FOREIGN BODY INGESTION – GLASS IN COLON AND RECTUM – A CASE REPORT AND LITERATURE REVIEW

PROGUTANA STRANA TELA – STAKLO U KOLONU I REKTUMU – PRIKAZ SLUČAJA I PREGLED LITERATURE

Samir DELIBEGOVIĆ1, Edvin MULALIĆ1 and Sejo BUTUROVIĆ2

Introduction

Ingestion of a foreign body is not a common emergency condition in small hospitals. Accidental ingestion is more frequent in children than in adults, whereas intentional ingestion is usually found in cases of mental disorders, prisoners, attempted suicides, and in persons with intellectual disabilities. Case report. Glass ingestion is very rare and it is very difficult to predict the consequences of its passing through the gastrointestinal tract. We report a case of accidental swallowing of a large quantity of glass pieces in the ascending colon and rectum diagnosed by abdominal X-ray. The patient did not have any signs of perforation. An expectant attitude was taken, and the elimination occurred naturally.

Case report

A 36-year-old woman with intellectual disabilities was admitted to the Clinic due to abdominal pain. Heteroanamnesis showed that she had allegedly had stom-ach pains for a month. Physical findings showed painful sensitivity in the upper right quadrant, with no signs of peritonitis. The abdominal X-ray showed a great number of intensive shadows in the area of the ascending colon and the rectum (Figure 1). Digital rectal examination produced a lump of stool with pieces of glass. Upon admission, a computed tomography (CT) of the abdomen was performed (Figure 2). In the area of the ascending colon and the rectum there were numerous hyperdense areas of various shapes and sizes, mostly with sharp contours, and the character of a foreign body, with a density of 500 to 1500 HU, 5 to 20 mm in diameter. The colonic loop was distended, especially in the area of the transverse colon, with a lumen up to 5 cm in width.

Due to the persistent pain, surgical exploration was considered, but in the absence of signs of perforation, an expectant attitude was taken, and the patient was treated with laxatives. The patient presented with a gradual regression of pain, and a control X-ray confirmed that the foreign bodies shifted through the intestines (Figure 3 and 4) but they were filled with air, at multiple air fluid levels.

A rectoscopy was performed to establish the condition of the mucous membranes of the rectum, showing...
intact mucous membranes, with several balls of stool. In each ball there was a piece of glass (Figure 5 a and b).

On the fifth day of hospitalization, X-ray of the native abdomen indicated the absence of glass (Figure 6), but showed several air fluid levels.

On the twelfth day of stay, the patient was discharged in a satisfactory general condition.

Discussion

Most intentionally or accidentally ingested foreign bodies pass through the GIT without complications, and only a minority require surgical intervention [2–4]. The occurrence of abdominal pain alerts the physician of possible complications, primarily perforation with the resulting peritonitis. Fatal cases after ingestion have also been described, due to intestinal obstruction [5].

The intestines have a significant ability to protect themselves from perforation in cases of ingestion of sharp objects, such as glass. When a sharp object is stuck in the intestinal mucous, an area of ischemia with a large central concavity develops. The walls of the intestines increase the lumen at the place of contact, enabling easier passage of the sharp object [6]. Moreover, when a sharp object is swallowed, the flow of the intestinal content and the relaxation of the intestinal walls tend to direct the head of the object to the front, and the sharp end to the back [7]. When it arrives in the colon, the foreign body is covered with faecal material, protecting the intestinal wall.

Abbreviations
CT – computed tomography
GIT – gastrointestinal tract

Figure 1. Abdominal X-ray showing a great number of intensive shadows in the area of the ascending colon and the rectum
Slika 1. Rendgenogram abdomena pokazuje veći broj intenzivnih senki u području ascedentnog kolona i rektuma

Figure 2. Abdominal CT in the area of the ascending colon and the rectum showing numerous hyperdense areas
Slika 2. Kompjuterizovana tomografija abdomena, u području ascedentnog kolona i rektuma veći broj hiperdenznih area

Figures 3 and 4. The X-ray confirmed that the foreign bodies shifted through the intestines, but they were filled with air at several air fluid levels
Slike 3 i 4. Rendgenogram abdomena pokazuje pomeranje stranih tela kroz creva, ali crevima ispunjenim vazduhom i sa nekoliko aerolikvidnih nivoa
Isolated groups of glass in the rectum (Figures 1 and 2) cause concern, because it is forgotten that this collection has already passed through the digestive tract, wrapped in stool, which protects the intestinal wall. In this case, the inability of the patient with intellectual disabilities to describe in detail how the ingestion occurred, that is, how the glass entered the GIT, led to difficulties in diagnosis and therapy.

The aim of clinical evaluation was to identify the type, quantity, size and location of the foreign bodies in the rectum. As a rule, removal of a foreign body from the rectum requires experience, with particular care when using various means of extraction, to minimize damage to the mucous membrane. Most foreign bodies can be successfully removed trans-anally, under appropriate anesthesia and using appropriate instruments. Alternative methods are the use of a Foley catheter [8], trans-anal vacuum extraction of glass foreign bodies [9], and trans-anal minimally invasive surgery [10]. Only a small number of foreign body cases, if they go deeper into the sigmoid colon, require extraction by colonoscopy [11]. Rare cases with signs of perforation, peritonitis, or pelvic sepsis, Fournier gangrene [12], or unsuccessful manual extraction, require open surgery or laparoscopy, by massaging (milking) towards the anus or a colostomy. After removal of the rectal foreign body, a proctosigmoidoscopy is mandatory, to exclude injury to the mucous membrane [13].

Conclusion

In the case presented, it was clearly a matter of glass that had passed through the gastrointestinal tract. The attitude of waiting and monitoring the clinical condition of the patient seemed most appropriate; otherwise unnecessary resection of the large intestine would have been performed. This approach requires a great deal of patience, constant monitoring, and a prompt reaction in the case of intestinal perforation.

References