



Images in medicine

The pneumothorax and the pea – Unusual presentation of foreign body inhalation



El neumotórax y el guisante: presentación rara de inhalación de cuerpo extraño

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79-year-old male, former smoker, presents to the emergency room with dyspnoea and pleuritic thoracalgia, along with desaturation and diminished left breath sounds.

Chest radiograph revealed a large left pneumothorax and hilar atelectasis (Fig. 1a). Despite thoracic drainage, it persisted after 5 days (Fig. 1b) and Chest CT revealed obstruction of the left upper lobe bronchus (LULB) (Fig. 2 - arrow).

Patient recalled an episode of choking while eating peas but did not clearly associate it with beginning of symptoms.

Flexible videobronchoscopy (FVB) revealed a green smooth foreign body (FB), probably a pea (Fig. 3a), totally occluding the LULB surrounded by friable mucosa easily bleeding, not allowing its removal.

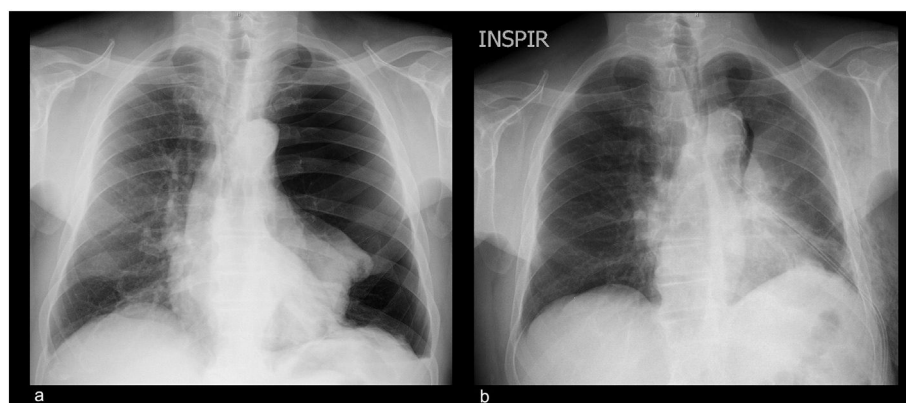


Fig. 1. Chest radiograph: a) Admission - left pneumothorax and atelectasis; b) 5 days later - chest tube placed on the left hemithorax with partial pulmonary expansion, persistence of small pneumothorax, atelectasis and signs of subcutaneous emphysema.

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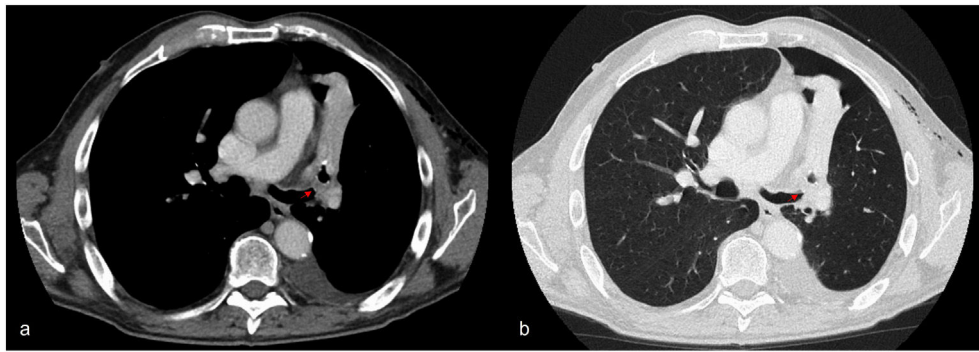


Fig. 2. Chest CT (axial images, mediastinal (a) and lung (b) window): Left hydropneumothorax with atelectasis of the left upper lobe. A rounded shape foreign body is obstructing the left upper lobe bronchus (arrow).

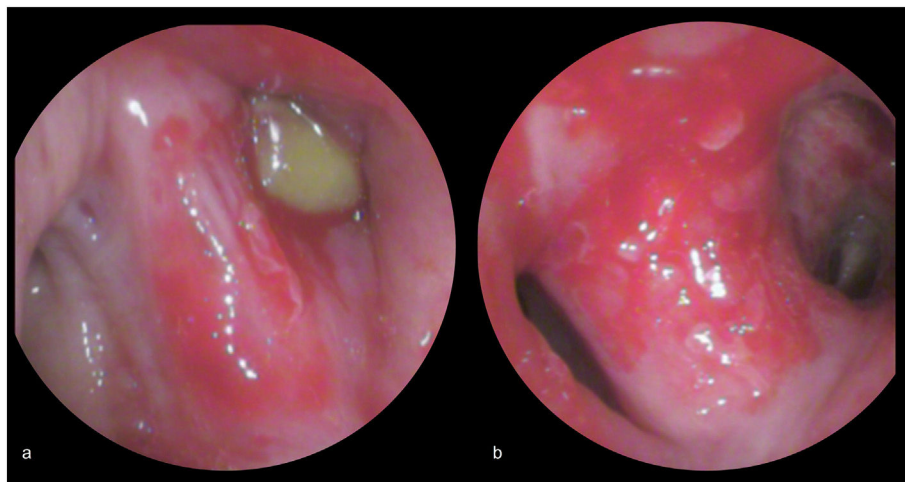


Fig. 3. Videobronchoscopy photographs at secondary carina of the left main bronchus: a) first evaluation - total obstruction of the left upper lobe bronchus by a green pea, oedema and hyperaemia of the adjacent mucosa; b) reevaluation - patency of lobar and segmental bronchi, with enlargement of secondary carina by oedema of the mucosa.

However, after productive cough patient reported clinical improvement, and subsequent exams revealed resolution of atelectasis and obstruction, remaining the oedema and hyperaemia of bronchial mucosa (Fig. 3b).

In adults, FB inhalation is more frequent over 75 years-old. Patients may not recall or value the episode of aspiration, requiring high level of suspicion and careful clinical history. Symptoms may arise from complications like atelectasis or, rarely, pneumothorax. Further investigation should be warranted in the presence of non-resolving symptoms. FVB allows identification of FB and removal in most cases.

Ethical considerations

Images presented do not include any data or detail that allows patient identification. Clinical information was resumed and anonymised. This publication is in accordance with the Declaration of Helsinki.

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Declaration of Competing Interest

None.