

Foreign Body Ingestion in a 2-Month-Old Baby: A Case Report and Review of Literature

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Abstract

Foreign Body (FB) ingestions are common in childhood and are commonly observed in the emergency departments of the hospitals. Most of the ingested FBs pass the entire gastrointestinal tract uneventfully and spontaneous passage of FB with feces is commonly observed and surgical interventions to remove the ingested objects out of the gastrointestinal tract may be necessary in little number of patients. A 2-month-old baby with vomiting after feedings is presented in this report. A metal coin was detected at the first esophageal narrowing during endoscopy and removed. The patient is discussed under the light of relevant literature.

Introduction

Foreign Body (FB) ingestions are common in childhood and are commonly observed in the emergency departments of the hospitals. It is usually seen in children with the age range of 6 months and 3 years [1]. Most of the ingested FBs pass the entire gastrointestinal tract uneventfully and spontaneous passage of FB with feces is commonly observed and surgical interventions to remove the ingested objects out of the gastrointestinal tract may be necessary in little number of patients [2]. As the endoscopic interventions for extraction of ingested FBs are routinely used, noninvasive removal of FBs has become feasible in these patients. There are certain areas where the progress of foreign objects may be impeded and they may puncture or perforate the tissues where they locate. These are esophagus at the level of cricoid cartilage, esophagus at the level of arcus aorta, esophagogastric junction, pyloric ring, C-loop of the duodenum, Ligament of Treitz, ileocecal valve. Most common location of ingested FBs in children is esophagus with a ratio of 28%-68% [3]. Among the esophageal FBs metal coins are the most commonly seen [4]. A 2-month-old baby with vomiting after feedings is presented in this report. A metal coin was detected at the first esophageal narrowing during endoscopy and removed. The patient is discussed under the light of relevant literature.



Figure 1 : AP and lateral radiographs showing ingested radio-opaque FB.



Figure 2: AP and lateral radiographs showing ingested radio-opaque FB.



Figure 3: Foreign body a metal coin.

Case

A 2-month-old baby with vomiting containing mother milk after the last three feedings was admitted to our pediatric emergency department. The patient history revealed that the faecal discharge of the baby was as usual. Abdominal examination was otherwise normal and there wasn't abdominal distention. Plain X-rays of the baby revealed a radio-opacity with a clear margin at the level of first narrowing of the esophagus (Figures 1,2). Detailed history of the baby revealed that his elder brother put a metal coin into the baby's mouth during play. Rigid esophagoscopy was performed under general anesthesia and the FB (a metal coin) was safely removed with the aid of foreign body pincer and the patient was discharged on the first postoperative day (Figure 3).

Discussion

In order to search out the objects, young children usually ingest FBs during play times [5]. Most of the ingested FBs pass through the gastrointestinal tract and spontaneous discharge of FB with faeces is commonly observed. Passage of FBs may sometimes be impeded at certain locations of the gastrointestinal tract such as angulations and physiological anatomical narrowings. Retention of ingested FBs mostly occurs in esophagus and locations of these ingested FBs are as follows: 70% at upper esophagus at the level of cricopharyngeal muscle, 15%

at thoracic esophagus and 15% at gastroesophageal junction [3]. Ingested foreign objects may differ according to regional geographic places and cultural features. Despite to their huge sizes, blunt objects such as metal coins, pieces of toys, batteries etc. do not become impeded in the esophagus excluding physiological narrowing sites of the esophagus. Retention of elongated and pointed objects such as pins, fish bones, toothpicks etc. may occur in the esophagus even their sizes are small. These objects may obstruct the esophagus, erode esophageal mucosa and induce perforation or even mediastinitis [6].

Although the symptoms related to FB ingestion may differ, the most common symptom is difficulty during swallowing. However retrosternal pain, feeling of suffocation, increase in secretions whether bloody or not, feeling of impediment of the ingested objects in the esophageal lumen may also be observed. These symptoms may not be detected in small infants but refusal to eat and drink and vomiting may be observed. If the retention of FB in the esophagus continues, symptoms related to respiratory tract may be seen. Unless there is a condition impairing the anatomical integrity of the esophagus such as perforation, physical examination may be otherwise normal.

Posteroanterior (PA) and lateral X-ray of the patients including neck, thorax and abdomen should be obtained in patients with the complain of FB ingestion or there is a suspicion of FB ingestion. Radio-opaque FBs may easily be diagnosed with the direct roentgenograms. In the diagnosis of ingested radioluscent FBs, esophageal passage graphy with a contrast agent should be taken.

The choice of treatment depends on the shape, type and site of the ingested FBs. The choices of treatment for FBs located in esophagus include rigid or flexible esophagoscopy, the technique of penny-pincer and extraction of FB with foley catheter, esophageal bouginage and pushing it into the stomach if safe removal of FB is not feasible, removal with Magill forceps in patients with easily seen FBs [4].

In this report a 2-month-old baby with the complain of vomiting and decreased appetite is presented. Direct graphy revealed the ingested an esophageal FB located at the first anatomical narrowing. Under general anesthesia safe removal of FB (metal coin) was performed using rigid esophagoscopy. Detailed history of the patient revealed that his elder brother put the coin into the baby's mouth during play.

Conclusion

Although it is known that FB ingestion usually occurs in children with an age range of 6 months to 3 years, younger children as the presented case may also ingest FB. Ingestion of FB should be kept in mind in even small children with vomiting and decreased appetite and direct graphy and sometimes esophagogram using contrast agent should be obtained. Detailed history during the evaluation of these rather younger patients is especially important as in the case in our report whose elder brother put the metal coin into the baby's mouth. After a search for literature on the ingested FBs in children using PubMed database, we come to a conclusion that our case is probably the youngest patient in the English Language literature with FB ingestion. Presented case adds to the literature that FB ingestion may occur as young as 2 months and should be kept in mind and treated accordingly.

References

1. Webb WA. Management of foreign bodies of the upper gastrointestinal tract: Uptodate. *Gastrointest Endosc.* 1995; 41: 39-51.
2. Aydogdu S, Arikan C, Cakir M, Baran M, Yüksekaya HA, Saz UE, Arslan MT. Foreign body ingestion in Turkish children. *Turk J Pediatr.* 2009; 51: 127-132.
3. Athanassiadi K, Gerazounis M, Metaxas E, Kalantzi N. Management of esophageal foreign bodies: a retrospective review of 400 cases. *Eur J Cardiothorac Surg.* 2002; 21: 653-656.
4. Cetinkursun S, Sayan A, Demirbag S, Surer I, Ozdemir T, Arikan A. Safe removal of upper esophageal coins by using Magill forceps: two centers' experience. *Clin Pediatr (Phila).* 2006; 45: 71-73.
5. Balık E, Avanoğlu A, Ulman I, Erikci V, Demircan M. Removal of open safety pins from the stomach and duodenum of infants without enterotomy. *Pediatr Surg Int.* 1995; 10: 282-284.
6. Foltran F, Passali FM, Berchiolla P, Gregori D, Pitkäranta A, Slapak I, et al. Toys in the upper aerodigestive tract: New evidence on their risk as emerging from Susy Safe Study. *Int J Pediatr Otorhinolaryngol.* 2012; 14: S61-S66.