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Complicated Diverticular Disease of the Colon or Fishbone?

Setti Chaimae[1*], Ahmed Salem Mohamed Lemine[1], Bouassria Abdesslam[1], Elbouhaddouti Hicham[1], Mouaqit Ouadii[1], Benjelloun Elbachir[1], Ousadden Abdelmalek[1], Ait Taleb Khalid[1], Imane Benabdallah Staouni[2], Youssef Alaoui lamrani[2]

[1]School of Medicine and Pharmacy of Fez, Sidi Mohammed Ben Abdellah University, Fez, Morocco
[2]Department of Surgery « A », Department of Radiology, University Hospital Hassan II, Fez, Morocco

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***Corresponding author:** Setti Chaimae
School of Medicine and Pharmacy of Fez, Sidi Mohammed Ben Abdellah University, Fez, Morocco

Abstract | **Case Report**

Introduction: Colonic perforation by ingestion of foreign bodies as fishbones is extremely rare. It represents a challenging emergency: the management should be quickly established to limit its morbidity. ***Case report*:** We report a case of left colonic perforation due to a fishbone. Our patient who ingested fishbone also had colonic diverticulosis. Non-surgical management was performed. The evolution was favorable and our patient recovered. ***Discussion:*** Fishbone ingestion could be related to many complications including bowel perforation. Clinical findings are various. Paraclinical examinations can be challenging due to the limits of each one (X-rays, US, and CT scans). Nonsurgical management should be considered in many cases, and surgical treatment may be delayed. The final management is still controversial. Surgical and non-surgical techniques are both described in the literature.

Keywords: Diverticular disease, fishbone.

INTRODUCTION

Colon perforation is an emergency caused by complicated diverticulitis, mechanical tumor obstruction, or fulminant colitis. It can be secondary to insertion or ingestion of foreign bodies. Inadvertent swallowing of food-derived bone items can lead to perforation of the large intestine, but occasionally the coexistence of double perforation mechanisms may be a diagnostic challenge. The final management is still controversial. Surgical and non-surgical techniques are both described in the literature.

CASE REPORT

A 58-year-old man, with a history of miliary tuberculosis and known for having diverticulosis over the entire large intestine, was admitted to the emergency department because of abdominal pain located in the left iliac fossa associated with vomiting and acute diarrhea. The physical examination showed a conscious patient hemodynamically stable, whose temperature was 38°C, and whose pulse rate was 90 beats/min. There was tenderness in the left iliac fossa. Laboratory investigations showed that the white blood cell count was 17000/mm3. A CT scan of the abdomen and pelvis (Fig 1) showed a collection in the left iliac fossa in contact with thickening and perforation of the left colonic angle due to an ingested fishbone. The proposed treatment was radiological drainage of the collection followed by antibiotic therapy. We removed the drain after 2 weeks. Our patient made an excellent recovery, he was discharged from the hospital and seen in control regularly for 6 months, without functional complaints.

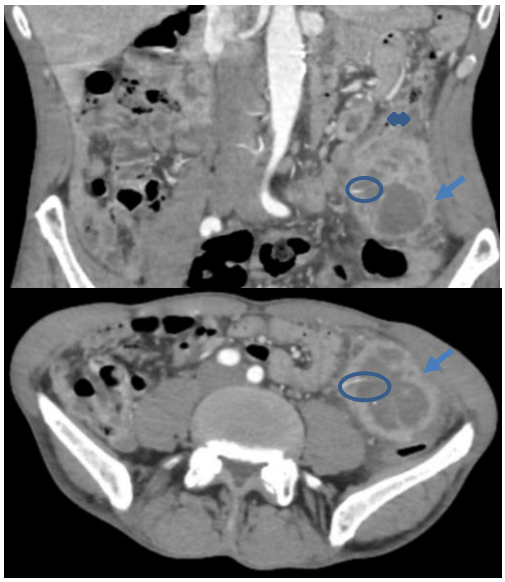

Fig 1

Abdominal CT scan with injection of contrast product, in coronal and axial section, shows an abscessed collection (blue arrow) next to the left transverse colon, seeming to communicate with the latter, with individualization within it of a linear foreign body related to fish bones (blue circle), it is associated with a digestive parietal thickening of the left transverse colon of reactive inflammatory appearance.

DISCUSSION

The clinical manifestations of intestinal perforation secondary to fishbone ingestion are varied. Fishbones can cause lesions in any part of the digestive tract, as they can involve adjacent organs. Previous reports have shown that 83% of foreign body perforations occur in the ileocecum, followed by the rectum and sigmoid colon [1]. The tapered or angled position in the intestine is most likely to be perforated by foreign bodies [2-5]. Abces and peritonitis are the main complications of bowel perforation. Other complications secondary to fishbone penetration of the intestine include duodenal fistula, bladder perforation hepatoenteric fistula, and liver abscess formation [6, 7]. Perforation in the anorectal area can cause perianal sepsis and Fournier's gangrene [8].

CT scan is recommended to recognize fishbones [9]. CT permits assessment of other differential diagnoses and shows encompassing organs that might be involved. In our case, the CT scan showed a collection in the left iliac fossa in contact with thickening and perforation of the left colonic angle due to an ingested fishbone.

The decision to perform surgery for induced perforation depends on the patient's clinical condition. If the patient’s general conditions remain stable if there is no sign of peritonitis and if there is no sign of distal obstruction, nonsurgical management may be proposed. Otherwise, the conservative treatment of intravenous antibiotics may be employed until later surgical intervention. If the surgical treatment is delayed, the imaging should be repeated before the operation, as the fish bones may migrate from the original site and cause complications in adjacent organs [10].

Colonic diverticulosis is a common anatomical anomaly whose incidence increases with age. Its pathophysiology is imperfectly known, involving multiple genetic and environmental factors. In the majority of the cases (70%), this anomaly remains asymptomatic and does not require any specific therapeutic management [11]. Septic complications of colonic diverticulosis remain a real public health issue, especially in industrialized countries. The place of surgery has long been debated and there is still no consensus. The more consensual indications for surgery are abscesses complicating diverticulosis. The presence of an immunocompromised ground, stenosis or asymptomatic fistula is also a commonly accepted surgical indication [11].

CONCLUSION

For diverticulosis and for perforation of the gastro-intestinal tract by an ingested fishbone, surgical and non-surgical techniques have been described in the literature. We report a case of left colonic perforation due to a fishbone in a patient with colonic diverticulosis. Our patient made an excellent recovery after non-surgical management. The real issue, in this case, is to put an early diagnosis based on the right clinical and paraclinical finding to choose the adequate management: surgical or nonsurgical treatment.

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