



PEDIATRIC FOREIGN BODY INGESTION - A CASE SERIES

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ABSTRACT Foreign body ingestion is a frequent and potentially serious issue in pediatric medicine. Children, driven by their natural curiosity and tendency to explore their environment orally, are particularly susceptible to swallowing non-food items. This phenomenon, most common in children aged six months to three years, can lead to a range of complications depending on the type, size, shape, and location of the ingested object. Preventive measures are critical in reducing the incidence of foreign body ingestion. Parents and caregivers should be educated about the risks and advised to keep small objects, batteries, and magnets out of reach of young children. Additionally, educating parents about the importance of supervising young children during play and mealtimes can help mitigate the risk. In cases where foreign body ingestion is suspected, prompt medical evaluation is essential.

KEYWORDS : Foreign body; Foreign body ingestion; Accidental ingestion; Pediatric foreign body

INTRODUCTION

The spectrum of ingested foreign bodies (FB) is vast, encompassing both household items and parts of toys. Commonly ingested objects include coins, small toy parts, batteries, magnets, buttons, and jewelry. While most of these objects pass through the gastrointestinal tract without causing harm, it can vary based on the object's size and location within the gastrointestinal tract. Approximately forty percentage of foreign body ingestions go unwitnessed whereas in almost half the total cases of foreign body ingestion the child remains asymptomatic [1,2].

However, larger or irregularly shaped objects can cause symptoms such as drooling, difficulty swallowing, vomiting, chest pain, abdominal pain, or respiratory distress if the object is lodged in the esophagus [1,3,4]. Although in ninety percentage of cases involving the esophagus, the foreign body is removed successfully, some do not pass through the pylorus of stomach, Meckel's diverticulum or the ileocaecal junction making its removal difficult [5]. Thus, in roughly one tenth of the cases, the FB remains in the GI tract. [6,7]

Case Presentation

Case 1: A 6-year-old male child came with a history of accidental ingestion of a medium sized coin 1 day ago. The child had no complaints of nausea/vomiting/abdominal pain. He had normal appetite and bowel habits. On examination, child is alert, active and afebrile. Per abdomen was soft and non tender. On X-Ray it showed that the coin was in the small bowel (Figure 1). We followed the wait and watch method and encouraged plenty of fluids with a high fibre diet. After 3 days, the child passed out the coin in stools and was discharged home.

Case 2: A 5-year-old male child presented with a history of ingestion of a magnet 2 days ago. The parents did not know about the ingestion until the child had confessed. The child had no complaints of abdominal pain. He had normal appetite but had not passed stools in 2 days. On examination, child is alert, active and afebrile. Per abdomen was soft and non tender and bowel sounds were present. On X-Ray it showed that the magnet was in transverse colon (Figure 2). We followed the wait and watch method and encouraged plenty of fluids with a high fiber diet and he passed stools the next day along with the magnet. He was discharged home with an advice of high fibrous diet.

Case 3: A 4-year-old male child came with a history of accidental ingestion of a medium-large sized coin 1 day ago. The child had no complaints of fever or vomiting. He had complaints of abdominal discomfort. He had normal appetite and bowel habits and was immunized up-to date. On examination with the presence of his attender, child was alert, active. Per abdomen was soft and non tender. On X-Ray it showed that the coin was in the small bowel (Figure 3). We followed the wait and watch method and encouraged plenty of fluids. After 4 days, the child passed out the coin in stools and was discharged home.



Figure 1: FB Coin In Small Bowel.



Figure 2: Magnet In Transverse Colon



Figure 3: FB Coin In Small Bowel

DISCUSSION

Diagnosis primarily involves a thorough history and physical examination. Parents or caregivers often report witnessing the ingestion or noticing missing objects. Radiographic imaging, particularly X-rays, is a valuable diagnostic tool. Most metallic objects, such as coins and batteries, are radiopaque and easily identifiable on X-rays. However, non-metallic objects may require additional imaging modalities like ultrasound or CT scans for accurate localization.

The management of foreign body ingestion depends on several factors, including the type of object, its location, the presence of symptoms, and the time elapsed since ingestion.

Coins are the most commonly ingested objects and typically pass through the gastrointestinal tract without incident. If a coin is lodged in the esophagus, endoscopic removal is generally recommended to prevent complications such as erosion or perforation. Coins with a diameter of more than 2.5cm may get stuck in the pylorus [8].

Button batteries are particularly hazardous due to their potential to cause caustic injury to mucosa through local hydrolysis. Batteries lodged in the esophagus are a medical emergency and require immediate endoscopic removal. If the battery is greater than 2cm in diameter it can cause more complications, hence needs immediate intervention [9].

Multiple magnets or a magnet paired with a metallic object pose a significant risk of bowel perforation and obstruction. These cases often necessitate surgical intervention to prevent severe complications.

Sharp or pointed objects, such as needles or pins, can cause perforation of the gastrointestinal tract. These objects usually require endoscopic or surgical removal, depending on their location and the presence of symptoms. Of the three cases discussed above, two were accidental coin ingestion and one case was single magnet ingestion hence we followed the wait and watch method with serial monitoring of the location of the FB using X-rays. Early recognition and appropriate management are crucial in preventing adverse outcomes.

CONCLUSION

Pediatric foreign body ingestion is a common occurrence that can lead to serious complications if not managed appropriately. Awareness of the types of objects commonly ingested, recognition of symptoms, and prompt medical intervention are key components in the effective management of these cases. Age-appropriate toys should be selected, and toys with small detachable parts should be avoided for younger children. Through education and preventive strategies, the incidence of foreign body ingestion can be significantly reduced, ensuring the safety and well-being of children.

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