


Paediatric foreign body aspiration and endobronchial granuloma

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Key message

Paediatric foreign body aspiration can result in pulmonary complications including the formation of endobronchial granuloma, which can be managed conservatively or via surgical or bronchoscopic intervention. This case highlights the importance of having a high index of suspicion for foreign body aspiration in patients with persistent symptoms or abnormal imaging.

KEYWORDS

foreign body, granuloma, paediatrics

CLINICAL IMAGE

A male child aged approximately 2 years presented to the paediatric respiratory clinic with a three-month history of persistent wheeze post admission for community-acquired pneumonia. He was discharged on Fluticasone propionate (Flixotide) 50 µg two puffs bd. On examination, a polyphonic wheeze was present. Hence, montelukast 4 mg nocte was also prescribed. Chest x-rays showed persistent air space changes in the right mid and lower zones (Figure 1A) prompting a CT chest with endoluminal nodules noted within the right main bronchus (Figure 1B). A flexible bronchoscopy performed post the CT chest demonstrated four discrete polypoidal lesions in the right main bronchus (Figure 1C), with one lesion occluding the RB7 segmental bronchus, and no foreign body was visualized. Histological examination of the lesions showed severely inflamed stroma with multiple nearly confluent granulomas suggestive of a previous foreign body aspiration. No pathogens were cultured from the biopsy nor bronchoalveolar lavage. The family in retrospect recalled an incident where the patient sniffed and chewed animatedly on popcorn, which could account for the presentation. The patient received a seven-day course of oral prednisolone (1 mg/kg) after the above investigations and remained on Flixotide and montelukast. He

had regular outpatient clinic reviews with complete resolution of his symptoms after almost 18 months post presentation. On interval chest imaging, the right-sided air space changes improved and normalized by 2 years post initial review (Figure 1D). A repeat flexible bronchoscopy performed two and a half years later revealed complete resolution of the granulomatous lesions (Figure 1E). Paediatric foreign body aspiration may result in pulmonary complications.¹ Both surgical and bronchoscopic intervention have been described in managing larger endobronchial lesions.^{1,2} In this case, complete resolution of the granulomatous lesions was achieved with conservative management.¹

AUTHOR CONTRIBUTIONS

Adeline Y. L. Lim was involved in the acquisition of data, manuscript preparation and final approval. Sadasivam Suresh was involved in the manuscript preparation and final approval.

CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

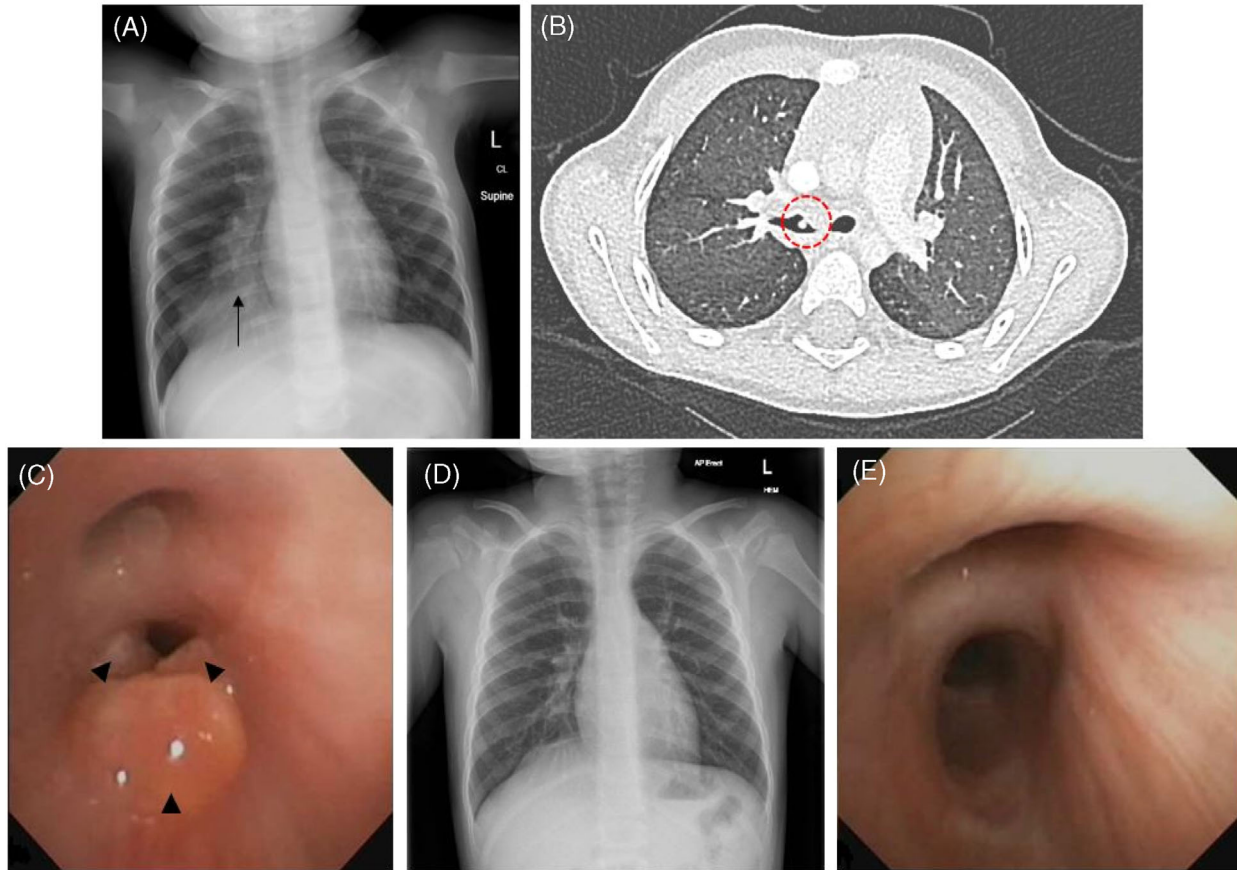


FIGURE 1 (A) Chest radiograph on presentation revealing increased opacification of the right middle and lower zones (black arrow). (B) CT chest demonstrating an endoluminal nodule within the right main bronchus (marked with red circle). (C) Three of the four discrete polypoidal lesions noted in the right main bronchus on flexible bronchoscopy (black arrowheads). (D) Chest radiograph at 2 years post initial review revealing resolution of right middle and lower zone opacities. (E) Resolution of the lesions on repeat flexible bronchoscopy at 2.5 years post presentation.

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and accompanying images.

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