



# SUBCUTANEOUS EMPHYSEMA IN LIFE-THREATENING AIRWAY OBSTRUCTION: A CASE REPORT OF RARE PRESENTATIONS OF FOREIGN BODY ASPIRATION IN PEDIATRICS.

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## INTRODUCTION

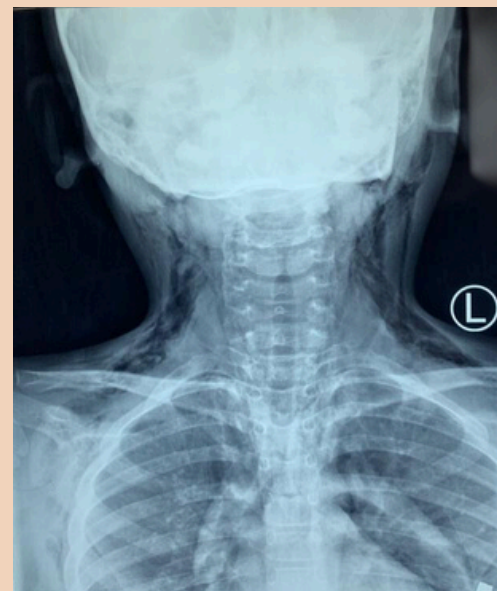
Tracheobronchial foreign body aspiration in children can present with varying degrees of severity, from mild cases to life-threatening emergencies. The aspiration of pen caps is particularly common among school-aged children and requires prompt intervention to prevent serious complications.

## CASE DESCRIPTION

We report a 7-year-old Malay girl with a history of tonsillectomy who experienced choking while playing with her younger brother. She stated that her brother inserted a foreign body into her mouth, leading to bluish discoloration of her lips and vomiting. Upon arrival at the Emergency Department, she exhibited stridor, had an oxygen saturation of 88%, and displayed subcutaneous emphysema in her neck and chest areas.

The patient was immediately referred to the Otorhinolaryngology (ORL), pediatric, and anesthesiology teams. Emergency direct laryngoscopy revealed a foreign body lodged in her left main bronchus; despite multiple attempts of removal, the foreign body remained stuck at the cricoid area. The patient was urgently transferred to a tertiary hospital, where direct laryngoscopy and bronchoscopy identified the rear part of a pen cap lodged in the right secondary bronchus. Despite multiple attempts of removal, the foreign body remained stuck at the cricoid narrowing. Ultimately, it was successfully extracted via tracheostomy.

The patient was monitored for five days and was discharged in good condition.



**Figure 1:** The chest x ray showed subcutaneous emphysema over neck and chest.



**Figure 2:** The pen cap removed from the patient.

## DISCUSSION

The presentation of foreign body aspiration (FBA) can vary from coughing, wheezing, and recurrent pneumonia to respiratory distress. Occasionally, FBA may present with subcutaneous emphysema. FBA can lead to significant airway distress due to the narrowness of pediatric airways if not treated promptly. Bronchoscopy is the most effective method for diagnosing and removing such foreign bodies; however, the smaller airways in pediatrics often complicate the procedure, especially in the cricoid area. Edema in the surrounding tissues can worsen the condition and hinder removal efforts. If bronchoscopy fails, surgical intervention, such as tracheostomy, may be necessary to secure the airway.

## CONCLUSION

1. Subcutaneous emphysema is a rare presentation of FBA.
2. The cylindrical shape of the pen cap allows it to easily become lodged in the cricoid area and tracheal ring.
3. While bronchoscopy is preferred for extraction, readiness for surgical intervention is essential if initial attempts fail.

## REFERENCE

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