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# Endoscopic removal of a tablespoon retained in the stomach - A case report

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**ABSTRACT**

Even if the ingestion of foreign bodies is common, it is not a common practice to remove endoscopically a big foreign body retained in the stomach. We describe a 27 years old schizophrenic woman transferred to the Kigali University Teaching Hospital (CHUK) after four days of ingesting a tablespoon. An erect abdominal X-ray revealed the teaspoon in the abdomen and was confirmed by an endoscopy. The spoon was successfully removed endoscopically using a polypectomy snare. There were no post-procedure complications, and the patient was discharged after two days of observation.

The upper gastrointestinal endoscopy is a feasible and safe procedure for removing big retained foreign bodies in carefully selected patients.

**Keywords:** Endoscopy, Foreign Body, Stomach, Case report.

## INTRODUCTION

Foreign body ingestion is a common medical emergency. Though the history and presentation can be similar, adult patients frequently present with food impacts rather than foreign body ingestion. The majority of adult patients presenting with foreign body ingestion are asymptomatic [1]. The physical examination may not offer additional information since patients are usually asymptomatic or have minimal symptoms. The examination should aim to rule out the red flag signs of perforation like shock, dyspnea, and respiratory distress [2]. Radiography is the first-line modality for evaluating patients with a possible foreign body in the gastrointestinal tract. Ingested foreign bodies are radiopaque in 83% of cases. Nevertheless, it is important to remember that the thick body parts may prevent the visibility of tiny objects. An abdominal X-ray, frontal and lateral neck and chest X-rays should be taken for efficient diagnosis [3]. A more thorough workup, including laboratory examinations, should be started if patients present with symptoms including chest discomfort, abdominal pain, nausea, and vomiting to rule out differential diagnosis [4].

The foreign body in the stomach is far less common than in the esophagus. Big foreign bodies tend

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to get stuck sometimes in the lower esophageal sphincter. Large foreign bodies should be removed immediately after being detected on a CT scan or x-ray to avoid any compaction they can cause, such as complete obstruction, laceration, and perforation [5]. In acute esophageal obstruction, imaging is not necessarily required to localize a foreign body and should not delay a prompt endoscopy [4].

Adults can accidentally ingest foreign bodies, but it is always important to consider other circumstances, such as psychological issues, self-harm, eating disorders like bulimia, or drug packing [6].

## CASE PRESENTATION

A 27 years old female, known with schizophrenia for more than 10 years, who abandoned the treatment for several years and lost to follow-up by her treating team at the district hospital was transferred to the Centre Hospitalier Universitaire de Kigali (CHUK), the main public referral hospital of Rwanda located in the capital city of the country, for further management of an ingested tablespoon four days before arriving to this hospital. The event happened as the first manifestation of a schizophrenic attack. The ingestion was witnessed by the patient herself and was associated with visual, audio, and tactile hallucinations. She was brought to the nearest health facility since she was logorrheic, aggressive, and had jumped and fallen from a window at a height of three meters which caused abrasions and ecchymotic lesions on her face and a laceration on her left breast.

After being stabilized by the district hospital's mental health team, she started complaining of mild to moderate abdominal pain, and nothing was detected on the abdominal examination. She continued to insist that she had swallowed a tablespoon, but the treating team was reluctant to believe her. The team ordered an erect anterior-posterior abdominal X-ray and, surprisingly, a spoon in the abdominal cavity. A radiopaque spoon-shaped big foreign body was found at the left side, the two-third upper aspect of the abdomen (Figure 1).

The patient was referred for further management. In CHUK's accident and emergency department, the acute care surgery team assessed her and ordered her to have an urgent upper gastrointestinal endoscopy for diagnosis and tentative foreign body removal. The gastroenterology team was informed to schedule an urgent upper endoscopy. The procedure was done the next morning under general anesthesia (intravenous propofol, midazolam, and fentanyl).

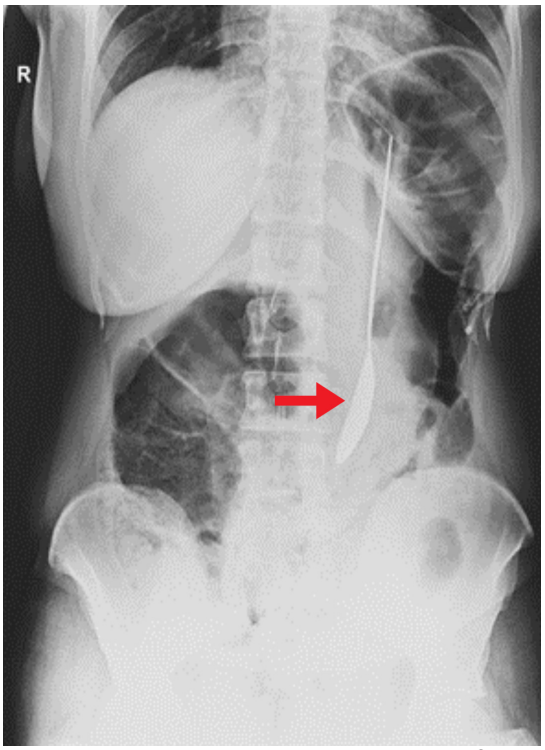


**Figure 1: An erect abdominal X-ray image of a big spoon on the left side of the abdominal cavity (Arrow)**

An endoscope retrieved a tablespoon (a 20 cm length utensil) from the stomach. The spoon was retained in the upper parts of the stomach (fundus and gastric body), and the gastric mucosa showed superficial non-bleeding erosions (Figure 2). Roth Net® retriever was tried several times to grab the spoon but in vain since the spoon bowl was bigger than it (> 4 cm in diameter). The decision was to try another technique. A polypectomy snare was introduced in the endoscopy working channel. The snare was opened to handle the proximal part of the spoon handle, and this was removed slowly and smoothly uneventfully.

The extraction was first exercised three times by pulling the spoon up to the distal esophagus and pushing it down into the gastric body to assess

the smoothness and stability of the removal in the entire esophagus and pharynx. After successfully removing the tablespoon, the patient had an immediate (same procedure) check endoscopy to ensure no mucosal damage or bleeding. She received routine treatment with conventional proton pump inhibitors for possible esophagitis.
The patient was admitted for close monitoring of abdominal pain, melena, and other abdominal signs. They were no occurred complications, and the patient was counter-referred to the district hospital after 48h of observation.

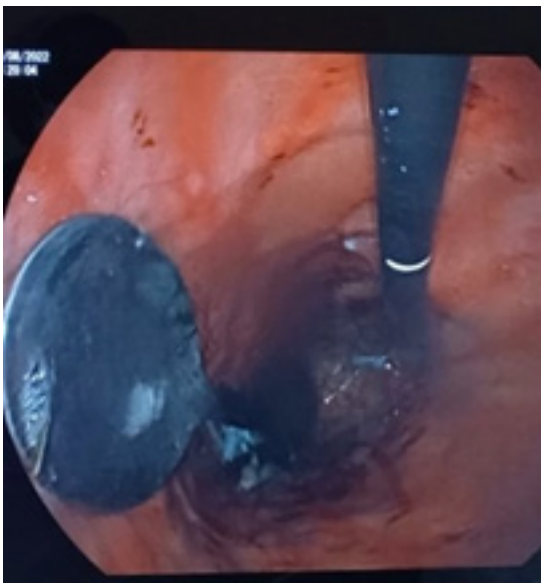

**Figure 2: Endoscopic retro-vision of a tablespoon retained in the fundus and the gastric body**

## DISCUSSION

The patient prompted the diagnosis of tablespoon in the stomach as the chief complaint. It was hard to believe her since she was recovering from an acute psychotic attack, and the physical examination was normal. The history oriented the choice of an appropriate investigation, and the diagnosis was made based on the abdominal X-ray image. Imaging investigations play an important role in making the diagnosis and deciding on the choice of treatment. Imaging modalities can help assess the risks and complications associated with managing big foreign bodies which are seemingly difficult to remove endoscopically or which are impacted for more than one day [7].
In this case, a tablespoon that was approximately 20 cm long was found in the stomach. The patient did not exhibit any signs of hollow organ perforation, mediastinitis, or peritonitis. Therefore, a perforation diagnosis was not taken into account. The risk of a foreign body entering the digestive system depends on its size and shape. The foreign body may become lodged in the gastrointestinal tract when swallowed, causing a partial or complete obstruction. Additionally, it can erode the gastrointestinal mucosal wall, which can result in migration, perforation, and associated complications like abscesses, peritonitis, and sepsis [8]. Patients with past gastrointestinal conditions such as eosinophilic esophagitis, gastroesophageal reflux disease, congenital gastrointestinal defects, and neuromuscular problems are more likely to experience such risks [4].
No lesions or complications were detected on the check endoscopy after the tablespoon extraction. Endoscopic removal of foreign bodies in the upper gastrointestinal tract is an effective and safe procedure [9]. However, deep lacerations, minor gastrointestinal bleeding, ulcers, and perforations are among the potential side effects of the procedure [10]. Surgical intervention is required if foreign-body ingestion is complicated by potentially fatal complications or incomplete endoscopic foreign-body removal [11]. In this case, the procedure was done under the alertness of the surgical team to intervene just in case a failure to remove the spoon or a complication happened.

## CONCLUSION

History taken from the patient is the cornerstone of diagnosing ingested foreign bodies. For radiopaque foreign bodies, the diagnosis is confirmed by imaging modalities. The multidisciplinary team plays a big role in the successful removal of big foreign bodies. Endoscopy is a feasible procedure to remove a big foreign body in the stomach without complications.

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