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Case report

Foreign Body Oesophagus in a Neonate with Unusual Presentation and An Intent to Homicide: A Case Report

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ABSTRACT

Foreign body ingestion in neonatal period is rare, whereas it is common in paediatric age group. We report a rare case of foreign body (button battery) oesophagus in a 22 day old female neonate causing obstructive symptoms after a homicidal attempt. The unusual age of presentation, history and circumstances involved in this case prompted us to report this case

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Introduction

Ingestion of foreign body (FB) is a common but serious problem in paediatric population. Most common age of presentation is between 6 months to 3 years¹. Tendency of oral exploration of things and curiosity is the primary underlying cause of this problem. Oesophageal ingestion of foreign body in neonates is very unusual and rare occurrence^{2,3,4,5}. Coins are the most commonly ingested foreign bodies, with button batteries, fish bone, marble, stone and pieces of meat, etc., being other forms of ingested foreign bodies⁶. In, majority of cases, it is accidental in nature but can be occasionally homicidal⁵. Early treatment can avert serious morbidity and mortality. In this article, a metallic button battery ingestion in a 22 days old neonate is described. Unusual age of presentation and options available to remove these oesophageal foreign bodies need further evaluation. We are presenting this case because of its rareness, without any obvious history of foreign body ingestion, unusual clinical presentation, unusual age of presentation and an intent to homicide of this female neonate.

Case report

A 3.5 kg, 22 days old female neonate from poor socioeconomic status was referred to Otorhinolaryngology (ENT) Department of Government Medical College and Rajindera Hospital, Patiala with complaints of vomiting, cough, drooling of saliva and poor feeding for last 10 days. She was kept at home, despite these symptoms, for almost a week before medical consultation was taken. She was taken to a local practitioner who treated her for 2 days and then referred her to our hospital. Patient was referred to ENT department by paediatrician with suspicion of foreign body. On examination baby had mild tachypnoea but no stridor. She was mildly dehydrated. There were conducted sounds

in both lung fields on auscultation. Cardiovascular, abdominal and central nervous system did not reveal anything significant. Suspecting a foreign body, an X-ray neck lateral and AP view (Fig.1) was done which revealed a rounded radio opaque foreign body, 1x1 cm in size, in superior mediastinum. Lateral view X-ray demonstrated the foreign body in upper oesophagus. Impacted metallic button battery from upper oesophagus was successfully removed under general anesthesia by oesophagoscopy using coin holding forceps. There was localized oedema and slight ulceration in the upper part of oesophagus but there was no charring or perforation in oesophagus. A nasogastric tube was inserted after removal of foreign body and feeding was started after 24 hours. Child regained normal breathing and swallowing and repeat X-ray chest was normal.

Fig.1: X-ray neck and chest AP and lateral view showing the radio opaque foreign body.

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Discussion

Foreign body ingestion is a common but serious problem in paediatric population¹. Eighty percent of all the foreign bodies of oesophagus occur in children, with a peak incidence in the age group of 6 months to 3 years. Of these foreign bodies that come to medical attention, 80-90% passes through gastrointestinal tract without any difficulty, 10-20% requires endoscopic removal, and only 1% requires surgical intervention⁷. The most common site for lodgement of an ingested foreign body is cricopharynx. Other common sites are at the level of aortic arch and lower end of oesophagus. The foreign body in our case was lodged in upper part of oesophagus.

Diagnosis becomes easier when parents give history of foreign body aspiration. X-ray neck, AP and lateral view, is most commonly done for diagnosis. If the incident is not witnessed and the ingested object is radiolucent, the diagnosis of foreign body ingestion can be very difficult. Computed tomography scans of the neck, ultrasonography, and magnetic resonance imaging may be required for diagnosis in cases of radio lucent foreign bodies⁸.

Endoscopic removal is the preferred method for oesophageal foreign bodies in neonates⁹. These can also be removed by using Mc Gill's forceps and coin holding forceps under direct laryngoscopy¹⁰. Failure of removal of impacted foreign bodies by these approaches can be managed by cervical exploration⁵.

Oesophageal foreign body can damage the oesophagus leading to perforations and strictures. Apart from eroding into the trachea, the object can erode into the aorta, leading to exsanguinations and death¹¹. Other serious complications reported after foreign body ingestion includes abscess formation and even sudden death⁷. Foreign bodies should be immediately removed after diagnosis, because they may rapidly cause direct tissue damage and local damage like blackening, charring, necrosis and oesophageal perforation due to pressure and chemical burns¹². In our case, the button battery had not caused much tissue damage, in spite of lying at the site for almost 10 days.

Occurrence of ingestion of foreign bodies in neonates is rare with only a few reported cases in literature⁴. It is seen in circumstances where it has been inserted into the mouth playfully by an elder sibling or homicidal attempts on an unwelcome female child⁵. In the present case, this female child was a fourth female child in the family wherein the only earning member was a poor labourer. The grandmother had probably put the battery in the child's mouth and then kept her at home for so many days hoping that she would succumb to it. In such cases, a history of foreign body ingestion is usually not available. A high index of suspicion must be kept in mind when any child presents to a medical facility with symptoms related either to the respiratory or gastrointestinal tract. Respiratory distress is the most common manifestation of a foreign body in oesophagus in neonates, and it can lead to misdiagnosis of a respiratory disorder¹². However, in this case, no history was forthcoming, and no respiratory symptoms except tachypnoea were there at time of presentation which is unusual. Only high indexes of suspicion lead to the diagnosis.

Conclusion

Thus it is concluded that ingestion of a foreign body by a female neonate of poor socioeconomic status, presenting with sudden onset of respiratory and gastrointestinal symptoms a few days

after birth, constitutes a form of child abuse which should be kept in mind, so that a prompt diagnosis can be made and appropriate treatment instituted to avert serious morbidity and mortality. Parents and caretakers need to be counselled regarding this.

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