

Radiological Diagnosis of Foreign Body Ingestion (Spoon) – Case Report

Ahmad Mokhtar Abodahab^{1,*}

¹ Radiology Department, Faculty of Medicine, Sohag University, Sohag, Egypt.

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Abstract: In this article, we discuss one of these cases, where a young teenager girl swallowed a spoon. X-ray is an important tool for diagnosing foreign body ingestion or inhalation. It can detect either the foreign body itself when it is a radiopaque object or detect some of its pathological effects like intestinal obstruction or lung collapse if inhaled and lodged in bronchus. Cases of foreign body ingestion may be common objects like needles or small toys, or a strange object that it is difficult to imagine how it has been ingested.

Keywords: Foreign body ingestion, Emergency X ray.

1 Introduction

Foreign body (FB) ingestion or inhalation is a common presentation in the emergency room (ER), particularly among children and mentally confused patients [1,2]. X-ray imaging plays a crucial role in diagnosing and managing these cases. X-rays are important for detecting the foreign body itself when it is radiopaque, such as metallic objects, or for identifying its pathological effects, such as intestinal obstruction or lung collapse. Commonly ingested foreign bodies include coins, small toy parts, or batteries, which typically pass through the upper gastrointestinal tract without major issues. However, the urgency of FB ingestion often depends on the size of the object or its nature (e.g., batteries) [2]. In rare cases, large objects may be ingested, which is unusual given the narrow passage of the oesophagus. While the average diameter of the adult oesophagus is 20 mm, larger objects can sometimes pass due to the oesophagus's relative elasticity. In contrast, the trachea has much more limited elasticity, making the passage of large objects through it far more dangerous and potentially fatal [3].

2 Case Presentation

A 16-year-old girl presented to the ER at Sohag University Hospital after swallowing a foreign object. The attending surgeon requested an erect abdominal X-ray and then consulted with the radiology department. He showed us the X-ray film and asked, "Could this object possibly be a completely calcified gallbladder or bile duct?"

However, when I saw the film, I realized that it was a large spoon. Initially, we suspected the case might involve malingering and that the spoon had been placed between her clothes. So, I requested to personally examine her under fluoroscopy. Soon, she was brought to the radiology department, where we performed fluoroscopy with her

abdomen exposed to rule out the possibility of malingering. To our surprise, we saw the spoon inside her stomach, moving with her breathing and body movements.

When I asked the patient how she had swallowed it, she explained that she had been feeling nauseous but was unable to vomit. In an attempt to induce vomiting, she inserted the wide part of the spoon deep into her throat, but it went in too far, and she ended up swallowing it

I was genuinely surprised that a spoon of this size could pass through her oesophagus, especially considering that she was young and had a small body frame. The spoon was 18 cm long and 4 cm wide at its widest part. Its dimensions were confirmed after extraction via upper endoscopy.

3 Imaging Findings

An X-ray of the abdomen in an erect AP view showed a metallic, radiopaque, spoon-shaped foreign body in the upper abdomen. The tail of the spoon was positioned near the gastroesophageal junction, while the wider part was directed toward the duodenum, indicating that the spoon was lying obliquely inside the stomach. This was further confirmed by fluoroscopy.

4 Discussion

Foreign body ingestion is a relatively common radiological finding, especially in children and individuals with mental confusion. Not all cases of foreign body ingestion require an X-ray, particularly if the object is radiolucent (approximately 20% of ingested foreign bodies) [1].

It is important to rule out malingering when managing cases of foreign body ingestion or inhalation, as fake cases are occasionally presented to radiologists and other healthcare

* Corresponding author E-mail: dr.ahmadabodahab@gmail.com

professionals. Even some well-known scientific websites have reported such fake cases [4]. Fluoroscopy is useful for confirming the location and movement of a foreign body. (Fluoroscopy is a diagnostic imaging modality that provides real-time video of movements within the body by using continuous X-rays over a period of time.) PACS (Picture Archiving and Communication System) is a valuable tool for long-term storage of cases for research and future management [5].



Fig. 1: Plain X-ray erect chest & abdomen showing an oblique located foreign body inside the stomach.



Fig. 2: Fluoroscopic image showing the foreign body (spoon) inside the stomach cavity.



Fig. 3: The swallowed spoon after extraction.

5 Conclusion

Foreign body (FB) ingestion can involve unexpected objects in terms of size, shape, or nature. Generally, the follow-up of FB ingestion, especially when the object is radiopaque, relies primarily on X-rays. It is important to perform imaging from the mouth to the anus, as the FB can move up or down the digestive tract. If it is no longer visible in a lower position, this does not necessarily mean it has been expelled; it may have shifted upward. Multiple X-ray views (AP, lateral, or oblique) are often needed for a more accurate assessment of the FB's location and size. Confirming the FB's position with fluoroscopy, if available, or by direct examination of the relevant body area, is essential to rule out malingering. Doctors should not be confused by unusual foreign bodies or immediately suggest uncommon differential diagnoses.

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