Diagnostic and Interventional Endoscopy

Case Report

An Unusual Cause of Vomiting and Dehydration in a Geriatric Patient Who Swallowed a Foreign Body—Ring

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Abstract

The risk of morbidity and mortality is high in foreign bodies seen in geriatric ages. The diagnosis of foreign body ingestion is usually difficult in the absence of a suitable history, so patients may present with late clinical findings. Small foreign bodies can be seen on computed tomography as 88% of swallowed foreign bodies are radiopaque. A 75-year-old male patient with Alzheimer's and dementia diseases swallowed a 2.4-cm ring as a foreign body, and subsequently, within days, clinical complications such as vomiting, abdominal pain, and dehydration were detected in the emergency room. The presence of a foreign body was detected in the computed tomography scan; it was treated with endoscopic treatment and removed successfully. We aimed to present this case because of the detection of the ring, which is a rare foreign body in the literature, in a geriatric patient who presented with late-stage clinical symptoms such as dehydration and its removal with a successful endoscopic procedure.

Keywords: Endoscopy, geriatric patient, ring, swallowed foreign body

INTRODUCTION

Among the many potential causes of nausea and vomiting in palliative care populations, gastrointestinal foreign bodies are an extremely rare cause. The risk of morbidity and mortality is higher in foreign bodies seen in advanced ages.[1,2] Foreign bodies in the upper gastrointestinal tract are encountered in the esophagus and later in the stomach due to the anatomical structure. The diagnosis of foreign body ingestion is often difficult in the absence of a suitable history. Since 88% of ingested foreign bodies are radiopaque, direct radiographs of the neck and thorax and computed tomography (CT) may also be helpful in identifying small foreign bodies. Gastroscopy can be performed for the treatment of displayed foreign bodies.[3]

CASE

A 75-year-old male patient with Alzheimer's, dementia, and palliative support in the health care home was brought to the emergency room by the health care team because of nausea, vomiting, and general condition disorder that was present for the past 2 weeks, and the patient could not be fed. He had sensitivity, and his laboratory values were as follows: urea: 64 mg/dL, creatinine: *0.9* mg/dL, sodium: 139 mmol/L, potassium: 3.8 mmol/L, albumin: 1.9 g/dL, C-reactive protein: 5.3 mg/dL, leukocytes: 4.400 µL, 10, hemoglobin: 10.01 g/dL values, blood pressure: 90/60 mmHg, and turgor tone was decreased. In the absence of pathology in the entire abdominal ultrasonography, CT of the entire abdomen without contrast was performed, and a metallic density foreign body was detected adjacent to the left hemidiaphragm inferior (Figure 1). The patient was admitted to the palliative care service and decided for gastroscopy. In the gastroscopy performed under sedoanalgesia, a metallic foreign body with a hyperemic erosive appearance in the fundus-corpus section, a ring with sharp ends, 2.4 cm in diameter, was observed (Figure 2). The foreign body was removed with forceps (Figure 3).

DISCUSSION

The most common causes of nausea and vomiting in geriatric patients are drugs, organ failures, metabolic diseases, gastrointestinal tract obstruction tumors, foreign bodies, gastroparesis, and severe constipation.[4] Ingested foreign bodies vary according to age groups and local characteristics. Upper gastrointestinal tract foreign bodies are especially common in children. They are seen less frequently in the geriatric age group, but they may cause higher rates of morbidity and mortality. Delay in diagnosis and treatment of foreign body ingestion is an important problem that can cause serious complications such as gastric ulcer, perforation, obstruction, dehydration, and malnutrition due to excessive vomiting. In the series in which Türkyılmaz et al[5] examined 188 patients who were followed up with the suspicion of foreign body ingestion, 158 (84%) patients gave a history of swallowing and 145 (77.1%) had positive findings on chest x-ray. When the diagnosis of foreign body is delayed, its treatment becomes difficult. Therefore, the first 24 hours is critical in the early diagnosis and treatment of foreign bodies, and there is an indication for

Figure 1. Foreign body was detected adjacent to the left hemidiaphragm inferior.

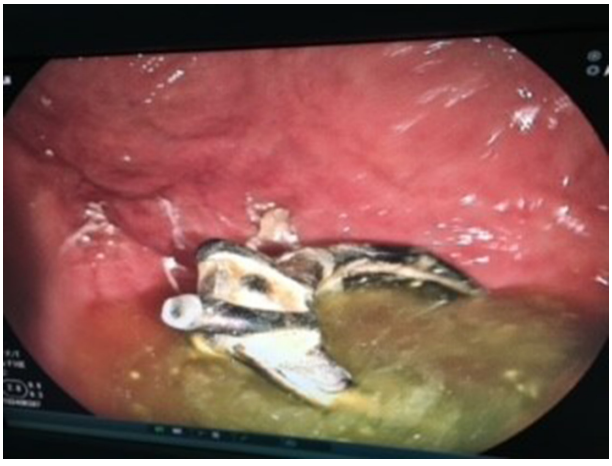

Figure 2. A metallic foreign body with appearance in the fundus-corpus section.

emergency treatment.[6] If a good anamnesis is not taken in geriatric patients, it causes delay in diagnosis. The fact that our patient did not have a history of swallowing any foreign body caused him to present with late clinical symptoms. In swallowed sharp objects, the oropharynx and hypopharynx should be examined, and if it is negative, the first examination should be multi-detector CT for the correct diagnosis and treatment of the patient. In the diagnosis of swallowing foreign bodies, CT has been reported to be 100% sensitive, 92.6% specific and has a negative predictive value of 100% and positive predictive value of 97.9%.[3] Our case was in the geriatric patient group and did not give a history of swallowing due to Alzheimer's and dementia. The transit

MAIN POINTS

- In this case report, a foreign body that was swallowed was considered as an extraordinary cause of vomiting.
- This study helps in understanding the importance of computed tomography drawing in undiagnosed palliative care patients.
- It also helps in understanding the importance of endoscopy in the treatment of foreign body swallowed.

Figure 3. The ring, which is a foreign body, was removed by gastroscopy.

time of foreign bodies varies widely, and it is difficult to predict how long it will take to remove them naturally. Many organic, inorganic, blunt, and sharp objects have been reported in the literature. Some of these are pieces of undigested meat, chicken bones, often coins, pins, and clock batteries.[3,7] Coins remaining in the stomach even 2 weeks after ingestion have been reported. Coins remaining in the stomach even 2 weeks after ingestion have been reported. Endoscopic procedures should be performed if sharp or pointed objects in the gastric or duodenal region have a length of 4 cm and a diameter of more than 2 cm, remain immobile for more than 3 days, and blunt objects persist for more than 7 days, and if they cannot be removed, surgical removal is required.[8] In our patient, despite the sharp-tipped foreign body, it remained stable in the gastric region for about 2 weeks.

Endoscopic procedures can be performed for both diagnosis and treatment.[3] Before the use of flexible endoscopes, Brooks[9] reported perforation in 3 (11.5%) cases and mortality in 1 (3.8%) in a study that removed 26 pieces of meat from the esophagus with a rigid esophagoscope. The treatment of our patient was successfully removed with flexible *gastroscopy* and foreign body forceps accompanied by anesthesia and sedoanalgesia. Our patient was treated with flexible gastroscopy, accompanied by anesthesia and sedoanalgesia. The ring, which was approwimately 4 cm in diameter, was successfully removed with forceps and no surgical operation was required.

CONCLUSION

In the etiology of abdominal pain and vomiting, the etiology of patients in geriatric ages with Alzheimer's and dementia, whose history of foreign body ingestion is not taken, absolutely must be CT scan and scan for foreign body, otherwise clinical symptoms may develop that will cause morbidity and mortality. We aimed to present our case because of the detection of foreign body in CT imaging in the etiology of late clinical symptoms and its successful removal by endoscopy, considering that it would be of interest.

Informed Consent: Consent was obtained from the patient for the procedure and publication.

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Declaration of Interests: The authors have no conflicts of interest to declare.

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