Medical Quiz Answers

A1. Plain lateral X-ray showing foreign body (earring).
A2. Bowel obstruction and bowel perforation.
A3. Observation with a high possibility for the foreign body to pass without complications.

DISCUSSION

Foreign body ingestion is frequently encountered in children, especially in ages six months to three years. Children can be particularly attracted to a variety of foreign bodies such as coins, toys, jewelry, magnets, and batteries; this is mostly due to their appealing external surface, colors, and shapes. The most common ingested foreign body are coins. Other commonly ingested foreign bodies are fishbone, pins, button batteries, magnets, small household items, food boluses and others[1-4].

In cases where older children are involved, further medical attention is warranted because of the need to rule out any underlying psychiatric or neurologic disorder[4].

The number of magnet ingestion is particularly rising, owing to the expansion in manufactured toys with incorporated magnets. Ingestion of magnets and button batteries can have significant morbidity and mortality. Magnet ingestion is considered a threatening problem since multiple magnets can attract each other taking with them bowel loops and thus causing bowel ischemia, bowel perforation, enteric fistulas, and/or peritonitis[5].

In the pediatric population, foreign body ingestion is a major health concern and its clinical scenarios is frequently challenging. They have an estimated incidence of at least 100,000 cases per year, with an annual mortality rate of approximately 1,500 deaths[5]. Younger children are particularly susceptible due to their natural curiosity for oral exploration. Most of the ingested objects are harmless when they are small and blunt and can be spontaneously evacuated from the gastrointestinal (GI) tract. However, several factors can influence the morbidity and mortality in these cases, such as the type of the foreign body ingested, its physical size, shape, the presence of toxic components, and the site of lodgment within the GI tract[6-8].

Swallowed magnets have a wide spectrum of clinical presentations that are most apparent within a week of ingestion; however, few cases can present after weeks to months[7]. They can present with a sore throat, constipation, vomiting, abdominal pain, and even peritonitis. Many single magnet ingestions are asymptomatic and do not require further intervention. In contrast, multiple magnets ingestion can have a complicated course with overt symptoms, even without evident peritoneal signs, by causing pressure necrosis with subsequent perforation, small bowel obstruction, volvulus, or fistula formation. Thus, at least half of patients with multiple magnet ingestion will require surgical intervention[7,8].

Foreign bodies can be primarily diagnosed through plain radiography in 80% of cases. Objects composed of plastic and fish bones are radiolucent, and their diagnosis may be challenging[8].

The management of magnet ingestion is not standardized, and several protocols have been described in the literature. Magnets located within the prepyloric part of the GI tract are recommended to be retrieved by endoscopy. In contrast, surgical intervention by laparoscopy or laparotomy is advised when multiple magnets are found beyond the pylorus to prevent further damage to the bowel. The management of other ingested foreign bodies depends on many factors, including the type of foreign body ingested, its physical size, shape, the presence of toxic components, and the site of lodgment within the gastrointestinal tract[7,8].

CONCLUSION

Foreign body ingestion in children aged six months to three years are common and challenging to diagnose and manage. Magnet ingestions, in particular, are dangerous and can lead to serious complications. Urgent endoscopic intervention or surgical exploration remains the best approach in most of the ingested foreign bodies in children.

Potential Conflicts of Interest: None.

Competing Interest: None.

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