

Bowel Perforation in a Strangulated Hernia Caused by a Chicken Bone: Case Report

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Abstract: Introduction: Perforation of a strangulated hernia by a foreign body is a very uncommon occurrence with a few cases reported in the literature. Case report: Here we present a case of a 76 year old male patient who was admitted to our emergency department with an irreducible and painful right inguinal hernia. Surgical exploration revealed a strangulated inguinal hernia containing a segment of the ilium perforated by a chicken bone. A resection of the perforated segment and a termino - terminal anastomosis was performed and the hernia defect was closed by the Bassinet technique. Discussion: The Ingestion of a foreign body is frequent for children, in adults it's an uncommon occurrence who usually pass spontaneously without the need for surgery, but it may rarely causes complications such as bleeding, obstruction, abscess or sepsis. These complications can be manifest as a strangulated hernia by the incarceration of chicken bone which should be diagnosed and treated early to reduce morbidity and mortality. Classic treatment for foreign perforation is open surgical removal with local bowel repair or segmental bowel resection. Prevention is very important by special care to people with risk factors and the feeding in nursing homes should be very careful. Conclusion: Perforation of an irreducible hernia by a chicken bone is very rare and not reported currently. It may be life - threatening and must be diagnosed and treated early.

Keywords: Strangulated hernia, Bowel perforation, Chicken bone

1. Introduction

The ingestion of foreign bodies is not an uncommon occurrence, usually it may pass through the gastrointestinal tract without complication. However, it may rarely cause complications such as perforation or obstruction. We report an unusual case of perforation of a strangulated hernia bay a chicken bone.

2. Case Report

A 76 year old male patient, followed for mild dementia, was admitted to the emergency department of our hospitalfor acute pain over the right groin area.

Physical examination found an irreducible and painful right inguinal hernia. The patient had good hemodynamic status with normal blood pressure and normal laboratory findings, so he was brought immediately to the operating theatre for emergency surgery.

Surgical exploration by kelotomy revealed a strangulated inguinal hernia containing a segment of the ilium perforated by a chicken bone (figure 1). A resection of the perforated segment (figure 2) and a termino - terminal anastomosis was performed and the hernia defect was closed by the Bassinet technique.

The patient recovered well and left the hospital in the fifth day.

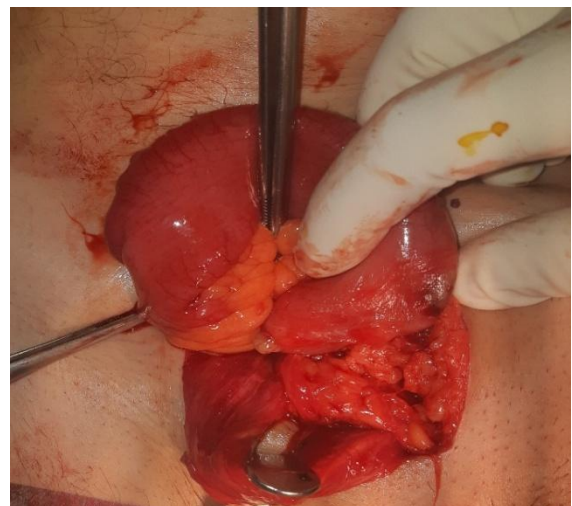


Figure 1: Preoperative image after opening the hernia sac



Figure 2: Image after ileal resection and chicken bone

3. Discussion

The Ingestion of a foreign body is frequent for children, especially for the age between 6 months and 3 years old[1], for adults this event occurs in groups at risk such as prisoners, psychotically disturbed persons, alcoholics person and people who wear dentures [2] [3] [4] [5] [6] [7] [8] [9] [10] [11].

The majority of foreign body pass spontaneously without the need for surgery, but it may rarely causes complications such as bleeding, obstruction, abscess or sepsis [12].

Foreign bodies tend to obstruct or perforate digestive tract in the segment where there is a sphincter, an acute angulation a physical narrowing or a transition between fixed and mobile portion of the bowel[10][13][14].

In our patient the chicken bone passed through the segment of the ileum which was in the hernia and we believe that it caused strangulation then perforation because of the acute angulation and the pathological narrowing due to the hernia.

The complications of foreing body ingestion may occur early as acute localized or generalized peritonitis through perforation of hollow organ, intraperitoneal or digestive bleeding, moreover these complications may remain asymptomatic and showup later as a liver abscess, a perianal abscess or Fournier's gangrene due to anal perforation, other forms of complications have been described like a fistula between digestive tract and urinary taract, portal vein or inferior vena cava [2] [9] [13] [15] [16] [17] [18].

The incarceration of chicken bone in an inguinal hernia may be manifest as a strangulated hernia as was the case of our patient, this is an uncommon occurrence and few cases have been published.

Preoperative diagnosis of foreign body ingestion can be made radiologically by standard radiography which has a high sensitivity for metal objects [2][3][7][16].

However, CT scans can detect non - metallic foreign bodies in the form of hyper - density, it may also localized pneumoperitoneum, intraabdominal abscess or regional fatty infiltration which points to the perforated region of the digestive tract.

Surgery is indicated in complications such as bleeding, peritonitis, abscess or fistula [6][14]. Classic treatment for foreign perforation is open surgical removal with local bowel repair or segmental bowel resection [6][18].

Endoscopic removal and laparoscopic exploration have been reported as new modality in the management of ingested foreign bodies complications, however it is challenging and technically difficult in the small intestine localization or an incarcerated hernia [6][16].

In our case, the diagnosis of strangulated hernia was clinical which indicated urgent surgery to avoid ischemia or necrosis of the incarcerated intestinal segment, and the finding of

perforation of the incarcerated intestinal segment by chicken bone was preoperative.

Early diagnosis and immediate extraction of the foreign body is important for reducing morbidity and mortality. The key is prevention, a special care is needed to people with risk factors and the feeding in nursing homes should be very careful.

4. Conclusion

Perforation of an irreducible hernia by a chicken bone is very uncommon, it may be life - threatening. To prevent that, special care is needed to people with risk factors and feeding should be careful for In nursing homes. However, an early diagnosis with emergent surgery can avoid complications and reducing morbidity and mortality.

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