Migratory pushpin in the tracheobronchial tree

Laura Azurara, Conceição Lemos

Department of Pediatrics,
Hospital de São Francisco
Xavier, Centro Hospitalar de
Lisboa Ocidental, Lisbon,
Portugal

Correspondence to
Dr Laura Azurara,
laura.azurara@gmail.com

Accepted 5 April 2016

DESCRIPTION

A healthy 10-year-old boy presented to the emergency department, with a 3-day history of cough and odynophagia, which started after eating squid. On examination, he had decreased breath sounds in the lower half of the right lung. The physical examination was otherwise unremarkable. Chest X-ray showed a consolidation of the right lower lobe with small pleural effusion, and a foreign body

in the right bronchus (figure 1A). The patient was admitted for antibiotic treatment and bronchoscopy, but had a sudden onset of coughing with respiratory distress, pale skin and cold extremities, for a few seconds. A subsequent chest X-ray performed after this episode showed that the foreign body had migrated to the left bronchus (figure 1B). Rigid bronchoscopy revealed a pushpin in the left main bronchus, which was removed. Recovery was uneventful. Follow-up X-ray was normal.

Tracheobronchial foreign body aspiration (FBA) is a significant cause of morbidity and mortality in childhood.¹ In the absence of a witnessed episode of choking, which is the most sensitive predictor of FBA, the diagnosis can be significantly delayed, hence predisposing to complications such as recurrent or persistent pneumonia, lung abscess, bronchiectasis and lung collapse.²

Rigid bronchoscopy is the standard of care for children with FBA. It is known that tracheobronchial foreign bodies may displace and migrate during bronchoscopy.³ However, foreign body migration irrespective of medical procedures is very rare, particularly for sharp objects, which have a tendency to become fixed to the mucosa.³

FBA presents diagnostic and management challenges. It is mandatory to have a detailed clinical history and a high index of suspicion.

Figure 1 (A) Chest radiograph of the patient, showing a foreign body on the right bronchus, and consolidation/collapse of the right lower lobe with a small pleural effusion. (B) A later chest radiograph showing the foreign body now in the left bronchus, and consolidation in the right lower lobe.

Learning points

- ▶ In the absence of a witnessed episode of choking, the diagnosis of foreign body aspiration (FBA) can be significantly delayed, hence predisposing to complications.
- ▶ Foreign body migration irrespective of medical procedures is very rare, particularly for sharp objects, which have a tendency to become fixed to the mucosa.
- ▶ Rigid bronchoscopy is the standard of care for children with FBA.

Contributors LA drafted the article. CL revised it critically for important intellectual content. Both authors were involved in the patient's care and contributed to the conception, design, acquisition, analysis and interpretation of the information. Both authors gave final approval of the version published.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Louie MC, Bradin S. Foreign body ingestion and aspiration. *Pediatr Rev* 2009;30:295–301.

To cite: Azurara L, Lemos C. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2016-214857

- 2 Mu L, He P, Sun D. The causes and complications of late diagnosis of foreign body aspiration in children. *Arch Otolaryngol Head Neck Surg* 1991; 117:876–9.
- 3 Ludemann JP, Hughes CA, Holinger LD. Management of foreign bodies of the airway. In: Shiels TW, Locicero J, Ponn RB, eds. *General thoracic surgery*. 5th edn. Philadelphia, PA: Lippincott Williams & Wilkins, 2000:853–62.

Copyright 2016 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow