmonary TB.
- Age: Pulmonary TB is more common in older adults, especially those over 65.
- Substance abuse: Substance abuse, particularly intravenous drug use, increases the risk of developing pulmonary TB.
- Traveling or living in high-risk areas: Traveling or living in areas with a high incidence of TB, such as Africa, Asia, or South America, increases the risk of developing pulmonary TB.

Symptoms of pulmonary tuberculosis

The symptoms of pulmonary TB can vary depending on the

severity of the infection. Some people may have mild symptoms, while others may have more severe symptoms. The most common symptoms of pulmonary TB include:

Coughing: A persistent cough that lasts for more than three weeks is one of the most common symptoms of pulmonary TB.

Chest pain: Chest pain that occurs when coughing or breathing deeply is another common symptom of pulmonary TB.

Fatigue: Fatigue and weakness are common symptoms of pulmonary TB.

Weight loss: Unexplained weight loss is another common symptom of pulmonary TB.

Night sweats: Night sweats that cause the person to wake up drenched in sweat are another common symptom of pulmonary TB.

Fever: Low-grade fever is a common symptom of pulmonary TB.

Loss of appetite: Loss of appetite and a general feeling of malaise are common symptoms of pulmonary TB.

Diagnosis of pulmonary tuberculosis

To diagnose pulmonary TB, a doctor will perform a physical exam and order a series of tests. The first step in the diagnosis of pulmonary TB is a chest X-ray, which can show the presence of abnormal lung tissue. Other diagnostic tests for pulmonary TB include:

Sputum test: A sputum test involves collecting a sample of sputum and testing it for the presence of the bacteria that causes pulmonary TB.

Blood test: A blood test can detect the presence of antibodies to the bacteria that causes pulmonary TB.

CT scan: A CT scan can provide a more detailed image of the lungs, which can help in the diagnosis of pulmonary TB.

Bronchoscopy: A bronchoscopy involves inserting a flexible tube with a camera into the lungs to collect a sample of lung tissue for testing.

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