



Neglected foreign body aspiration mimicking bronchial carcinoma

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Abstract

Foreign body aspiration can occur in any age group, but it is more commonly seen in children. In adults, there is usually a predisposing condition that poses a risk of aspiration. If aspiration occurs, prompt diagnosis and extraction of the foreign body is needed to prevent early and late complications. We report a rare case of neglected foreign body aspiration in a 45-year-old schizophrenic opium addicted patient, which resulted in an occlusive lesion in the bronchus, mimicking bronchial carcinoma.

Keywords

Bronchi, Bronchial carcinoma, Foreign bodies, Pneumonia, aspiration

Introduction

Foreign body aspiration can occur in any age group but it is more commonly seen in children. In adults, there is usually a predisposing condition that poses a risk of aspiration. A high index of suspicion is necessary for early diagnosis according to history, signs, and symptoms, because delayed diagnosis may result in serious complications such as pulmonary infection and atelectasis, bronchiectasis, hemoptysis, and even empyema. We report a rare case of neglected foreign body aspiration in a 45-year-old schizophrenic opium addicted patient, which resulted in an occlusive malignant-like lesion in the bronchus.

Case report

A 45-year-old man was admitted with complains of fever, productive cough, and increasing dyspnea for 3 months. He was addicted to opium, a heavy smoker, and a known case of schizophrenia with a recent history of receiving shock. Streaks of blood were seen in his sputum. Chest radiography indicated bronchiectatic changes in the left lower zone. Computed tomography showed localized bronchiectasia in the left lower lobe (Figure 1). Fiberoptic bronchoscopy revealed an occlusive lesion in the stoma of the left lower lobe bronchus, mimicking bronchial

carcinoma, which was biopsied (Figure 2). Pathological studies showed no malignancy. Based on symptomatic left lower lobe bronchiectasia in the presence of an occlusive lesion in the lower lobe bronchus, a lobectomy was decided. After a standard posterolateral thoracotomy, a left lower lobectomy performed, but the margin of the divided bronchus was very close to the lesion, so we decided to open the divided bronchus to take a biopsy for frozen section analysis. Unexpectedly, a missed foreign body, a chicken bone, was extracted from the bronchus, and the etiology was established. The operation terminated with a left lower lobectomy, and the postoperative period was uneventful. The permanent pathologic result revealed lobar destruction and bronchiectasia with no malignancy in the lesion. During 1-year follow-up, the patient was in good

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Figure 1. Chest computed tomography: (a) mediastinal view; (b) parenchymal view.

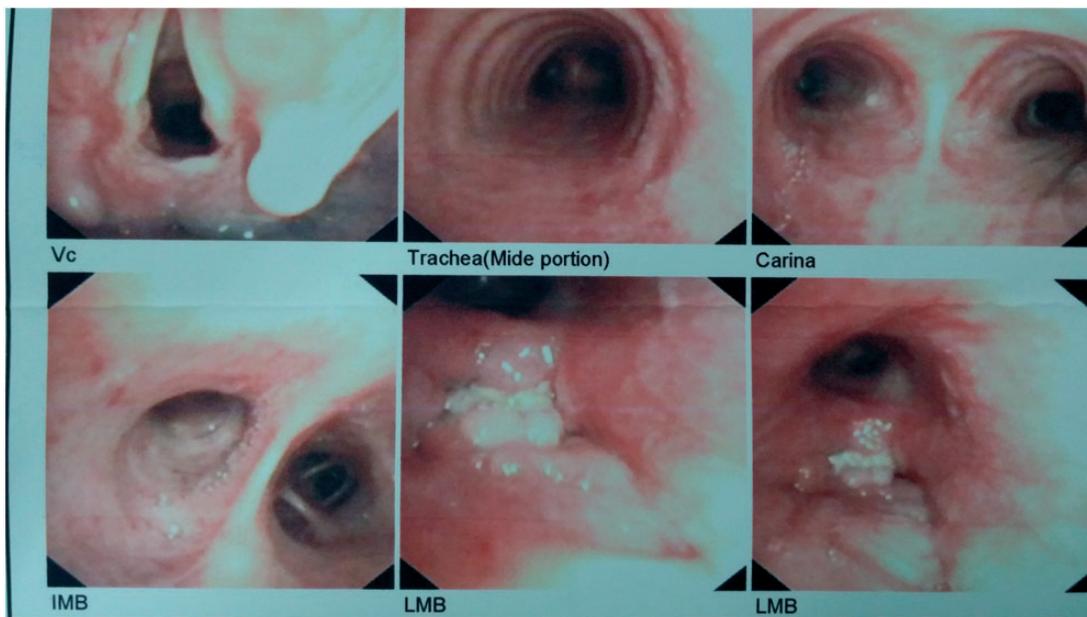


Figure 2. Fiberoptic bronchoscopy showing complete obstruction of the left lower lobe ostium.

condition with no symptoms and a clear lung in computed tomography scan.

Discussion

A long-standing foreign body in the bronchial tree results in inflammation and provokes the development of granulation tissue that causes obstruction and

atelectasis. Any prolonged obstruction of the bronchus and atelectasis can destroy the architecture of the lung and produce bronchiectasis and related complications such as hemoptysis and empyema.^{1,2} Thus it requires urgent diagnosis and intervention. Foreign body aspiration occurs frequently in children because of their habit of placing objects in the mouth, but in adults, there are risk factors such as alcohol consumption,

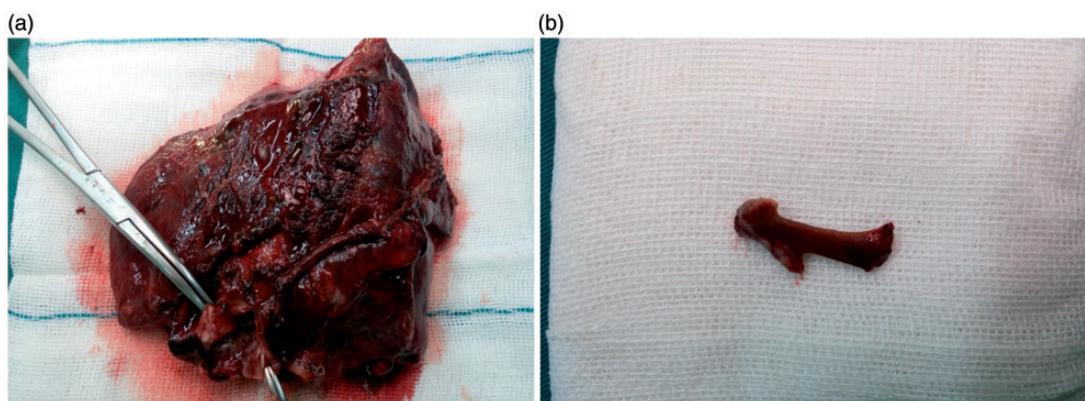


Figure 3. (a) The left lower lobe after resection and opening of the bronchial ostium, and (b) the chicken bone aspirated into the bronchial tree.

drug abuse, senility, convulsions, general anesthesia, trauma, mental retardation, and dental prostheses that might lead to aspiration.^{3–5} Various materials may be aspirated, and the symptoms differ from person to person.^{3,6} It is important to diagnose the problem early to prevent late complications and also to perform a less invasive intervention to treat the patient. With early diagnosis, the foreign body can be extracted by fiberoptic or rigid bronchoscopy, whereas with a late diagnosis, a thoracotomy may be needed to manage complications. A high index of suspicion is necessary to make an early diagnosis. Bronchoscopy is the method of choice for diagnosis and treatment.^{3,7}

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