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Case report

A chicken bone stuck in a divertic sigmoid colon, accidentally detected during a colonoscopy

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Abstract

Introduction: The swallowing of foreign bodies is a common clinical disorder.

Aim: The aim of this study is to present the case of a swallowed foreign body and discuss the possible endoscopic approaches.

Case study: We present a case of a 56-year-old woman who had a stuck chicken bone in a divertic sigmoid colon. In CT the presence of the bone in the sigmoid colon with edema and thickening of a wall around the foreign body was confirmed. The bone was removed in a hospital setting during colonoscopy with the use of 'rat teeth' forceps without complications.

Results and discussion: Swallowed foreign bodies are usually excreted from the gastrointestinal tract without any complications, however, sometimes they can lead to serious clinical problems such as obstruction, perforation or bleeding. Most stapled foreign bodies in a large intestine can be removed endoscopically without complications. About 5% of patients require surgical treatment.

Conclusions: The bone removal performed in the hospital setting ensured the possibility of appropriate procedure in case of complications, such as intestinal perforation or bleeding. The endoscopic bone removal prevented the development of complications requiring surgical treatment.

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1. INTRODUCTION

Swallowed foreign bodies are usually excreted from the gastrointestinal tract without any complications, however, sometimes they can lead to serious clinical problems such as obstruction, perforation or bleeding.[1] Most stapled foreign bodies in a large intestine can be removed endoscopically without complications. About 5% of patients require surgical treatment.[2,3]

2. AIM

The aim of this study is to present a case of swallowed foreign body and discuss the possible endoscopic approaches.

3. CASE STUDY

Patient, 56-year-old female, was admitted to the Clinic with the diagnosis of the foreign body stuck with both ends in the wall of the divertic sigmoid colon. The study was conducted due to the occurrence of abdominal pain and diarrhea for 3 months. The complaints subsided spontaneously. Due to the lack of appropriate tools, as well as for the fear of intestinal perforation, no attempt was made to remove the foreign body outside the hospital. The patient was referred to our Clinic. When admitted, the general condition of the patient was good, she negated pain and did not recall the moment of swallowing the foreign body. Chronic diseases were denied. She underwent three operations: appendectomy, open cholecystectomy for cholilethiasis and umbilical hernia surgery with a mesh implant.

A computed tomography (CT) of the pelvis stated the presence of the foreign body with the appearance of bone in the sigmoid colon with thickening of the intestinal wall (Figure 1).

Before the colonoscopy, the patient was given 1 g of cefazolin and 500 mg of metronidazole intravenously. During the examination, the presence of the foreign body stuck with both ends in the divertic sigmoid colon was found (Figure 2). The foreign body was captured with 'rat teeth' forceps and by gentle pulling it was released from the intestinal wall, and then evacuated outside (Figure 3).

The foreign body turned out to be a 34 mm long chicken bone (Figure 4).

In the place after removal of the foreign body, there was a slight bleeding which stopped spontaneously and did not require further treatment.

A few hours after the procedure, an abdominal cavity X-ray was performed which did not reveal the presence of free gas in the peritoneal cavity. The next day laboratory tests did not show a decrease in the number of red blood cells and an increase in the number of leukocytes, nor increase in CRP.

She was discharged home the next day in a good general condition, without any abdominal discomfort. During an outpatient check after two weeks, she also denied the ailments mentioned above.

4. RESULTS AND DISCUSSION

Swallowing the foreign body is a common clinical problem. In the retrospective analysis covering the period of 20 years and 1203 swallowings, that in most cases foreign bodies were execrated independently and naturally (75.6%).[4] Removal during endoscopy was possible in 19.5% cases and was not associated with the occurrence of death.[5,6] Only 4.8% required surgical treatment.

Figure 1. Pelvis coronal CT. Foreign body in the sigmoid colon (red arrow).

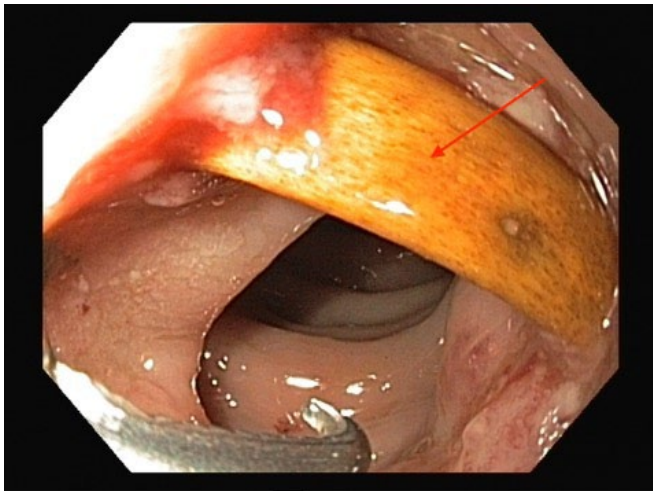

Figure 2. Colonoscopy. Sigmoid colon with chicken bone (red arrow).

Sharp and thin foreign bodies pose a greater risk of the gastrointestinal tract wall perforation or getting stuck in it. Most often these are poultry bones, fish bones, toothpicks or prosthetic elements.[7,8]

Staining usually occurs in places of natural folds or strictures, such as the pylorus, Treitz ligament, ileocecal valve, rectal-esophageal bend.[9–11]

Stalling of the foreign body in a divertic sigmoid colon usually leads to inflammation, perforation of the wall, formation of a limited abscess or diffuse peritonitis. In our case report, there were no perforation of the sigmoid colon, limited abscess and diffuse peritonitis. Laboratory tests did not reveal any abnormalities, only normal white blood cell count (9000 cells/mL) and low C reactive protein (1.8 mg/dL). The diagnosis is usually made after the CT.[12] Patients with perforation, abscess or fistula usually require surgical treatment. Patients with symptoms of diverticulitis may be subjected to conservative treatment with endoscopic removal of the foreign body.[9,13]

Up till now, there are no guidelines regarding the implementation of colonoscopy due to the foreign body in the large intestine in patients who do not have peritoneal symptoms.[8,16] Different tools are used for removal, however the selection of them belongs to the endoscopist. The most commonly used are biopsy forceps, electrocoagulation loops, 'rat teeth' forceps, alligator forceps, polyps gripping forceps.[16] More advanced methods include the use of a thread wrapped around the foreign body, an intestinal balloon to distend the intestine, a laser to cut the bone stuck in the intestine.[17–19] Some authors described a case of removing a toothpick blocked in the intestinal wall removed by inserting a clip on it, which was covered by the electrocoagulation loop.[10]

In the presented case the bone was an accidental finding. It was not possible to determine the moment of ingestion, but it seems that the issue of time was the occurrence of perforation with the development of complications requiring surgical treatment.

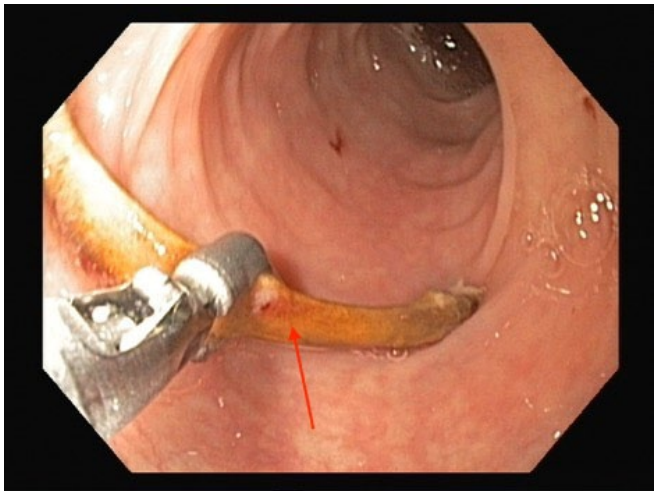

Figure 3. Colonoscopy. Chicken bone caught by 'rat teeth' forceps (red arrow).

Figure 4. Chicken bone removed.

5. CONCLUSIONS

Based on well-known literature, it would be rational to remove the stuck into the wall bone during the colonoscopy of the patient without peritoneal symptoms.

Due to the possibility of complications in the form of intestinal perforation or bleeding, the procedure should be performed in the hospital setting, what will allow for proper treatment in case of their occurrence.

Endoscopic bone removal prevented the development of complications requiring surgical treatment, what was of great importance for the patient after several laparotomies.

Conflict of interest

None declared.

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