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Large Stone in Oesophagus in a Two Month Old Premature Infant

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Abstract

We report a rare case of large stone in esophagus of a 2 month old premature male causing obstructive and respiratory symptoms. Although foreign body oesophagus is not uncommon, however unusual age and circumstances involving the ingestion of the foreign body prompted us to report this case.

Key words: *Child, foreign body, ingestion, Foreign bodies, Esophagus*

INTRODUCTION

Foreign body ingestion is a potential serious problem that usually peaks in children aged 6 months to 3 years. It may remain asymptomatic and pass unnoticed if unwitnessed or may manifest with digestive, respiratory or behavioural problems. Etiology behind these foreign bodies usually is negligence or rarely homicidal attempt for

unwanted child. A high index of suspicion is required for diagnosis, whenever the child presents with symptoms related either to the respiratory or gastrointestinal tract.¹ Faced with developmental limitations of incompletely formed dentition, poor coordination of swallowing and poor cough reflex, the risk of food related and other

foreign body impaction is further heightened. An estimated 40-50% of foreign body ingestion in children is unwitnessed, and in many cases the child is symptomatic. However, in the children < 2 months the occurrence of FB in the esophagus is quite rare with only a few reported cases in the literature. It usually occurs in circumstances where either it has been inserted in the mouth playfully by elder sibling or homicidal attempts in lower socioeconomic status families. Impaction of FB in oesophagus can result in serious complication and death. We report a rare case of a large stone ingestion in a premature 2 month old male child.

CASE REPORT

A 2 old month male was referred to Department of Otolaryngology, PGIMS, Rohtak with complain of difficulty in breathing, vomiting, refusal to feed and bleeding from nose and mouth for one day. He was born prematurely (30 weeks), with birth weight 800 mg ,whose twin brother expired just after birth. He was kept in neonatal care for one and half months. There was history of elder brother, age 5 yr, putting something in patient's mouth while parents were away for work. Parents came home and noted child having vomiting and difficulty breathing. Parents patted over child's back and 2 stones were removed manually from mouth, followed by slight bleeding from nose and mouth. According to mother child refused breast milk. On examination, patient's weight was 1.5 kg, pulse rate was 160 /min, respiratory rate was 40 /min, oxygen saturation 100%,

bilateral air entry was normal and equal. Suspecting a foreign body, an X-ray chest with AP and lateral view was done, which revealed one radio opaque spherical foreign bodies approximately 1.5x1.5 cm in size, present in the upper esophagus (Fig. 1 & 2). Esophagoscopy was planned under general anaesthesia. In operation theater general anesthesia was induced and rigid oesophagoscope was used. The FB was impacted at upper end of oesophagus. Small stone pieces came with forcep in multiple attempts, residual stone was inadvertently pushed into the stomach. Repeat x-ray was done next day and no foreign body visualised. Patient passed stone pieces in stool next evening. Postoperative period was uneventful. Child started taking breast feed, was discharged after forty hours of the procedure without any problem.

DISCUSSION

Although foreign body ingestion is common in pediatric age group, yet most of the foreign bodies' i.e 80-90% do not require any intervention. Endoscopic removal is required in 10-20% cases and only about 1% requires surgical intervention. Various foreign bodies like coins, stone, ornament ring, button, safety pin and metallic (disc-battery) have been described in the literature. Most frequent lodging site is just below the levels of cricopharyngeus muscle and others are aorta, left main bronchus and lower esophageal sphincter.³⁻⁴ Diagnosis becomes easier when parents give history of FB ingestion. X -rays neck, AP and lateral view are most commonly done for diagnosis. If the incident is not witnessed

and the ingested object is radiolucent, the diagnosis of FB ingestion can be very difficult. Barium esophagoscopy, computed tomography scans of the neck, ultrasonography, and magnetic resonance imaging may be required for diagnosis. If the radiographs are negative, endoscopy is preferred over barium swallow for radiolucent FBs.⁵ For removing a foreign body various methods have been described, like Foley's catheter, rigid endoscopy and fiberoptic endoscopy. While removal under direct vision is the method of choice, conventional pediatric esophagoscopes of small size are difficult to work with, because of limited straw vision. Among children below 3 years of age the impaction of foreign body is common, necessitating prompt removal. Esophageal FB can damage the esophagus leading to perforations and strictures, more in disc batteries. Apart from eroding into the trachea, the object can erode into the aorta, leading to death.⁶ Other serious complications reported after FB ingestion include abscess formation and even sudden death. FBs should be immediately removed on diagnosis, because they may rapidly cause direct tissue damage. In our case there was history of elder sibling playing with stones around was present. In all probability jealousy factor prompted the elder brother putting the stone into child's mouth.



Fig. 1 Chest radiograph (PA view) showing foreign body.



Fig. 2 Chest radiograph (lateral view) showing foreign body at upper esophagus level.

CONCLUSION

In conclusion sudden onset of symptoms even in a two month old infant, one should consider the possibilities of foreign body in aero digestive tract. A careful history, thorough physical examination, and two X - ray views (AP and lateral) of neck and chest helps to diagnose foreign bodies in the upper airway.² A rapid and early diagnosis, together with subsequent immediate treatment are necessary to reduce the morbidity and mortality. The successful location and extraction of this foreign body demands substantial patience, skills and a multidisciplinary team approach. Further early treatment prevents complication.

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