



## Delayed Presentation of Foreign Body Aspiration in an Adult

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### Abstract

Foreign Body (FB) aspiration in adults is usually associated with predisposing risk factors. Clinical manifestations are immediate but less frequently it could lead to insidious lung damage, as demonstrated by the presented case. We present a case of unsuspected FB aspiration, mimicking an infection vs. lung tumor. After left lower lobectomy, pathology revealed a foreign body (animal bone) at the open of lingular bronchus.

### Introduction

Tracheobronchial Foreign Body (FB) aspiration is not uncommon, though the incidence in pediatric age is higher [1,2]. The clinical manifestations range from acute asphyxiation, when FB obstruct the main airway, whereas in more distal airway obstruction, it is more common signs of a recurrent infection with insidious lung damage. A delayed diagnosis is frequent in cases where FB aspiration is not overt, so it should be considered as one of the causes of persistent post-obstructive pneumonia [3-5].

Symptoms are usually nonspecific, so a high level of clinical suspicion is needed, as its presentation mimics other respiratory tract pathologies [6]. The predisposing factors in adults are male sex, old age, CNS dysfunction, psychiatric illness, alcohol and/or sedative abuse, trauma intubation, dental procedure and pulmonary disease [7,8].

Because of the anatomical features of the bronchial tree, foreign body is commonly lodged in the right, especially in the right intermediate bronchus [9]. According to the literature, based in case series, it was reported that 50.1% of aspirated foreign bodies were in the right bronchial system, 46.5% were in the left bronchial system, and 3.6% were in the trachea [10].

### Case Presentation

We present a case of delayed presentation and unsuspected FB aspiration in an adult where a lobectomy was performed. A 63 years-old caucasian man, former smoker, with past medical history of COPD, hypertension, dyslipidemia and acute myocardial infarction in 2005, without history of alcohol or sedatives abuse. He presented in the Outpatient Clinic of Pneumology in January 2018 with complaints of weight loss, since 9 months before, and cough-syncope episodes following vigorous bouts of cough since 6 months before, with no fever or chest pain. He also reported hemoptysis since 2 months before. He denied history of aspiration. Pulmonary auscultation revealed crackles in the left hemithorax. On investigation, chest- RX showed an opacification of the middle left hemithorax and chest-CT revealed a lingular consolidation with atelectasis (Figure 1 a). It was performed a bronchoscopy, with evidence of a white and necrotic plaque in the left upper division bronchi with signs of obstruction and bronchial lumen reduction, as also signs of mucosal edema and infiltration (Figure 1b-1e). The patient kept the recurrent symptoms initially described along the next 6 months, and there was also a radiological impairment in sequential chest-CT scan, with a higher extension of the lingular consolidation. It was performed a PET scan, with signs of metabolic activity in lingular consolidation (SUV maximum of 8, 4). Considering the insidious clinical evolution, the persistence of symptoms and radiological impairment, the suspect was infectious or malignant aetiology. The patient underwent a left upper lobectomy, where it was removed a foreign body-animal bone-located at the open of lingular bronchus (Figure 1 f). The histological result showed an inflammatory infiltrate surrounding a foreign body (chicken bone).

This case demonstrates the potential diagnostic challenges of FB aspiration. There was neither

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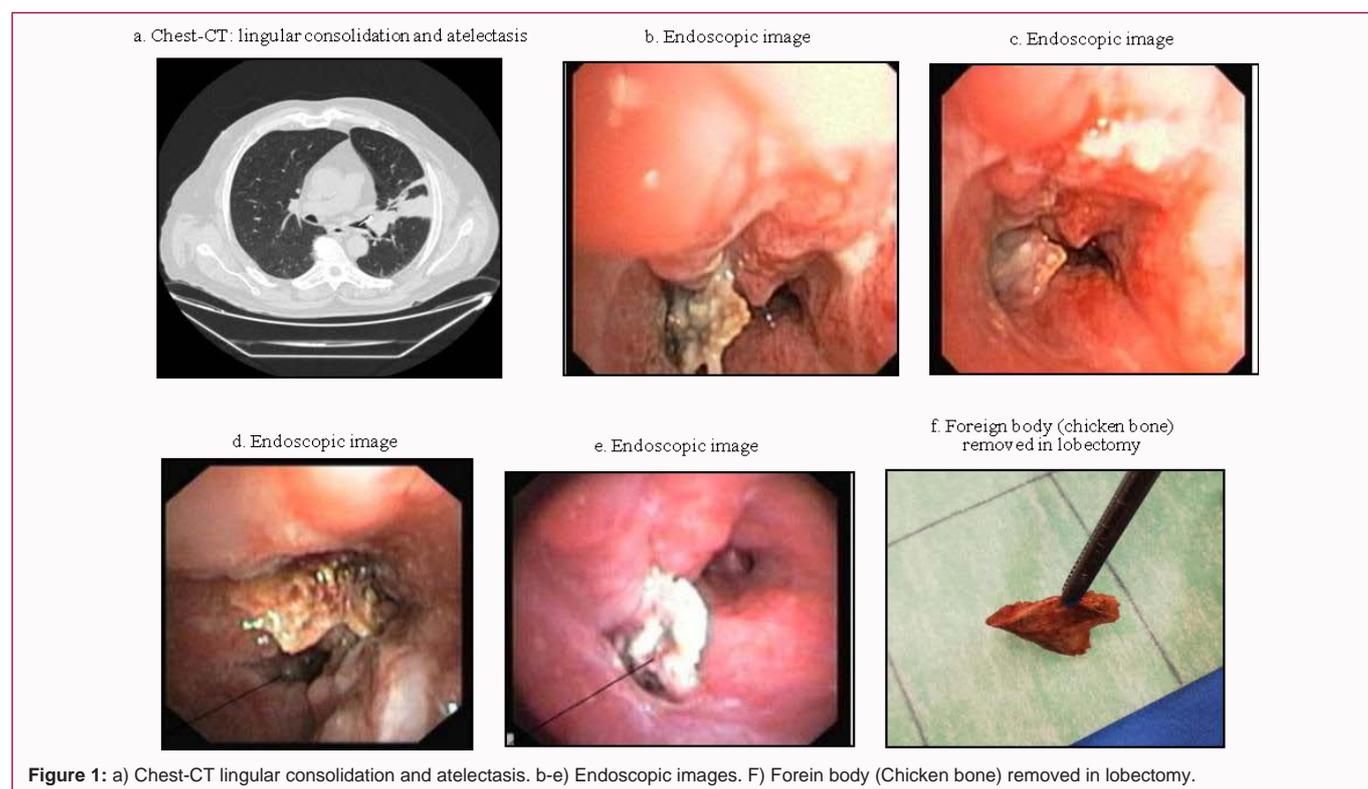
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**Figure 1:** a) Chest-CT lingular consolidation and atelectasis. b-e) Endoscopic images. F) Foreign body (Chicken bone) removed in lobectomy.

an obvious predisposing risk factor nor a history suggestive of aspiration, what have led to a lack of suspicion and consideration of other causes as most probable.

An accurate and timely diagnosis and appropriate treatment is crucial to prevent long-term complications.

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