

Feline pyothorax caused by tooth aspiration

A 3-year-old male entire Siamese cat presented with a 3-day history of lethargy, hyporexia and tachypnoea. There was no history of dental disease or dental procedures, nor any known trauma (although the cat was allowed outdoor access). Physical examination revealed tachypnoea, mildly increased respiratory effort, reduced right lung sounds, skin abrasions on the right shoulder region and a missing left maxillary premolar (tooth 207).

Venous blood gas, electrolyte and metabolite analysis were unremarkable. Point of care ultrasonography revealed pleural effusion, which was cytologically consistent with septic neutrophilic exudate (total nucleated cell count $22 \times 10^9/L$). The patient was started on amoxicillin-clavulanate (20 mg/kg IV TID, Augmentin; GSK). Thoracic radiographs demonstrated right sided pleural effusion, collapse and consolidation of the right lung lobes and a single mineral foreign body likely within the right mainstem bronchus. The findings are consistent with tooth aspiration leading to right lung consolidation and pyothorax (Fig 1).

Bronchoscopic retrieval was attempted but was unsuccessful due to tooth migration. The patient underwent right fifth intercostal thoracotomy, right caudal lung lobectomy and thoracostomy tube placement. The tooth was retrieved from the excised right caudal bronchus following lobectomy. One day postoperatively, the patient suffered cardiac arrest (suspected to be due to sepsis), and cardiopulmonary resuscitation

was unsuccessful. Culture of lung tissue showed growth of *Pasteurella*, *Bacteroides* and *Enterococcus* species (all susceptible to amoxicillin-clavulanate).

Tooth aspiration into the tracheobronchial tree is scarcely reported in veterinary literature. Tooth aspiration is a rare but documented complication in people, secondary to maxillofacial trauma, dental procedures or endotracheal intubation. Some tracheobronchial foreign bodies are amenable to bronchoscopic or fluoroscopic retrieval. In cases of parenchymal migration, pulmonary abscessation or pyothorax, surgical intervention may be necessary. This case demonstrates a rarely encountered bronchial foreign body in a cat, causing pyothorax, which has not been previously described in the veterinary literature.

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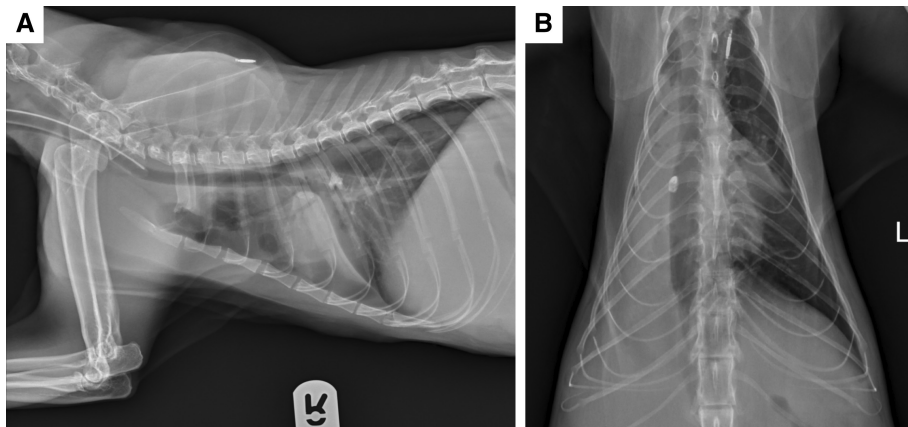


FIG 1. Right lateral (A) and dorsoventral (B) radiographs demonstrating aspiration of a tooth into the right mainstem bronchus. A mineralised opacity consistent with a feline premolar is identified to the right of midline immediately caudal to the carina at the expected location of the right mainstem bronchus. Concurrent right hemithoracic opacification is consistent with secondary near complete consolidation of the right lung and summation of right lateralised pleural fluid typical of pyothorax