

Ingested Fishbone Results in Sigmoid Colon Perforation

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ABSTRACT

The unwitting swallowing of a foreign body is not uncommon and rarely causes perforation of any part of the gastrointestinal tract. We have reported in this case of a 46-year-old man who presented with a clinical picture similar to a perforated peptic ulcer. At the laparotomy exploration, the case was a perforation of the sigmoid colon by a fishbone (6 cm in length). The foreign object was removed and the perforated site was closed by the primary suturing. There were no postoperative complications. Although intestinal perforation due to an ingested foreign object is seldom to be seen, the surgeon must be aware of its occurrence and put it as one of the differential diagnosis in a case of an acute abdomen. A detailed history and computerized tomography (CT) scan are essential tools to detect intestinal foreign bodies in subjects with acute abdomen.

Keywords: Foreign bodies; Fishbone; Sigmoid colon; Perforation; Acute abdomen.

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INTRODUCTION

The ingestion of foreign objects is commonly seen in daily clinical practice [1]. However, it is rare to see a case of the perforated gastrointestinal tract caused by ingested foreign objects as the majority will pass uneventfully. Only 1% may cause perforation depending on the size and shape of the foreign body [2]. Different types of foreign bodies ingestion are found on abdominal radiological films in causality rooms. The majority of them occur accidentally, however, there may be predisposing factors like mental retardation, prison incarceration, bulimia, and alcoholism [3]. Sharp intestinal foreign bodies like fishbone are rare and could stick at any part of the gut leading to perforation. However, the terminal ileum is the most common site of perforation, besides retro-sigmoid junction [4]. We have presented a case of perforated sigmoid colon by a fishbone.

CASE PRESENTATION

A 46-year-old male; heavy smoker was presented to our casualty at Al-Muqdadia General Hospital (Al-Muqdadia City, Diala, Iraq) as a case of acute abdomen. The history has started from 12-hours ago. The patient had started to

complain of sudden abdominal pain that increases gradually in intensity at the lower abdomen. Then, the pain involved all over the abdomen with nausea and vomiting attacks 3 times. There were no preceding gastrointestinal tract symptoms, patient's condition was fit before this problem, and the rest of history revealed no abnormal findings. Physical examination was revealed tenderness and rebound tenderness covering the whole abdomen. The body temperature was 39 °C, pulse rate was 116 beats per minute, and the blood pressure 140/85 mm Hg. The patient was sent for a chest X-ray in erect position that showed bilateral air under the diaphragm. Other investigations were included gastroduodenography, sonography, and hematological tests (complete blood picture and ESR) that showed unremarkable abnormalities. Computerized tomography (CT) scan of the abdomen was not performed owing to the unavailability of this investigation in our hospital. The patient was admitted to the surgical ward under close observation as a case of sealed perforated peptic ulcer. Intravenous fluid and antibiotics were given.

Although vomiting was stopped and his vital signs were returned to normal, still the patient was complaining of persistent pain all over the abdomen. Therefore, we were decided to take him to the theatre for exploratory laparotomy under general anesthesia. The findings were a minute perforated of the sigmoid colon at the recto-sigmoid junction as shown in Figure 1 caused by a fishbone with very minimal soiling of the peritoneal cavity. The fishbone (6 cm in length) was removed as shown in Figure 2 with primary closure. The peritoneal

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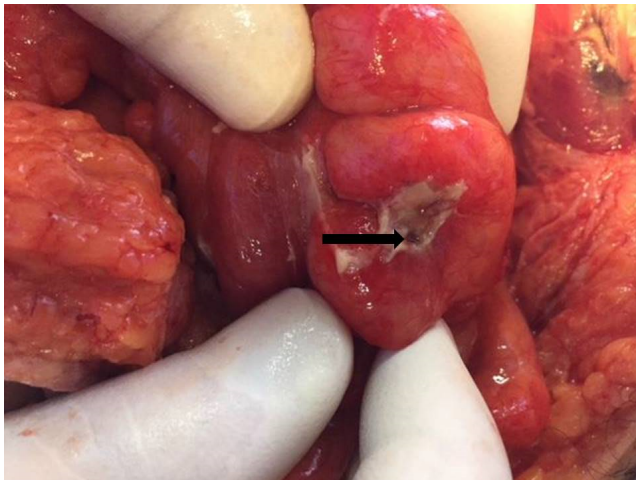


Figure 1. The site of the sigmoid perforation as pointed by a black arrow.

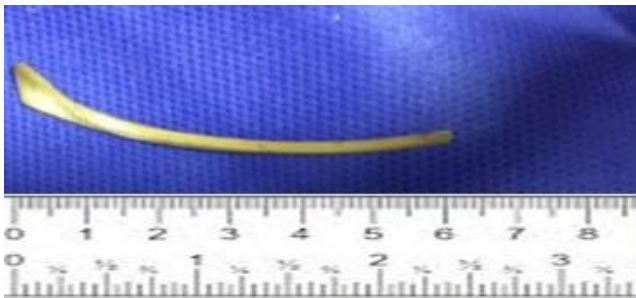


Figure 2. The swallowed fishbone (6 cm in length).

cavity was lavaged with a copious amount of normal saline solution. The patient was recovered uneventfully. Informed consent was taken from the patient to publish his case. .

DISCUSSION

Foreign body ingestion is one of the common emergencies that we are faced and although the majority will pass spon-

taneously; perforation of the gastrointestinal tract may occur in 1% [3].

Perforations of the gastrointestinal tract by sharp foreign objects could occur at any part along the tract. However, they particularly tend to happen at the angulating parts like ileocecal and recto-sigmoid junctions [5–7]. The perforations rarely occur at parts like the appendix, Meckels diverticulum, and hernia sac [8].

The diagnosis of gut perforations by foreign bodies is rarely made preoperatively like in the presenting case (mimic to the perforated duodenal ulcer) as the presentation of these problems are very similar to other surgical conditions like perforated peptic ulcer, diverticulitis, and acute appendicitis. The detection rate of the foreign body as a cause of acute abdomen is very low. While the CT scan is the investigation of choice with high sensitivity and specificity that reaching 100% owing to have a high resolution and high-quality multiplanar capabilities [5, 9, 10].

In a recent review study of 40 investigations and comprising 50 foreign bodies involving the sigmoid colon with diverticulosis [11]. The study has reported that foreign objects within the sigmoid diverticulosis may be associated with different pathological consequences such as inflammation, perforation, abscess, and fistula. These pathological consequences occur depending on the types of foreign bodies, inflammation, perforation, abscess, and fistula are usually due to chicken bones, toothpicks, and biliary stents. While fishbone induces inflammation in sigmoid diverticulosis [11].

Various modalities have used to retrieve the intestinal foreign bodies including endoscopic [12], laparoscopic [13], and laparotomy [7] removal of these objects. Surgical removal is usually passed smoothly in the majority of intestinal perforations due to ingested foreign bodies.

CONCLUSION

This case emphasizes that it is very important to include the ingestion of foreign objects in the differential diagnosis of acute abdomen cases and the value of a good detailed history and CT scan in catching the diagnosis.

CONFLICT OF INTEREST

The author declare that there is no conflict of interest.

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