Various Foreign Body Encountered in Aerodigestive Tract in ENT Practices: A Case Series

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Abstract

Foreign body ingestion or aspiration is one of the commonest emergency encountered by otorhinolaryngologists. It occurs more commonly in children, and may be the cause of morbidity and complications. The purpose of this study is to diagnose and manage aero-digestive foreign bodies in infants with unusual presentation and no definite history. All patients presented to our Otorhinolaryngology Department with symptoms unresponsive to medical treatment and patients with no definite history of foreign body aspiration were prospectively evaluated and all patients underwent proper management and foreign body removal.

Introduction

A foreign body is a piece of extraneous matter incongruous with the anatomy of site of lodgement. It may be classified as animate or inanimate (corrosive/non corrosive), organic or inorganic, hydrophobic or hydrophilic\cite{1}.

Foreign bodies in Ear, Nose and Throat are one of the most common presentation that otorhinolaryngologists meet with in their career, carrying significant mortality and morbidity if not diagnosed and managed promptly. Foreign body aspiration (FB) is leading cause of accidental death in children\cite{2}.

It is estimated that 1,000 children die annually in the USA because of FB aspiration\cite{3}. But in our country incidence may be much more because of poverty and illiteracy, though no such data available.

The type, shape, size and location of the foreign body determines its necessity of an emergency removal\cite{1}.

It is commonest in children between 9 months and 3 years of age because: (a) exploration of their environment by putting objects into their mouths; (b) learning to walk and run; (c) inadequate dentition; (d) immature swallowing coordination; and (e) supervision by an older sibling\cite{4}.

Case 1

A 50 yrs old male.
Complaining of:
Difficulty in swallowing since 5 hours
Foreign body sensation in throat since 5 hours
History of:
Accidental ingestion of denture during meal.
Difficulty in breathing
Change in voice

Examination
Ear: NAD, Nose: NAD,
Mouth and Throat: NAD

Videolaryngoscopy
Shows an unusual foreign body (oral denture) at the level of laryngeal inlet.

Investigations
Blood Routine: Normal

Treatment
Laryngoscopy and removal of foreign body done under i.v. sedation.

Case 2
A 6 months female.
Complaining of: (history given by father)
Recurrent bouts of vomiting after feed since 1 day.
History of:
Accidental ingestion of crystal bead (kancha).
No history of difficulty in breathing

X ray Neck, Chest and Abdomen (AP & Lateral View)
Shows an circular radio opaque foreign body at the level c4 vertebrae.

Investigations
Blood Routine: Normal

Treatment
Hypopharyngoscopy and removal of foreign body done under I.V. sedation.

Case 3
A 1.5 year female.
Complaining of: (history given by father)
Recurrent bouts of vomiting after feed since 5 hours.
History of:
Accidental ingestion of metallic foreign body (RAKHI) while playing.
No history of difficulty in breathing

X ray Neck, Chest and Upper Abdomen (AP & Lateral View)
Shows an circular radio opaque foreign body with pointed margins all around (RAKHI) at the level of cricopharynx.
Investigations
Blood Routine: Normal

Treatment
Hypopharyngoscopy and removal of foreign body done under i.v. sedation.

CASE 4
A 2 year male.
Complaining of:
Recurrent bouts of vomiting since 4 months
History of:
Treatment since last 4 months as infection, malaria, liver problems since last 4 months but not relieved.

Examination
Ear: NAD
Nose: NAD
Mouth and Throat: NAD

X ray Neck, Chest and Abdomen (AP & Lateral View)
Shows an circular radio opaque foreign body at the lower half of oesophagus

Investigations
Blood Routine: Normal
Treatment
oesophagoscopy and removal of foreign body (battery) done under G.A.

Case 5
A 7 month female.
Complaining of: (history given by father)
Recurrent bouts of vomiting since 8 to 10 hours.
History of:
Accidental ingestion of foreign body (key) about 8 to 10 hours back.

X ray Neck, Chest and Abdomen (AP & Lateral View)
Shows an radio opaque foreign body (key) at the level of c6 and c7.

Investigations
Blood Routine: Normal
Treatment
hyphopharyngoscopy and removal of foreign body (key) done under I.V. sedation.
Case 6
A 4 year female.
Complaining of:
Pain in throat since 3 days.
History of:
Accidental ingestion of foreign body (coin) while playing.
Xray Neck, Chest and Abdomen (AP & Lateral View)
Shows an circular radio-opaque foreign body (coin) at the level of c6 and c7.

Investigations
Blood Routine: Normal

Treatment
Hypopharyngoscopy and removal of foreign body (coin) done under I.V. sedation.

Case 7
A 42 year old female.
Complaining of:
Difficulty in swallowing since 3 hours
Foreign body sensation in throat since 3 hours
History of:
Accidental ingestion of ?fish bone during meal.

Examination
Ear: NAD
Nose: NAD
Mouth and Throat: NAD

Videolaryngoscopy:
Shows an foreign body (fish bone) in left pyriform fossa.

Investigations:
Blood Routine: Normal

Treatment
Direct laryngoscopy and removal of foreign body (fish bone) done under I.V. sedation.

Discussion
Foreign body aspiration may present as a minor irritation or a life threatening problem[1,4]
X-ray chest (CXRs) is commonly done but has only 67 % diagnostic accuracy as concluded by a study[6]. Multi spiral CT & VB is used to diagnose radiolucent FB missed on plain X-ray. It reduces conventional bronchoscopy time, is non invasive and can go beyond the stenosed airway[7].
Sharp objects are extremely challenging for endoscopic removal where the pointed end tends to engage (as seen in denture case).
Thus, any child presenting with cough, vomiting, stridor and respiratory distress of acute onset should be suspected for FB aspiration unless proved otherwise. Parents usually have a tendency to put finger into child’s mouth to remove a FB, which causes trauma, bleeding and pushes FB further into lower airways. This practice should therefore be discouraged.

Conclusion
Foreign body in ENT is the most common presentation in a wide range of age groups especially in paediatric patients. The most common age of foreign body presentation is 0-3 years followed by 4-7 years due to the curious nature and development of pincer grasp in this age group. In general 3 years was the most common age of foreign body presentation. The most common time of presentation of foreign body was within the initial 0-8 hours. The complications associated with foreign bodies can range from a minor infection or bleeding to death due to aspiration, thus carrying a significant mortality/morbidity associated with them. The shape, size, types, site of lodgement, time of presentation of foreign body and socioeconomic status all have a role in their outcome and management. This necessitates an astute clinical judgement and prompt action in removal of foreign body so as to prevent any complication.

References