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CHICKEN BONE ASPIRATION MASQUERADING AS MALIGNANCY: A CASE REPORT OF DIAGNOSTIC DILEMMA

ABSTRACT

Foreign body (FB) aspiration is rare in adults but may mimic malignancy or tuberculosis, leading to delayed diagnosis.

We report a 52-year-old chronic smoker who presented with persistent fever, cough, weight loss, and progressive dyspnoea. Clinical examination revealed signs of left lung collapse, initially suspected as endobronchial malignancy or tuberculosis. Chest CT confirmed complete collapse of the left lung with a hyperdense lesion in the main bronchus. Unexpectedly, bronchoscopy identified and removed a chicken bone lodged in the left main bronchus, leading to complete symptom resolution.

Physicians should consider FB aspiration in adults with unexplained respiratory symptoms mimicking lung cancer or tuberculosis.

Keywords: Aspiration, bronchoscopy, foreign bodies

INTRODUCTION

Foreign body (FB) aspiration, although more common in children, can also occur in adults. The risk factors for aspiration in adults include altered mental status due to alcohol or sedative use and neurodegenerative or neuromuscular disorders.¹ Adult patients with FB aspiration may present with chronic cough and haemoptysis, but frequently, they can be asymptomatic, leading to diagnostic delays and challenges.² Delayed diagnosis may lead to complications such as bronchiectasis, persistent pneumonia, or a false diagnosis of asthma or lung cancer.³ We report a case of a 52-year-old male with a FB bronchus initially considered as a lung malignancy or lung tuberculosis clinically.

CASE REPORT

A 52-year-old male presented with complaints of persistent fever and cough for the past two months, associated with progressively worsening shortness of breath over the preceding two weeks. He also reported constitutional symptoms, including significant weight loss and night sweats. The patient was a chronic smoker with a 40-pack-year history but had no history suggestive of foreign body aspiration or any predisposing illness. On examination, the patient appeared ill-looking with drooping of the left shoulder and rib crowding on the left side of the chest. Palpation revealed deviation of the trachea to the left. On percussion, dullness was elicited over the left hemithorax, and auscultation demonstrated markedly decreased vocal resonance in the same area.

These clinical findings were strongly suggestive of left lung collapse. Because of his smoking history, constitutional symptoms, and examination findings, a provisional diagnosis of left lung collapse secondary to an endobronchial malignancy was made, with endobronchial tuberculosis considered as a differential. Chest X-ray revealed complete collapse of the left lung. (Figure 1)



Figure 1: Chest X-ray showing complete collapse of the left lung

A CT scan of the chest further supported this impression, showing complete collapse of the left lung with a hyperdense lesion obstructing the left main bronchus. (Figure 2)

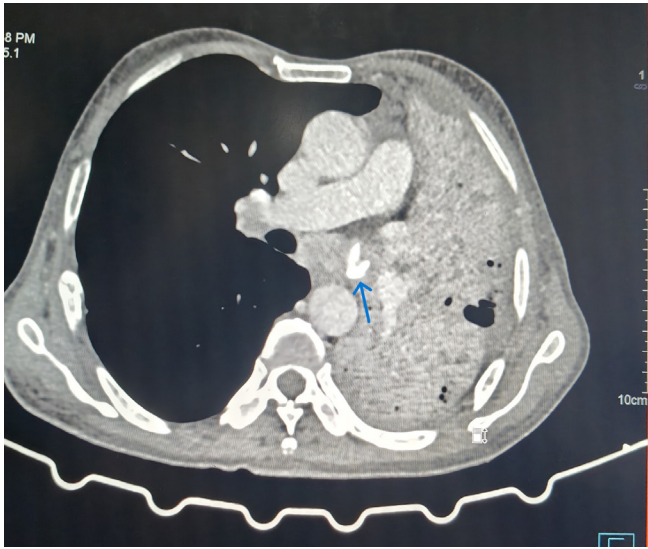


Fig. 2: CT scan showing intraluminal hyperdensity with complete collapse of the left lung.

However, bronchoscopy revealed an unsuspected finding; a chicken bone lodged in the left main bronchus, which was successfully removed. (Figure 3 and Figure 4)



Figure 3: Bronchoscopic image revealing foreign body (chicken bone) in left main bronchus.



Figure 4: Chicken bone extracted through bronchoscopy.

This was particularly unusual, as foreign body aspiration is rarely seen in adults without a suggestive history, and its presence in the left bronchus is even less common. The case thus represented an undiagnosed and unsuspected foreign body aspiration mimicking malignancy.

DISCUSSION

Foreign body aspiration is a serious problem with a wide range of clinical presentations. It can present acutely with cough, cyanosis, dyspnea, stridor, and wheezing or remain occult, causing a delay in diagnosis ranging from hours to years.⁴ We could not assess the duration as the patient denied any history of aspiration. A study done by Ma et al. found that the most common foreign body aspirated was bone, as in our case, followed by food (including nuts), dental prosthesis, and metallic objects.²

An occult foreign body lodged in the tracheobronchial tree may present as pneumonia, atelectasis, or even lung cancer, both clinically and radiologically.⁵ Chronic lodging of FB may cause complications such as severe parenchymal inflammation, bronchiectasis, or bronchial stenosis.⁵ These changes are often irreversible; thus, early diagnosis and management should be done to prevent these complications. For early diagnosis, radiological investigations should be performed in all suspected cases of FB aspiration. According to a retrospective study done by Soysal et al., common radiological findings include radio-opaque FB, air trapping, atelectasis, infiltration, and consolidation, and are most commonly seen in the right lower lobe. Chest CT scans can be performed if there is a strong index of suspicion and risks of complications are present.⁶

Fiberoptic bronchoscopy is another method for directly visualizing the FB, and it also serves a therapeutic purpose, with some of the indications being radio-opaque FBs, non-asphyxiating FBs, and unilateral obstruction.⁶ If the FB is located in the periphery, diagnosis or removal using bronchoscopy is not possible; in that case, thoracotomy is the treatment of choice.^{5,7} We successfully managed the case using bronchoscopy. After the removal of the FB (chicken bone) patient was relieved of all the complaints he had earlier.

CONCLUSION

Foreign body aspiration, although common in children, can also occur in adults, especially if co-morbidities such as alcohol drinking are present, as in our case. Physicians need to be aware that FB can mimic conditions such as lung cancer both clinically and radiologically.

REFERENCES

1. Afghani R, Khandashpour Ghomi M, Khandoozi SR, Yari B. Neglected foreign body aspiration mimicking bronchial carcinoma. *Asian CardiovascThorac Ann.* 2016 Jul;24(6):601–3.

2. Ma W, Hu J, Yang M, Yang Y, Xu M. Application of flexible fiberoptic bronchoscopy in the removal of adult airway foreign bodies. *BMC Surg.* 2020 Dec;20(1):165.
3. Yilmaz A, Akkaya E, Damadoglu E, Gungor S. Occult bronchial foreign body aspiration in adults: analysis of four cases. *Respirology.* 2004 Nov;9(4):561–3.
4. Yurdakul AS, Kanbay A, Kurul C, Yorgancılar D, Demircan S, Ekim N. An occult foreign body aspiration with bronchial anomaly mimicking asthma and pneumonia. *Dent Traumatol.* 2007 Dec;23(6):368–70.
5. Oka M, Fukuda M, Takatani H, Nakano R, Kohno S, Soda H. Chronic Bronchial Foreign Body Mimicking Peripheral Lung Tumor. *Intern Med.* 1996;35(3):219–21.
6. Soysal O, Kuzucu A, Ullutas H. Tracheobronchial foreign body aspiration: A continuing challenge. *Otolaryngol Neck Surg.* 2006 Aug;135(2):223–6.
7. Alharthi BJ, Masoodi I, Almourgi MA, Alzahrani S. Occult foreign body in the lung mimicking bronchogenic carcinoma. *BMJ Case Rep.* 2014 Dec 17;2014:bcr2014207438.

