

## Infant feeding tube as rescue endotracheal tube in an infant with an aerodigestive foreign body

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To the Editor:

Aerodigestive foreign bodies (FBs) are a common cause of morbidity and mortality in children, especially those between 1 and 3 years old [1–3]. A 10-kg, 1-year-old male presented for the retrieval of a small button battery that had been accidentally ingested 2 days earlier. The patient had symptoms of odynophagia and excessive drooling, but no visible signs of respiratory distress. X-ray showed a radioopaque FB in the upper part of the esophagus, with subglottic airway compromise (Fig. 1).

Endoscopic removal of the FB was planned under general anesthesia. The patient received 2 mg of intravenous (i.v.) dexamethasone, 0.1 mg i.v. glycopyrrolate, and adrenaline nebulization prior to anesthetic induction. In the operating room, the pediatric difficult-airway cart was present. Anesthesia was induced with sevoflurane 2–6 % and oxygen. After successful mask ventilation, 10 mg i.v. suxamethonium and 20 mcg i.v. fentanyl were administered. On laryngoscopy, although a Cormack–Lehane grade 1 view was obtained, a 3.0-mm internal diameter (ID) uncuffed endotracheal tube (ETT) (Romsons International, Agra, India) could not be passed beyond the vocal cords. As no smaller

ETTs were available, an 8 French (Fr) infant feeding tube (IFT, 2.4-mm OD; Romsons International) with a tube connector from a 3.5-mm ID ETT was prepared, and the trachea was successfully intubated. There was no leak on auscultation. Anesthesia was maintained with 1–1.5 % sevoflurane, 50 % air, and oxygen. The FB was visualized in the upper esophagus, and was retrieved through the rigid esophagoscope, which took approximately 4 min. After removal of the FB, a significant peritubal leak was present, so the IFT was changed for a 3.5-mm ID ETT. The total surgical time was 45 min. Postoperative care included i.v. antibiotics, dexamethasone, adrenaline, and bronchodilator nebulization. The patient had an uneventful recovery.

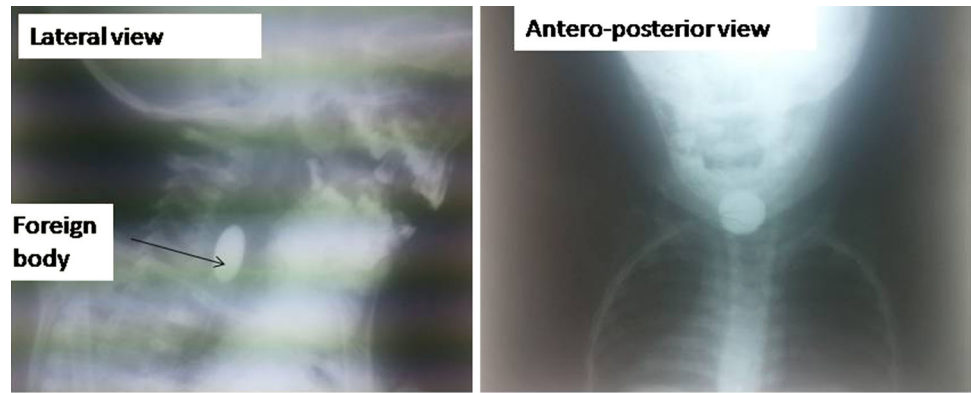
Esophageal FBs tend to displace the soft cricoid lamina forward, possibly leading to a compromised subglottic airway. The trachea of the infant is narrowest at the subglottic region, and the mechanical compression of an FB may further reduce its diameter. Intraoperative concerns in this case included avoidance of light anesthesia, airway compromise, and cardiac arrhythmias [2]. Securing the airway with an ETT was important in order to prevent aspiration. In our case, we used the 8 Fr IFT (2.4-mm OD) as a rescue ETT, which allowed ventilation, and helped to avoid an emergency tracheostomy.

**Conflict of interest** None.

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**Fig. 1** Soft-tissue neck X-ray (lateral and anteroposterior views) shows a radioopaque foreign body in the upper part of the esophagus with subglottic airway compromise



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