Endobronchial Tuberculosis Simulating Foreign Body Aspiration*  

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A case of sudden onset of severe respiratory distress is reported. Appropriate clinical and roentgenologic findings suggested foreign body aspiration. The foreign body was removed by fiberoptic rigid bronchoscope. Bronchoscopic, histopathologic, and microbiologic findings revealed that the foreign body was a granulomatous mass originating from endobronchial tuberculosis. (Chest 1989; 95:1164)

Endobronchial tuberculosis is a complication of primary lung tuberculosis and may result from rupture of an infected lymph node through the bronchial wall or from lymphatic spread to the mucosal surface of the bronchial tree. The clinical manifestation of endobronchial tuberculosis includes cough, bronchorrhea, bronchial stenosis, and atelectasis. Endobronchial obstruction may also result in acute respiratory distress.

CASE REPORT

A six-year-old girl was admitted with sudden onset of severe respiratory distress. The child was dyspneic and orthopneic with tachycardia, tachypnea, and restlessness. There was a weak cough. The respiratory sounds were hardly heard on the left lung. The chest roentgenogram revealed that the left lung was mostly opaque, and aeration could be seen only in the superior part of the left upper lobe. Marked shift of the mediastinum to the left was interpreted as a result of atelectasis, possibly caused by the obstructing foreign body. The right lung was normal clinically and roentgenologically. The child was immediately taken to the operating room for bronchoscopy. A spongy material obstructing the left main bronchus was removed by fiberoptic rigid bronchoscope. A large bleeding ulcer was observed several centimeters proximal to the endobronchial mass. The bleeding lesion was thought to be the origin of the spongy mass because a small part of the mass was still there. No fistula was observed, and the lesion was not biopsied.

Histopathologic analysis of the material revealed a caseous granuloma, and Ziehl-Neelsen stain was positive for acid-fast bacilli. Mycobacterium tuberculosis was identified later on culture. Triple antituberculosis therapy (streptomycin, rifampicin, and isoniazid) was started after the diagnosis of endobronchial tuberculosis was established.

Twelve hours after the removal of the foreign body, widespread crepitations were heard on the left lung with some degree of roentgenologic improvement. Two months after the institution of antituberculosis therapy, almost complete healing was observed with the exception of a few residual infiltrates near the diaphragm (Fig 1).

DISCUSSION

In this case of endobronchial tuberculosis simulating foreign body aspiration, the history did not suggest tuberculosis. Rare coughing in the past was attributed to frequent common colds by the family. There was no history of tuberculosis in any relatives or close contacts.

The bleeding lesion that was seen on bronchoscopic examination is considered the ruptured lymph node. We think that the granulomatous material from the ruptured node moved distally and obstructed the left main bronchus.

Clinicians need to be aware of this manifestation because this case could easily be confused clinically with foreign body aspiration. A recent review of 20 adult patients with endobronchial tuberculosis found that all of their patients exhibited cough, 25 percent exhibited hemoptysis, and 35 percent exhibited dyspnea. However, none of these patients exhibited acute onset of dyspnea. In the future, endobronchial tuberculosis may be encountered more often in patients with the acquired immunodeficiency syndrome (AIDS). Patients with AIDS often exhibit unusual manifestations of tuberculosis, including mediastinal lymphadenitis and even endobronchial tuberculosis.

With this experience, we can suggest that obstructive endobronchial tuberculosis must always be kept in mind in the differential diagnosis of foreign body aspiration.

REFERENCES