

Inhaled Foreign Body – trachea



Ref.no.: MP2053

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Clinical History

A 57-year old male presented with a 3-week history of cough and pleuritic left sided chest pain. Chest x-ray showed left upper lobe collapse with large left sided pleural effusion. Pleurodesis aspirated frank pus from the pleural cavity. He later died despite pleural drainage and antibiotic treatment.

Pathology

This specimen shows the lower trachea and main bronchi. These have been cut open and the left upper lobe has been sliced to display the cut surface. At the point of origin of the left upper lobe bronchus there is an impacted foreign body; an inhaled rabbit vertebra! As a result of the obstruction, the upper lobe has collapsed, pneumonia has developed and the pleural surface is covered by fibrinous exudate. This is an inhaled foreign body with associated collapse and pneumonic consolidation of the left upper lobe and empyema.

Further Information

Inhalation of a foreign body or foreign body aspiration (FBA) occurs when a foreign body is inhaled into the airway causing partial or complete obstruction of the airway. This can potentially be fatal. It is more common in children than adults. It is a leading cause of accidental death worldwide. FBA poses greatest risk of death to those less than 1-year old and patients over 75 years of age.

Risk factors for FBA in adults include decreased level of consciousness, drug or alcohol intoxication, or anaesthesia. In the elderly additional risk factors include medication use (impairing cough and swallowing), stroke-related dysphagia, and degenerative neurologic diseases, such as Alzheimer's or Parkinson's disease. In adults, the most commonly aspirated foreign bodies include inorganic items (e.g. nails, pins, dental debris) and organic material (e.g. bones, improperly chewed meat, and watermelon seeds). Symptoms on presentation vary depending on the degree of airway obstruction caused. Larger obstruction may present as choking or sudden asphyxia. Smaller foreign bodies may present with more insidious symptoms such as cough, dyspnoea, fevers, chest pain and haemoptysis. Airway collapse distal to the foreign body will lead to infection. Treatment involves retrieval of the foreign body with bronchoscopy or emergency tracheostomy.

