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A wheezy man with a bony abnormality

Lindsey M Rolfe, Charlotte F J Rayner

A 56-year-old man presented to the chest clinic with worsening wheeze. His general practitioner had diagnosed asthma 3 years previously. At the time of presentation, he was taking inhaled terbutaline as required and budesonide 400 µg bid. Prednisolone 15 mg daily had been added following a recent exacerbation. He had been unable to work for 6 months owing to frequent attacks of asthma. He had stopped smoking 4 years previously but before this had had a 20 pack year history. On examination there was mild bilateral wheeze. Pulmonary function tests showed an obstructive pattern without significant reversibility. Chest X-ray showed hypertransradiancy of the left lung with normal appearance of the left pulmonary artery (figure 1). A computed tomography (CT) scan was performed (figure 2).

Figure 1 X-ray of the chest showing hypertransradiancy of the left lung

Figure 2 CT scan of the thorax at the level of the left main bronchus

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Questions

- 1 What does the CT scan show?
- 2 How would you further investigate and manage this patient?

Answers

QUESTION 1

The thoracic CT scan shows a densely calcified lesion within the proximal part of the left main bronchus.

QUESTION 2

The next investigation was flexible bronchoscopy which confirmed the presence of an inflamed, non-segmental lesion in the left main bronchus. Biopsy of the lesion showed granulation tissue with areas of calcification. At rigid bronchoscopy, two small pieces of bone were removed. At this point, the patient recalled choking on a chicken bone at around the same time that asthma had been diagnosed.

Outcome

The patient's symptoms subsequently improved and X-ray changes resolved. Bronchodilators and anti-inflammatory medications have been discontinued, lung function tests are normal, and the patient has returned to work.

Discussion

The diagnosis of foreign body aspiration is often overlooked in adults, especially when, as

in this case, the clinical syndrome is suggestive of another, more common condition. The history of choking on a bone was only elicited after the bone had been retrieved and was shown to the patient. Previous reports suggest that 25% of adults with foreign body aspiration never recall the actual event.¹ Whilst the anatomy of the bronchial tree favours aspiration to the right, it is not unusual for a foreign body to lodge in the left side,¹⁻⁴ as in this case. In our patient there were no factors, such as trauma, sedation, or neurological deficit, which would have predisposed to aspiration.

Removal of the foreign body at rigid bronchoscopy is the preferred treatment, although some advocate the use of the flexible bronchoscope¹ and, in extreme cases, thoracotomy is necessary. It is important to have a high index of suspicion in considering the diagnosis of foreign body aspiration, so that prolonged morbidity and ineffective treatment are avoided.

Final diagnosis

Foreign body aspiration with chronic bronchial inflammation.

Keywords: asthma; foreign body aspiration

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Electrocardiographic abnormalities in an elderly woman

P R T Atkinson, G B Turner, N A Herity

An elderly woman was admitted as an emergency from home. Figure 1 shows an electrocardiogram (ECG) taken at the time of admission.

Figure 1 Admission ECG

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Questions

- 1 What electrocardiographic abnormalities are seen in figure 1?
- 2 What is the diagnosis?