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Case Report

Neither appendicitis nor sigmoiditis; it is an appendagitis

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ABSTRACT

Appendagitis is defined as the inflammation of an omental appendix; it is a rare and often unrecognized cause of abdominal pain. Clinically, appendicitis simulates appendicitis or sigmoiditis; the evolution of radiology and in particular CT scans has facilitated the diagnosis and thus avoided hospitalization or even more unnecessary surgery. The treatment is conservative and relies on non-steroidal anti-inflammatory drugs and analgesics. The evolution is often favorable within 5 days of treatment on average. In reporting this clinical case, we tried to elucidate the diagnostic difficulty of this entity and to bring to light its different aspects through a brief review of the literature.

Keywords: Appendagitis, Epiploic appendix, Conservative treatment

INTRODUCTION

Epiploic appendagitis is defined by the inflammation of an epiploic appendix, it results in a painful abdominal table of brutal installation, which manifests itself by a localized defense located mainly at the level of one of the 2 iliac fossae; the diagnosis is often postponed after a radiological examination and unfortunately sometimes after a surgical intervention which makes the knowledge of this pathology essential before the approach of any patient presenting with an acute abdominal pain.[1]

CASE REPORT

This is a 35-year-old young man, with no significant pathological history; presenting to the surgical emergency department complaining of abdominal pain developing for 18 hours without nausea, vomiting, transit disorder or digestive hemorrhage all evolving in a context of fever and conservation of the general state. The general examination found a conscious patient, hemodynamically and respiratory stable, slightly febrile at 37.8°C, normotensive and normocardic, the patient was slightly overweight with a BMI of 28.5 kg/m². The abdominal examination showed a left iliac fossa defense, the rest of the abdomen was free, the rectal examination was without abnormality and the hernial orifices were free. Biologically, there was a hyperleukocytosis of 12300/mm³, predominantly neutrophilic, and an elevation of CRP to 25 mg/l. An injected abdominal CT scan was performed and found: a fatty formation attached to the anterior peritoneum and located at the left iliac fossa associated with an infiltration of the surrounding fat, suggesting a torsion of the epiploic appendix: appendagitis (Figure 1). The patient was followed as an outpatient, put on analgesics and non-steroidal anti-inflammatory drugs with a good clinical evolution after 4 days of treatment marked by the total regression of the pain.

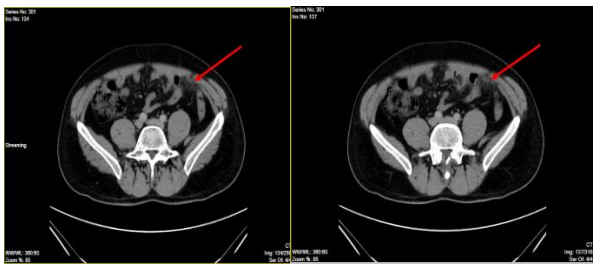

Figure 1: CT images showing a fatty formation in the left iliac fossa with infiltration of the surrounding fat.

DISCUSSION

Anatomically, the omental appendages are pedunculated fatty suspensions covered with peritoneum attached to the different segments of the colon by a narrow implantation base. There are about a hundred of them with a size varying from 0.5 to 5 cm in length (up to 15 cm in some cases), each appendage is centered by a vascular pedicle emanating from the colonic vascularization and of terminal type (Figure 2).[1,2] Hypotheses on the role of omental appendages have been reported in the literature (a) role of mini-omentums: bacteriostatic and local anti-inflammatory; (b) blood reservoir during colonic vasoconstriction; (c) colonic absorption; and (d) fat reserve zone.

Figure 2: Subtotal colectomy specimen with presence of thickened omental appendages.

Pathophysiologically; 2 mechanisms are currently accepted (a) twisted infarction of the epiploic appendix facilitated by their high mobility in the peritoneal cavity and pediculated character; (b) central venous spontaneous thrombosis infarction.[5]

These two phenomena are responsible for a propagation of the inflammation by contiguity to the neighbouring peritoneal fat. In case of de novo venous thrombosis torsion, the appendage is said to be primary. If the inflammation occurs as a result of a diffusion of the inflammation from a nearby organ the appendage is said to be secondary.[6] Epidemiological reminder: Lynn et al was the first to report an observation of this pathology in 1956.[7] The sex ratio is 1; appendagitis is observed in young subjects with a peak between 20 and 50 years of age, the incidence of the pathology is estimated between 2 and 7%; the prevalence of appendagitis is underestimated, because of the number of under-diagnosed cases.[8,9]

Overweight is the only risk factor frequently associated with appendagitis.[5] Clinical study was that the abdominal pain is the mayor symptom, it is always focal and often indicated by the patient's finger; it is exacerbated by mobilization, coughing and deep breathing and predominates mainly in one of the two iliac fossae mimicking either acute appendicitis in the right localization and diverticular sigmoiditis in the left.[1,8,10] In general, there are no defenses or transit disorders.[5] Rarely the pain is associated with nausea, vomiting or fever.[1]

Exceptionally, an epiploic appendix becomes embedded in an inguinal hernia, giving the picture of a painful mass.[11] Biologically; appendicitis simulates the picture of sigmoiditis or appendicitis without inflammatory syndrome, a normal CRP and/or absence of hyperleukocytosis is frequently found.[2] In the normal state, epiploic appendages are invisible on imaging.[2] Ultrasound is not the reference examination for the diagnosis of epiploic appendagitis, it only shows non-specific signs.[12] CT with contrast injection is the reference examination, the appendage presents itself as an ovoid formation of paracolic fat density delimited by a thin band rehausing after contrast injection, associated with infiltration of nearby fat; the center may be hyperdense witness of vascular thrombosis.[1,13]

Magnetic resonance imaging gives a similar appearance to the CT image, with a peripheral ring infiltration corresponding to the inflammatory component of the serosa and which is enhanced after injection of gadolinium.[14] The main negative signs on CT and MRI are the absence of colonic diverticulosis and the absence of intraperitoneal effusion.[15]

Laparoscopy is a recognized diagnostic method in case of contraindication or absence of CT scan and MRI or in case of persistent diagnostic doubt.[16] The treatment is strictly conservative and outpatient based on the administration of analgesic and non-steroidal anti-inflammatory drugs for an average of 10 days; pain regresses in less than a week and normalization of the CT scan occurs over 6 months.[1]

CONCLUSION

Epiploic appendagitis is a rare pathology but should be known by all physicians, the diagnosis is often difficult contrasting with a simple management. The occurrence of complications such as abscess or occlusion is exceptional.

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