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## Correspondence

# The aspiration of primary second molar at the right bronchial bifurcation



## KEYWORDS

Foreign body aspiration;  
Fiberoptic  
bronchoscopy;  
Behavior;  
Pharmacological  
management

Foreign body aspiration (FBA) refers to the inhalation or aspiration of solid or liquid objects, particles, or substances into the airway or respiratory tract, typically beyond the level of the vocal cords.<sup>1</sup> This condition commonly affects the trachea and bronchi, although it can occur in any part of the respiratory system. When a tooth accidentally falls into the trachea or bronchus, it can be a serious medical issue. Even with all precautions to reduce such occurrence, aspiration can still happen.

FBA can affect individuals of all ages, but it is common in children, especially in children between the ages 0 and 3 (up to 75 %), with a male to female ratio of 3:2.<sup>2</sup> On clinical examination, the most common findings can include cough, dyspnea, stridor, decreased breathing sounds, wheezing, and sometimes fever in late diagnosed cases. Prompt recognition and intervention are essential to prevent complications, such as pneumonia or lung damage, and to ensure the safe removal of the aspirated foreign body.

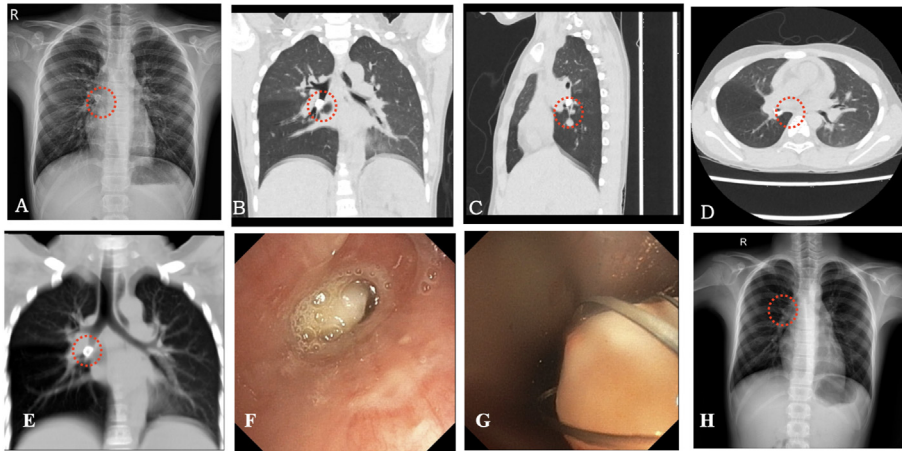
A 10-year-old male patient who accidentally aspirated his tooth that was finally removed with fiberoptic bronchoscopy (FOB) was reported. The restlessness and anxiety patient was brought to the hospital by his father and asked

for removal of the left maxillary primary second molar with severe mobility and pain. After consoling and communicating, the parents agreed with the tooth extraction procedure. Due to the severe mobility of the patient's tooth, the tooth slipped from the forceps as they were inserted. As the patient cried and inhaled, the tooth disappeared from the oral cavity. It was immediately diagnosed that the tooth had been accidentally ingested. The parents were informed and subsequent emergency measures were taken, including obtaining radiographic images. A foreign body, which was lodged in the right bronchus, was observed by the posterior-anterior chest X-ray (Fig. 1). Under general anesthesia, the tooth was retrieved by thoracic surgeon using bronchoscopy and thoracoscopy (Fig. 1). Patient was discharged on oral antibiotics and at a follow-up phone call, the patient reported that he had been symptom free since his procedure.

To prevent such incidents, it is crucial for dental practitioners to implement comprehensive safety measures during all dental procedures. Specifically, they should ensure effective local anesthesia to prevent patient movement due to pain.<sup>3</sup> Maintaining proper posture and balance, avoiding unstable positions or obscured treatment views, and thoroughly inspecting and securing all instruments are essential to prevent accidents.<sup>4</sup> When it is challenging to manage a child's dental behavior effectively, the utilization of medications for behavior management during dental procedures in pediatric patients is a preferred approach. Pharmacological management is an essential element of pediatric dental practice. This emphasizes the importance of exercising extreme caution when conducting medical and dental procedures in the oropharyngeal region to minimize the risk of foreign body aspiration.

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**Fig. 1** Localization of the aspirated left maxillary primary second molar using chest X-rays and thoracic computed tomography. (Red circle) (A) Chest X-ray. (B) Frontal view of the computed tomography. (C) Lateral view of the computed tomography. (D) Cross-sectional view of the computed tomography. Tooth is visible and lodged at the right bronchial bifurcation in the patient. (E) Localization through radiographic imaging. (F) Confirmation of its position via endotracheal bronchoscopy. (G) Removal of the tooth using bronchoscopic and thoracoscopic forceps. (H) Chest X-ray after the removal of the tooth. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

## Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

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