



Case Report:

Unusual Esophageal Twin Foreign Body (Glass Marble) in a Neonate

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Abstract: Although ingestion of foreign body in oesophagus is common in pediatric age group, its occurrence in neonatal period is rare. Etiology behind these foreign bodies may be negligence or homicidal attempt for unwanted child. A high index of suspicion is required for diagnosis, whenever the neonate presents with symptoms related either to the respiratory or gastrointestinal tract. Delayed diagnosis can result in serious complications. We report a very unusual case of twin foreign body (glass marble) in oesophagus in a 30 days old female neonate. The peculiarity of this case concerns the unusual foreign body and age of the patient.

Key Words: Oesophagus; Neonate; Foreign body

Introduction

Impaction of foreign body (FB) in the esophagus occurs most commonly in the paediatric age group between 6 months to 3 years.¹ However, in the neonate the occurrence of FB in the esophagus is quite rare with only a few reported cases in the literature.²⁻⁷ It usually occurs in circumstances where either it has been inserted in the mouth playfully by elder sibling or homicidal attempts of an unwelcome female child in lower socioeconomic status families.⁴

Impaction of FB in oesophagus can result in serious complication and death.⁸ Therefore a rapid and early diagnosis, together with subsequent treatment are necessary to reduce the morbidity and mortality in a neonate. We report a rare case of twin foreign body (glass marble) in a 30-days-old female neonate. Both the foreign bodies were removed successfully by direct laryngoscopy using Mc gill's forceps.

Case report

A 30 days old female neonate was brought to the department of Pediatrics, Government medical college Patiala with the complaints of vomiting, drooling of saliva, cough, and cry on every attempt of feeding and poor feeding for 3 days. There was no history of foreign body ingestion, but elder sibling playing with marbles around was present. ENT consultation

was taken to rule out FB ingestion. On examination baby had mild tachypnoea, but no stridor. Pulse rate was 144/min, and respiratory rate was 40/min. Air entry was mildly reduced on both sides. No significant finding was revealed on Cardiovascular, abdominal and central nervous examination. Suspecting a foreign body, an X-ray chest with AP and lateral view was done, which revealed two radio opaque spherical foreign bodies approximately 1.5x1.5 cm in size each, present in the upper esophagus (Fig. 1 and 2). First one was present at the level of C6-C7 vertebra and second was present at the level of T1-T2 vertebra. An endoscopic removal was planned under general anesthesia. Both the foreign bodies (glass marble) were removed successfully using Mc gill's forceps under direct laryngoscopy. Postoperative period was uneventful. Patient was discharged after 48 hours.

Discussion

Although foreign body ingestion is common in pediatric age group, yet most of the foreign bodies (80-90%) do not require any intervention. Endoscopic removal is required in 10-20% cases and only about 1% requires surgical intervention.⁹ Common sites for obstruction by an ingested oesophageal FB include cricopharyngeal area, and the middle one-third of the oesophagus (at the level of aortic arch) and lower oesophageal sphincter (just above the diaphragm).

Ingestion of FB is very rarely encountered in neonates. Various foreign bodies like stone^{3,4}, ornament ring⁵, button², safety pin⁶ and metallic (disc-battery)⁷ have been described in the literature. Occurrence of such FB in neonates are seen in circumstances where it has been inserted in the mouth playfully by an elder sibling or homicidal attempts for unwanted female child in lower socioeconomic families.⁴ In our case there was no clear history of foreign body insertion, but there was history of elder sibling playing with marbles around was present. However, homicidal attempt can not be ruled out completely in this case, as the patient belongs to

lower socioeconomic status and child was second female in the family with three elder siblings.



Fig. 1: X-ray Chest AP view showing spherical twin foreign body at cricopharynx and upper esophagus level.



Fig. 2: X-ray Chest lateral view showing spherical twin foreign body at cricopharynx and upper esophagus level.

The severity of clinical symptoms depends upon the site, size composition and period for which the FB has been present. The patient usually presents with dysphagia, drooling of saliva, vomiting, with cough, respiratory distress and stridor. Respiratory distress is the most common manifestation of an FB in esophagus in neonates.² The respiratory manifestation may be because of physical compression or erosion of trachea.⁷ In our case, the patient had cough and mild respiratory distress with no stridor, probably because of short duration of impaction (3 days) and smaller size of FB. History and radiological examination are crucial for the diagnosis of FB ingestion in neonates. Diagnosis of the FB in

the esophagus is easier when the family members provide a leading history or the FB is opaque such as coins, stones and marbles which are visible on plain X-rays like in our case. If the radiographs are negative, endoscopy is preferred over barium swallow for radiolucent FBs.¹⁰ Computerized tomography, ultrasonography, magnetic resonance imaging also has been used to recognize radiolucent FBs.

Endoscopic retrieval is the preferred method for oesophageal FBs in neonates.¹¹ These can be removed by using Mc Gill's forceps under direct laryngoscopy.¹² In cases of large and impacted FB, open surgery by cervical exploration is preferred over endoscopic removal. In the present case both the FBs are removed with the help of Mc Gill's forceps under direct laryngoscopy. Shorter duration of impaction and small size of FBs helped us in removal of both FBs with Mc Gill's forceps.

Conclusion

A very rare case of twin foreign body (glass marble) in esophagus in a 30 days old female neonate is reported. Such cases are a form of child abuse or neglect. Delayed diagnosis can result in serious complications and death. Early diagnosis is of utmost importance to minimize morbidity and mortality.

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