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## CORRESPONDENCE

# Nebuliser solution bottle cap presenting as a foreign body in the subglottic airway

*To the Editor:*

A 58-yr-old obese male with obstructive sleep apnoea and asthma, for which he used nebulised bronchodilators, presented with a 4-month history of wheeze and stridor on both inspiration and expiration. There was a small amount of fresh haemoptysis if he coughed vigorously. A plain chest radiograph was normal. The patient was treated for an exacerbation of asthma but there was little improvement in his symptoms. A computed tomography scan was performed and a tracheal foreign body shaped like a fish bone was observed (fig. 1).

Flexible bronchoscopy revealed a limited view of the foreign object which was wedged in the subglottic portion of the trachea (fig. 2). The foreign object was penetrating the soft tissues and was not amenable to removal using biopsy forceps. It was extracted under general anaesthesia and rigid bronchoscopy. The object was found to be a plastic cap from a nebuliser solution bottle, which the patient reported last using 1 yr previously (fig. 3).

Aspiration of a foreign body is more common in children than adults. Aspiration in adults can generally be ascribed to either loss of protective reflexes in the setting of reduced level of consciousness and/or impairment of normal neuromuscular function. Unless there is an immediate severe coughing episode, symptoms

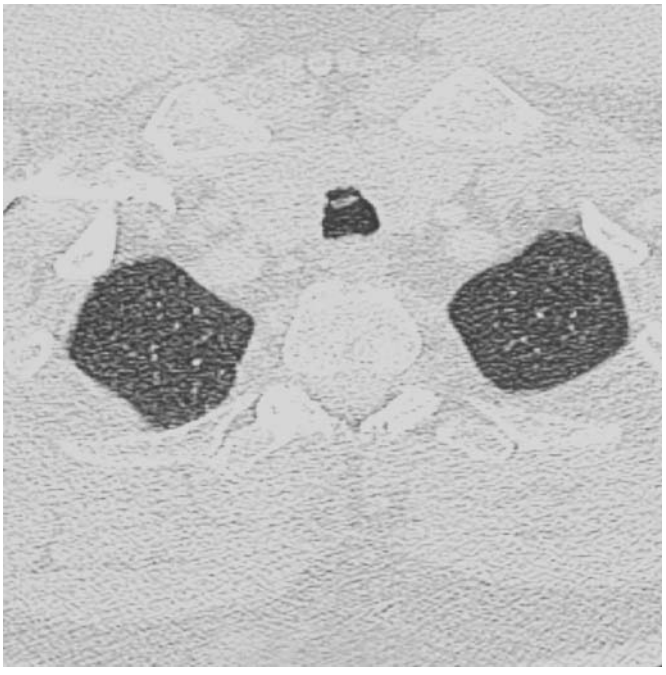

**FIGURE 1.** Computed tomography chest showing tracheal foreign body.

**FIGURE 2.** Bronchoscopy view of the foreign body.


**FIGURE 3.** The nebuliser cap.

can be nonspecific thus delaying diagnosis. This patient did not have an obvious predisposition for aspiration (*e.g.* alcohol excess), nor did he have a history to suggest the above causes.

Foreign bodies are most commonly lodged in the right bronchial tree, with animal bones, fish bones or other food material being the most commonly reported objects [1]. It seems that nebuliser apparatus has not been previously reported. Flexible bronchoscopy under local anaesthesia is the preferred procedure for both diagnosis and removal of airway foreign bodies in adults, with one study reporting a success rate of >86% [2]. Rigid bronchoscopy is reserved for cases in which the flexible bronchoscope fails. In all cases, it is recommended that a skilled operator perform either flexible or rigid bronchoscopy in the presence of a trained assistant.

Our patient presented with worsening symptoms mimicking those of asthma, which were unresponsive to treatment. As a previous case has demonstrated, an iatrogenic cause must be taken into consideration as a differential diagnosis [3].

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