CASE REPORT

Upper oesophageal foreign body with acute respiratory distress

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drshasank_aiims@yahoo.co.in**SUMMARY**

Foreign body (FB) ingestion, a common and serious problem in children can present with a wide variety of symptoms. Oesophageal FB leading to severe acute respiratory distress is uncommon and requires urgent surgical intervention. We report an 8-month-old female child who presented with severe respiratory distress to casualty and was found to have a FB in her upper oesophagus.

BACKGROUND

Foreign body (FB) ingestion is a common and serious problem in children which, if not treated in time, can be fatal and lead to sudden death. Oesophageal FB leading to severe acute respiratory distress though uncommon is a serious condition requiring urgent surgical intervention.

CASE PRESENTATION

Our case is an 8-month-old female child who presented to paediatric casualty with a 12-h history of severe respiratory distress. A history of FB ingestion could not be elicited even after repeated query. The child was taking treatment for pneumonitis and fever for last 48 h by local medical practitioner. The child was completely exhausted and severely dehydrated. She was stabilised in the casualty and immediately taken up for surgery after obtaining informed written consent from the parents.

INVESTIGATIONS

Chest X-ray carried out in casualty showed a large radio-opaque shadow occupying upper part of oesophagus (figure 1). No consolidation or collapse lung segment was seen.

TREATMENT

Under general anaesthesia with endotracheal intubation and tube fixed towards left side, rigid oesophagoscopy was performed with 3 Fr sheath and 0° telescope. A metallic ring was seen at cricopharynx with sharp tail pointed towards tracheal wall. FB was removed carefully by alligator optical forceps by holding its tail to avoid injury on the wall of oesophagus and trachea. The shape and size of FB is shown in figure 2. Intraoperatively presence of copious thick secretion along with oedematous upper oesophagus was noted. FB was lying upside down with tail of FB impinging upon posterior wall of trachea leading to tracheal occlusion and respiratory distress of sudden onset. Postoperatively, the child was managed with ventilator support for 48 h

Figure 1 Chest X-ray anteroposterior view showing the radio-opaque foreign body with serrated margin in upper oesophagus.

Figure 2 Foreign body (metallic ring) with 1.5 cm long, sharp tail and serrated body.

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along with third-generation cephalosporin, aminoglycoside and anaerobic coverage. Vigorous chest physiotherapy was given in the postoperative period.

OUTCOME AND FOLLOW-UP

The child was discharged in satisfactory general condition to follow-up in paediatric surgery outpatient department.

DISCUSSION

FB ingestion can present with a wide variety of symptoms. Although it is sometimes asymptomatic, mostly there exists cough, dyspnoea, haemoptysis and even respiratory arrest (box 1).^{1–3} Long-standing oesophageal FB may cause failure to thrive or recurrent pneumonia. The majority of FB ingestions occur in the paediatric population, with a peak incidence between 6 months and 6 years of age.^{4–7} Clinical history and radiological examinations are enough for the diagnosis but in some cases, it is difficult to diagnose even by rigid oesophagoscopy and bronchoscopy. A high index of suspicion must be maintained when the child presents to a medical facility with symptoms related either to the respiratory or gastrointestinal tract. Respiratory distress is the most common manifestation of FB in oesophagus in neonates.⁸ FB oesophagus causes less morbidity and mortality as compared with FB bronchus. Although most commonly described oesophageal FBs are coins, other ingested objects include toy parts, jewels, batteries, needles, pins, balls and buttons. The most common method to demonstrate oesophageal FB is by biplane radiographs. Radiographs can confirm the location, size, shape and number of ingested FBs and help to exclude aspirated objects.

Sharp objects have a tendency to get stuck at the level of upper oesophagus. In these cases, direct vision or laryngoscopic-aided view could be enough to make the diagnosis and to extract the FB.⁹ Oesophageal FBs that do not pass to the stomach tend to get impacted at one of the three following levels: the thoracic outlet (70%), mid-oesophagus, where the aortic arch and the carina overlap (15%) and at the lower

oesophageal sphincter (15%). When there is no breathing difficulty, a case of acute ingestion of FB can be observed for a couple of hours and checked as to whether the oesophageal FB has passed to the stomach but this general rule does not apply in cases of sharp objects and button battery ingestion or any FB who present with respiratory distress on acute onset. Delay in the diagnosis of oesophageal FB or failure to diagnose more than one FB can be associated with severe complications, which include mediastinitis, failure to thrive, pneumothorax, abscess and stricture.^{10 11}

The wait-and-watch policy in cases of FB oesophagus is not always the correct approach especially when it presents as respiratory distress of sudden onset.

Learning points

- ▶ Foreign body (FB) ingestion can present with a wide variety of symptoms.
- ▶ A high index of suspicion must be maintained when the child present to a medical facility with symptoms related either to the respiratory or gastrointestinal tract.
- ▶ Oesophageal FB leading to severe acute respiratory distress is uncommon and requires urgent surgical intervention.
- ▶ Wait-and-watch policy in cases of FB oesophagus is not always the correct approach especially when present as respiratory distress of sudden onset.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Box 1 Symptoms of oesophageal foreign body

Symptoms of oesophageal foreign body
Respiratory distress
Tachypnoea
Wheezing
Stridor
Drooling
Coughing
Dysphagia
Fever
Failure to thrive
Irritability
Recurrent aspiration pneumonia

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