

## Case Report

# Chronic retained esophageal foreign body: a case report

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### ABSTRACT

Chronic esophageal foreign bodies (CEFB) are associated with a high incidence of morbidity and mortality in adults. However, the presentation, management and outcome of chronic esophageal foreign bodies in children are not well described. Seventy-six percent of patients presented with a primary complaint of respiratory symptoms, with respiratory distress being the most common followed by asthmatic symptoms and cough. Twenty-two percent of patients had primarily gastrointestinal symptoms including nausea, vomiting and dysphagia. We present a case report of 2 year 6 month old male with 3 months history of cough and vomiting later diagnosed to be a case of upper esophageal foreign body impaction.

**Keywords:** Cough, Foreign body, Esophagus, Endoscopy

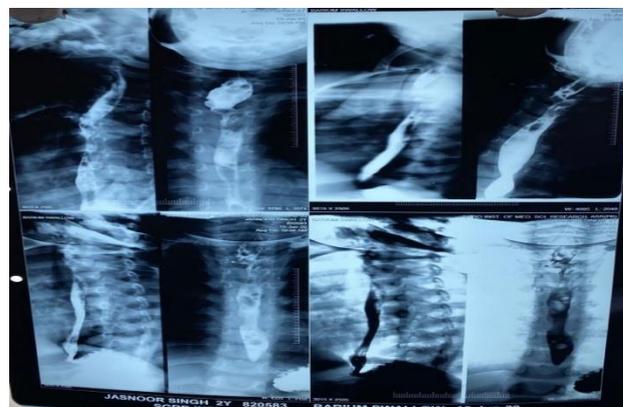
### INTRODUCTION

The natural tendency of children to explore their environment orally makes the ingestion of FBs common, especially in those less than six years old. Most of the times children find small things attractive and prefer mouthing those objects. Recurrent upper respiratory tract infections secondary to esophageal foreign body ingestion is a lesser common occurrence. Most of the times such cases go undiagnosed due to child being non-compliant. The diagnosis can be missed or delayed when the presenting symptoms are mainly respiratory. This work has been reported in line with the SCARE criteria.<sup>1</sup>

### CASE REPORT

A 2 year 6 month-old male came to OPD with complains of cough, vomiting and regurgitation of solids. He had a three months history of recurrent bouts of cough and congestion. There was no history of ingestion of foreign body witnessed by the parents. He was treated on multiple occasions with corticosteroid and antibiotics. However, cough got progressively worse. During the last

48 h before admission, he had repeated attacks of cough, vomiting and dysphagia. There was no history of fever, weight loss and drooling of saliva. On examination, he had a temperature of 38.5 °C and oxygen saturations of 95% in air. Respiratory rate was of 30/minute and heart rate of 136/minute.



**Figure 1: Barium meal images.**

On auscultation crepitations and diffuse wheeze was present. Cardiovascular examination was normal. Blood tests showed a microcytic hypochromic anaemia and eosinophilia with AEC of 1100cells/cumm. C-reactive protein and chest- X-ray was normal. The child was managed with intravenous cefotaxim 100 mg/kg/day, nebulised with salbutamol and budesol. The improvement was slow and partial. ENT call was done and endoscopy advised. Barium swallow was done which suggested constriction of upper esophagus with proximal hold up of oral contrast. (Figure 1).



**Figure 2: Endoscopy images.**



**Figure 3: Object retrieved after endoscopic removal.**

Endoscopy was done which revealed stricture in upper esophagus. (Figure 2). Post dilatation a foreign body (plastic self-adhesive shooting stick) was retrieved. (Figure 3). There was redness in the mucosa along with ulceration. Repeat dilatation was done after 3 weeks. At follow up the symptoms were relieved.

## DISCUSSION

Foreign body (FB) ingestion is a frequent and serious problem in children who can present with variable symptoms. It occurs most often in those aged 1 to 3 years because of increasing curiosity and their natural instinct to put everything in the mouth.<sup>2</sup> A chronic FB that is

retained in the esophagus more than one week is rare. It presents differently, and the respiratory symptoms are more common than gastrointestinal symptoms.<sup>3</sup>

Clinicians should keep in mind that an esophageal FB can lead to atypical symptoms that simulate asthma, croup, bronchitis, or bronchopneumonia. Our patient had persistent cough and wheeze which failed to respond to asthma treatment.

Most commonly described esophageal FBs are coins, and other ingested objects include toy parts, jewels, batteries, needles, pins, balls, and buttons.<sup>4,5</sup> The majority of FB ingestions occur in the pediatric population, with a peak incidence between six months and six years of age.<sup>6,7</sup> The majority of impacted FB is found just underneath the cricopharyngeal muscle because of the weak peristalsis in that region. The rest are found in the physiological narrowing of the esophagus at the level of the aortic arch, the left main stem bronchus and the lower esophageal sphincter.<sup>8,9</sup> The degree of damage depends on the nature of the impacted EFB, duration, pre-existing esophageal/tracheal pathology, site of impaction and the age of the child.<sup>10</sup> The management of esophageal foreign bodies is removal by means of a rigid or flexible endoscope wherever possible. When endoscopic retrieval is not possible, immediate open surgical extraction should be performed.<sup>11</sup>

## CONCLUSION

The facts that the accident of ingestion was not witnessed, and the child did not improve by medications. Also, foreign body was covered by granulation tissue hence not identifiable during endoscopy made the diagnosis difficult. In conclusion, persistent cough with wheeze with no obvious cause should arouse the suspicion of the esophageal foreign body in children.

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