

## COMPLICATIONS OF PULMONARY TUBERCULOSIS

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Tuberculosis (TB) is a leading infectious cause of morbidity and mortality in adults worldwide, killing about 1.5 million people every year. Tuberculosis is a chronic, progressive infection with a period of latency following initial infection. It occurs most commonly in the lungs. Pulmonary symptoms include productive cough, chest pain, and dyspnea. Complications of pulmonary tuberculosis include respiratory failure, hemoptysis and pulmonary hemorrhage, spontaneous pneumothorax, atelectasis, bronchial and thoracic fistulas, congestive heart failure and amyloidosis.

Respiratory failure is nearly any condition that affects breathing function or the lungs themselves and can result in failure of the lungs to function properly. Respiratory failure often is divided into two main types: hypoxemic respiratory failure, occurs when something interferes with normal gas exchange and ventilator failure, occurring when, for any reason, breathing is not strong enough to rid the body of CO<sub>2</sub>.

Hemoptysis is the coughing up of blood or bloody sputum from the lungs or airway. Hemoptysis can be divided into the following groups: Pseudo-hemoptysis, hemoptysis without lung illness, hemoptysis at non tuberculosis lung illness and hemoptysis at lung tuberculosis. It may occur at any form and phase of the process, but more often at destructive forms of tuberculosis, it is rare in post-tuberculosis pneumosclerosis with bronchiectasis. Causes of pulmonary hemoptysis and hemorrhage in are is as a result of rupture of blood vessel wall of (bronchial/pulmonary artery) or their anastomoses, pulmonary hypertension, coagulopathies, vessel wall hyperpermeability.

A pneumothorax refers to a collection of gas in the pleural space resulting in collapse of the lung on the affected side. A spontaneous pneumothorax, also referred to as a primary pneumothorax, occurs in the absence of a traumatic injury to the chest or a known lung disease. A secondary (also termed complicated) pneumothorax occurs as a result of an underlying condition. Spontaneous pneumothorax is caused by a rupture of a cyst/bulla or a small sac (bleb) on the surface of the lung. In TB, it can also be caused by a cavern rupture into the pleural cavity.

Atelectasis is defined as diminished volume affecting all or part of a lung. Atelectasis is divided physiologically into obstructive and nonobstructive causes. Obstructive atelectasis is caused by obstruction of the main bronchus by foreign body, tumor, and mucous plugging. Forms of obstructive atelectasis include lobar and segmental. These also happen to be more characteristic of tuberculosis.