EMERGENCY CASEBOOK

Not the typical winter cough

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We report on a young adult with a foreign body lodged in the right main bronchus for at least 5 days, with no alleged recollection of aspiration despite the size and shape of the object, which was removed successfully by rigid bronchoscopy.

An 18-year-old, otherwise fit and healthy, male presented to the accident and emergency department at a district general hospital with a history of cough of sudden onset, persistent for 5 h before presentation. The patient was discharged home with the working diagnosis of viral infection, but returned to the accident and emergency department 5 days later unwell, complaining of persisting cough, with sputum and streak of haemoptysis. Chest x ray showed atelectasis of the middle and lower lobes, and a foreign body in the right main bronchus.

A flexible bronchoscopy performed at the DGH revealed what appeared to be a dental filling. Due to inability to retrieve the foreign body, the patient was transferred to our regional cardiothoracic unit.

On arrival, his temperature was 37.6°C, PR 74 bpm and arterial oxygen saturation was 98% on air. He was shivery and obtund. His full blood count revealed a high white cell count with neutrophilia, and chest x ray showed what appeared to be a nail, consistent with the patient's occupation as a scaffolder. Despite thorough questioning and specific enquiry about a choking event, the patient denied any occurrence.

At rigid bronchoscopy, a drawing pin was retrieved from the bronchus intermedius with evacuation of copious amounts of pus, which was sterile on microbiological assay.

Complete inspection of the tracheobronchial tree after removal of the foreign body did not reveal any evidence of trauma. A postoperative chest x ray excluded a pneumothorax. The foreign body was later presented to the patient who denied any recollection of the event.

His postoperative recovery was uneventful and he was referred back to his local hospital on postoperative day 2.

DISCUSSION

Although foreign body aspiration most commonly occurs in children,¹⁻³ they also occur in adults. Foreign body aspiration in adults is thought to be more common in the event of alcohol and drug misuse, underlying neurologic disease, poor dentition and advanced age.⁴ However, tracheobronchial foreign body aspiration in adults can occur in various clinical settings and high clinical index of suspicion is necessary for diagnosis, even in the absence of significant history.

In this case, the nature of the foreign body and its radiological properties made the diagnosis certain (most foreign bodies are radiolucent and indirect radiological findings must often be obtained in most cases).

In any case, chest x rays alone are neither sensitive nor specific enough to exclude tracheobronchial foreign bodies, and low threshold for bronchoscopy should be instigated, given it is a safe procedure, and it can prevent the potentially disastrous consequences of an undiagnosed inhaled foreign body. Delayed diagnosis may lead to recurrent pneumonia, bronchiectasis and

Figure 1 The set-up used by the patient during drug misuse.

lung abscess. In these situations bronchoscopic removal may be difficult, and it may be necessary to perform thoracotomy, removal of the foreign body via bronchotomy or segmental/lobar resection of the affected lung.

This case report is unique in that it highlights the importance of understanding the possible mechanisms involved in aspiration in adults with a potential background of alcohol or drug misuse. Figure 1 clearly identifies the set-up used in this case where the patient tried to optimise the maximal use of the substance being smoked by attaching the drawing pin to its side. In this instance, under a suboptimal level of alertness, aspiration of the pin can be clearly understood, and therefore although a clear-cut history may not be obtained from the patient, this stresses the importance of having good background knowledge of possible mechanisms and a high index of suspicion in such cases.

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