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# Case series of uncommon foreign body in aero-digestive tract at tertiary care hospital in southern Rajasthan

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**Abstract**

Foreign bodies in upper aero-digestive tract is a very common incident, specially in children and mentally retarded population. Tendency of young children to put any objects in mouth, put them at higher risk of foreign body ingestion or inhalation.

Sometimes nature of foreign body and its presentation is atypical making its diagnosis and management difficult. In this series we present such atypical foreign bodies encountered in our institution, which were successfully managed.

**Keywords**: Foreign body, Aerodigestive tract, Uncommon.

## Introduction

Foreign body (FB) ingestion or inhalation in the aerodigestive tract has significant morbidity and mortality. FB ingestion more commonly occurs in children than adults. Children below 3 years of age does not have molars therefore they become more prone for swallowing. FB ingestion in adults occurs accidentally or in mentally challenged individuals.[1]

Common foreign bodies in upper aero-digestive tracts are coins, button batteries, meat bolus, fishbone, seeds and other small metallic objects. They may present with dysphagia, dyspnoea, or voice change depending on the site of lodgment.[2,3]

Radiographs can be very helpful in determining the site of foreign body impaction. Proper investigations and timely management of these cases reduce the significant morbidity. We present a case series of 5 unusual foreign bodies in upper aero-digestive tract encountered in our institution.

**Case Reports**

**Case report 1**- A 7-year-old male child was brought to the ENT casualty; with noisy respiration. He was unable to speak. On Fibreoptic laryngoscopy, foreign body was seen at the level of glottis (Fig.1). It was removed under local anaesthesia by laryngoscopy (Fig.2). On removal we found it was some spiculated organic foreign body, probably xanthium (Fig.3). Post-operatively the patient had hoarseness of voice which resolved gradually.

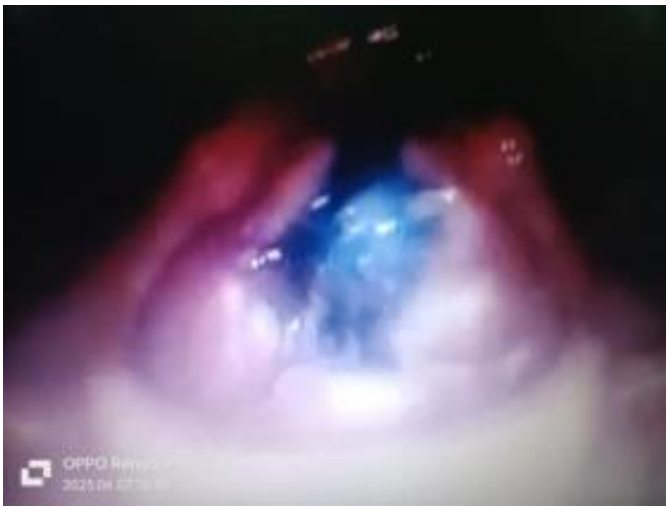

Fig. 1: FB at the level of glottis

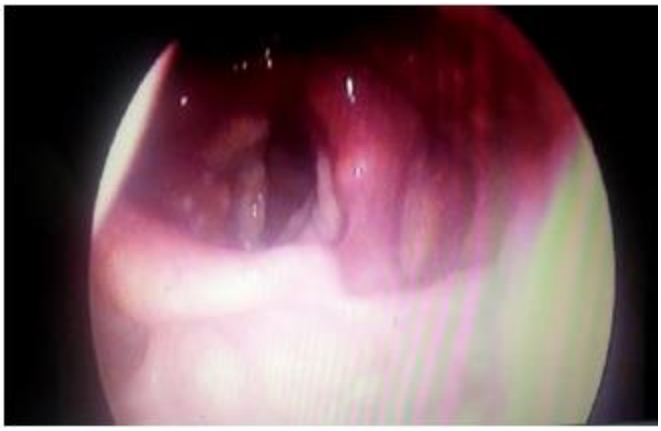

Fig. 2: After FB removal

Fig.3: Removed FB from glottis.

**Case report 2**- A 12-year-old female presented to department of Oto-rhino-laryngology. She came with a history of accidental swallowing of safety pin while wearing saree. On radiograph, open safety pin was seen in mid oesophagus. It descended very fast and was removed by flexible upper GI endoscopy from fundus of stomach (Fig.4). Post-operatively patient recovered very soon.

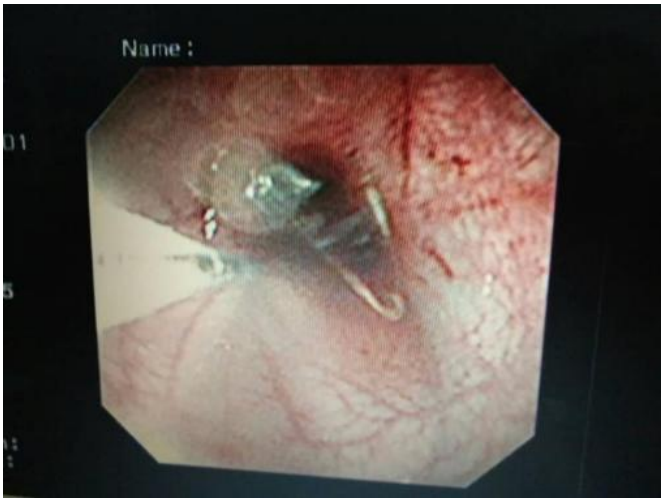


Fig. 4: Open safety pin removed from fundus of stomach.

**Case report 3**- A 2-year-old female child was brought to the ENT casualty with sudden onset of cough and difficulty in breathing. There was no history of foreign body inhalation. On Auscultation, air entry was

decreased on left side. Radiograph showed safety pin in left main bronchus which was removed by rigid bronchoscopy. (Fig.5 and 6)

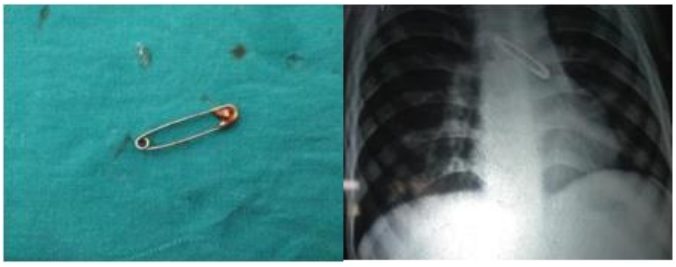

Fig. 5: Removed FB safety in in left main bronchus

**Case report 4-** A 75-year-old female came to ENT OPD with cough and chest pain for 1 month. She did not have any history of foreign body inhalation. Chest radiograph showed bent iron nail in left main bronchus which was removed by rigid bronchoscopy. (Fig.7)

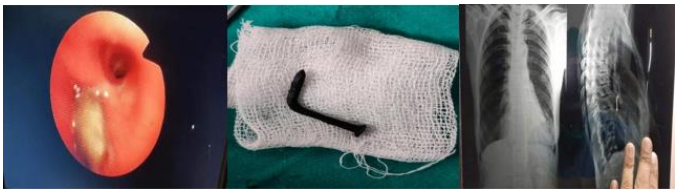

Fig. 6: FB Nail in left main bronchus Fig.7- Bent iron nail in left main bronchus

**Case report 5-** A 12month old boy presented with history of choking and coughing while playing. Later symptoms resolved but the child was irritable. He was examined and a radio-opaque foreign body was found in left main bronchus (Fig.8,9). Rigid bronchoscopy was done, metallic foreign body visualized and removed from left main bronchus. A metallic screw of 1.3cm size was removed (Fig.10). Radiological confirmation was done by post operative radiographs. Post operative recovery from anesthesia was uneventful.

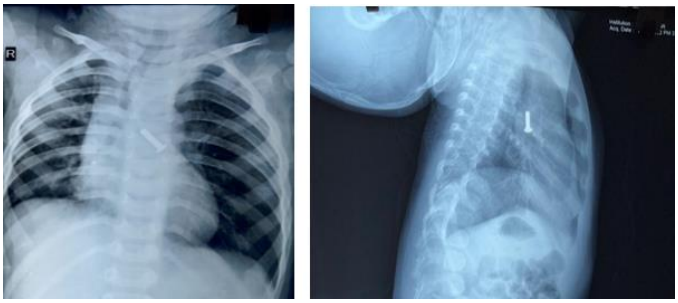

Fig.8,9- Metallic screw in left main bronchus

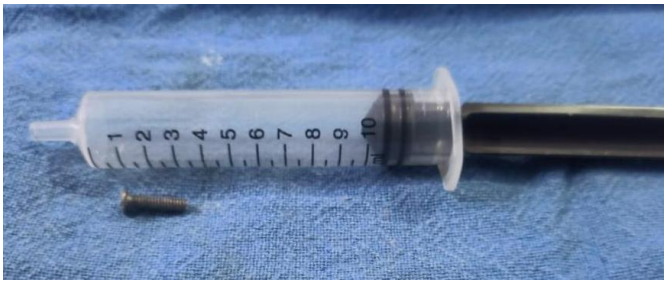

Fig.10- Removed FB

**Discussion**

The maximum incidence of foreign body inhalation occurs in 1-3yrs of age group. Males are more commonly affected than females[1].Symptoms subside after the initial paroxysm of coughing and choking as the respiratory mucosa becomes tolerant and this delays the diagnosis[4].This occurs especially with inert metallic objects where very little mucosal reaction takes place. Chest radiographs and clinical history taking are the gold standards for making the diagnosis of metallic foreign body inhalation. Right main bronchus is wider and more vertical than the left main bronchus, therefore inhaled foreign bodies lodge in right main bronchus more commonly[5].Therefore, inhalation of a metallic foreign body and that too in the left main bronchus is a rare finding[5].

Foreign bodies inhaled or ingested should be removed endoscopically under local or general anesthesia. Generally, the majority of foreign bodies present late to ER, hence the procedures for removal of foreign bodies should be done after complete assessment of case,

assembly of experienced surgeon and arrangement of proper instruments.[6,7]

Urgent removal of foreign bodies should be done when there is actual or potential airway compromise; disc battery ingestion; or there are signs of esophageal perforation.[8]

In some of the cases, flexible endoscopy is preferred over rigid endoscopy due to better patient comfort and less chances of severe complications.[9] In our 2nd case report, flexible scope was used to remove the foreign body from fundus of stomach as it would be difficult to locate the foreign body in fundus from rigid oesophagoscope.

**Conclusion**

Foreign bodies in the aerodigestive tract have considerable amount of morbidity and mortality. Careful handling of these objects by adults and keeping away from children is a way to reduce the incidence of such events. Detailed history taking, meticulous clinical examination and high degree of suspicion is required by the surgeon to establish the diagnosis of foreign body.

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