CASE REPORT

Foreign body ingestion in an infant: A high index of suspicion is required

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ABSTRACT

Introduction: The incidence of foreign body ingestion in the upper gastrointestinal tract accounts for 75%–85% of foreign body ingestions in pediatric patients.

Case presentation: An 8-month old boy presented with vomiting and was referred to the otorhinolaryngology team based on his mother’s suspicion that her child might have ingested a foreign body. Flexible laryngoscopy revealed a phone screen protector at the vallecular region. The foreign body was removed in the operating theatre.

Conclusion: Foreign body ingestion should always be suspected in young patients. Consideration of the patient’s symptoms, level of lodgement, and type of foreign body will determine whether immediate intervention or a conservative approach is warranted.

KEYWORDS
Pediatric, Ingestion, Foreign body

INTRODUCTION

Ingestion of foreign bodies in children presents a great challenge. This problem is among the most common emergency encounters in otorhinolaryngology. Children are known to pick up and put things into their mouths and may accidentally swallow or ingest the foreign body into their respiratory or digestive tract. Coins, marbles, buttons, toys, jewelry, pins, and bones are the typical ingested foreign bodies in pediatric patients. Coins are the most common foreign body lodging in the throat.

The incidence of foreign body ingestion in the upper gastrointestinal tract accounts for 75%–85% of foreign body ingestions in pediatric patients. Children of any age group may ingest a foreign body; however, most incidents occur in children aged 6 months to 3 years. Clinical symptoms may vary according to the type, size, composition and site of lodgement of the foreign body. Most children are asymptomatic.

We present a case of a unique foreign body ingestion in a child. The aim of this case report was to raise awareness among medical personnel that foreign body ingestion may occur in unforeseen situations; therefore requiring high index of suspicion. This report emphasizes an unusual accidental foreign body ingestion in a child, which may occur unexpectedly, and we describe this particular patient’s management.

CASE REPORT

An 8-month old boy was brought by his mother to our emergency with a complaint of five episodes of vomiting for one day. The boy had also refused to eat. Otherwise, there was no fever, cough, rapid breathing, abdominal distention, or loose stool noted. Apparently, the child was well prior to the onset of vomiting. Initially, we suspected acute gastroenteritis; however, the boy’s mother stated that no other family
members had similar symptoms, and that her son had no history of eating food outside the home.

While at the emergency department, the boy’s mother noted that part of her phone screen protector was missing. The child was then referred to the otorhinolaryngology team based on the mother’s suspicion that her child might have ingested the missing partial screen protector, as a foreign body. The mother claimed that she let her child play with the phone. However, no eye witness could prove foreign body ingestion. Upon initial examination, the boy’s condition was stable breathing room air, and he was relatively well hydrated.

Upon further examination, there was no stridor heard, and the boy had no rapid breathing or chest recession. Air entry was equal and clear, bilaterally. Radiographs of the boy’s neck and chest showed no obvious foreign body. Bedside flexible laryngoscopy was performed and revealed the partial phone screen protector suspended at the vallecular region. A diagnosis of foreign body in the throat was then established. The foreign body was removed using forceps via direct laryngoscopy under general anesthesia in the operating theatre. Intraoperatively, the foreign body was retrieved as a single piece of screen protector. No lacerations or bleeding were seen over the area of the foreign body lodgement. Post-procedure, the boy was able to tolerate oral ingestion and was well when discharged.

DISCUSSION

Studies have shown that children are at risk of foreign body ingestion because they are inquisitive and at an age when they are learning and exploring and often put things in their mouths. One of the contributing factors to foreign body ingestion may be poor socioeconomic backgrounds where parents are struggling and have less time to monitor their children. Children’s interactions with normal daily activities is expected as active family members. Foreign body ingestion poses a great challenge because infants and smaller children may not be able to express that they ingested something. Foreign body ingestion should always be suspected in young patients. Foreign bodies usually pass harmlessly through the gastrointestinal tract but a few become lodged at various levels of the respiratory or digestive tract. The most common site of lodgement is at the level of the cricopharyngeus.

Clinical symptoms depend mainly on the level or site of the foreign body lodgement; many patients are asymptomatic. Other symptoms may include choking, coughing, vomiting, refusal to eat, and difficult or noisy breathing. Older children may localize the foreign body sensation in the throat. The foreign body may remain unrecognized for a longer duration particularly if there is no acute presenting symptom.

A meticulous history and thorough examination should be performed to exclude the diagnosis of a foreign body ingestion. In our patient, the main symptom mimicked acute gastrointestinal tract infection. Thus, evidence or eye witness accounts of the foreign body
ingestion are crucial to support the history. Assessing the airway is vital in a case of foreign body ingestion to check for possible airway compromise.\textsuperscript{6,7}

Radiography may be performed if the history is unreliable or a metallic object is suspected.\textsuperscript{13} However, plain radiography is limited to radiopaque objects.\textsuperscript{6,10,17} Endoscopic techniques are proven diagnostic tools to evaluate foreign body ingestion.\textsuperscript{4,9,13} We performed bedside flexible laryngoscopy in our patient to rule out an ingested foreign body. This technique provides better comfort and decisive upper airway evaluation especially in pediatric patients.\textsuperscript{5} Furthermore, the technique may confirm the diagnosis if the foreign body is lodged at the supraglottic level.

Managing foreign body ingestion is similar in any practice. Consideration of the patient’s symptoms, the level of lodgement and the type of the foreign body will determine whether immediate intervention or a conservative approach is needed.\textsuperscript{2,4,14} Immediate intervention is needed if the foreign body is located at the supraglottic level because it may dislodge further into the airway and cause fatal complications.\textsuperscript{1}

A foreign body lodged in an airway requires urgent bronchoscopic removal.\textsuperscript{13} Endoscopic removal of a foreign body is performed for identifiable foreign bodies in the upper respiratory or digestive tract.\textsuperscript{1,4,7} Otherwise, watchful observation can be performed for lower esophageal foreign bodies as these may pass harmlessly.\textsuperscript{9} Batteries and sharp foreign bodies also require urgent removal.\textsuperscript{1} Complications following foreign body ingestion may include airway obstruction, mucosal ulceration, esophageal perforation, deep neck abscess, and mediastinitis.\textsuperscript{4,12,14,18}

Precautionary measures must be taken to avoid foreign body ingestion especially in children. Prevention is possible if guardians have watchful control of their children and parental guardians should be aware of the implications of such an event to help reduce the incidence.\textsuperscript{7,14} In conclusion, we should be mindful of the possibility of foreign body ingestion, especially if a child presents with atypical symptoms and has an unreliable history. Societal awareness is also key. A careful and prompt approach during management foreign body ingestion will result in effective diagnosis and treatment.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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