

Letters to the Editor

Intestinal perforation caused by incidental ingestion of a fish bone. Value of CT in the diagnosis

Key words: Intestinal perforation. Foreign body. Fish bone.

Dear Editor,

A 35-year-old male with history of an appendectomy 20 years ago came to our Emergency Department showing abdominal pain of 1 week's development associated with nausea, vomit and fever during the last 48 hours. A physical examination revealed right iliac fossa pain and peritoneal irritation. Several diagnostic tests were performed. A blood test showed 16,400 leukocytes/ μ L with 80% neutrophils and an abdominal radiography revealed no alterations. An abdominal CT was done (Figs. 1 y 2). The patient underwent surgery which revealed an inflammatory plastron consisting of a distal ileal handle and an abscess inside. Besides purulent material, the abscess contained a foreign object of 1 mm of diameter and 4 cm of length. Thorough examination of the area revealed no current perforation and no other alterations of the abdominal cavity. The patient progressed favorably and he was discharged one week after the operation. Diagnosis: distal ileum perforation caused by consuming a sea bass' bone (*Dicentrarchus labrax*).

Discussion

Intestinal perforations caused by foreign objects are uncommon. Most of the intakes, if they pass through the esophagus correctly, they will cover the whole bowel causing no harm (1)



Fig. 1. Transversal abdominal CT. A 2 x 2 cm collection which was adjacent to a distal ileal handle. Inside the collection, a linear radio dense foreign object was identified. It seemed to come from the intestinal lumen and end at the abdominal internal oblique muscle.

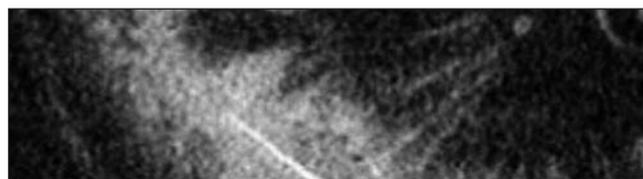


Fig. 2. Transversal abdominal CT focusing on right iliac fossa that shows in detail a 3.5 cm-long radio dense foreign object.

and being expelled in about one week. However, there are certain areas where the impact can occur because of its narrowness, such as: pylorus, Treitz angle, ileocecal valve and the sigmoid colon-rectum junction (2). Several studies proved use of false teeth, mental disease or alcoholism (3) as risk factors for the involuntary intake of foreign objects. Since it is an accidental intake, it is not uncommon to find, up to 93% (3) of the cas-

es, objects belonging to the ordinary diet of the patient. These things got blocked when going through a narrow area and produce a local inflammatory reaction with disruption of mucosa barrier which facilitates bacterial translocation and the subsequent infection. The spreading of this process can cause perforation and an abscess around, which can end up in acute abdomen, when not controlled. The most common location of this process is distal ileum (3,4), followed by colorectal area (2). Therefore it is necessary to make differential diagnosis among the different causes of acute abdomen. Imaging methods have been considered essential to make a correct diagnosis before surgery. Ultrasonography and CT stand out among them because they enable to identify not only the pathologic area but also the cause (like in our case). Despite that, there is a large percentage of cases (up to 91% in some studies) (4) being diagnosed in the operating theatre, mostly due to oversights of the patients (3) and difficulty to visualize tiny radio dense objects with the imaging methods. CT (5), through slices in the three dimensions of the space, is very helpful in the diagnosis, since it enables to reveal the whole foreign object.

M. P. Guillén-Paredes, R. Lirón-Ruiz, J. A. Torralba-Martínez,
J. G. Martín-Lorenzo and J. L. Aguayo-Albasini

*Service of General and Digestive Surgery. University General
Hospital Morales Meseguer.
Murcia, Spain*

References

1. McCans DE, Kurchin A, Hinshaw JR. Gastrointestinal foreign bodies. *Am J Surg* 1981; 142: 335-7.
2. Obrador A, Barranco L, Reyes J, Gayà J. Colorectal trauma caused by foreign bodies. *Rev Esp Enferm Dig* 2002; 94(2): 109-10.
3. Goh BK, Chow PK, Quah HM, Ong HS, Eu KW, Ooi LL, et al. Perforation of the gastrointestinal tract secondary to ingestion of foreign bodies. *World J Surg* 2006; 30(3): 372-7.
4. Pinero Madrona A, Fernández Hernández JA, Carrasco Prats M, Riquelme Riquelme J, Parrila Paricio P. Intestinal perforation by foreign bodies. *Eur J Surg* 2000; 166(4): 307-9.
5. Bernard B, Mhanna T, Dugas B, Gasquez P, Valette PJ, Marx P, et al. Jejunal perforation by a fish bone diagnosed by CT-scan: report of two cases. *Ann Chir* 2005; 130(10): 636-9.