

Primary Epiploic Appendagitis: An Underappreciated Diagnosis: A Case Report

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Abstract

Epiploic fringe torsion (or appendagitis) is a rare condition that occurs mainly in adults between 20 and 50 years of age and is often mistaken for acute appendicitis or diverticular sigmoiditis. We report here a case of a young patient referred to the emergency department for an acute abdominal presentation. The diagnosis was made by abdominal CT scan.

Keywords: Primary Epiploic Appendagitis; Computed Tomography (CT); Acute Appendicitis or Diverticular Sigmoiditis

Introduction

Primary epiploic appendagitis is considered a rare cause of acute abdomen. They are frequently misdiagnosed as acute appendicitis or acute diverticulitis and the diagnosis is usually made during surgery. We report a case in which computed tomography (CT) suggested the diagnosis and avoided unnecessary surgery.

Medical Observation

A 40 year old patient, with no notable pathological history, was admitted to the emergency room for right iliac fossa pain, of moderate to severe intensity, with no particular radiation, evolving for 2 days, without fever, vomiting, transit disorders or urinary signs. On clinical examination, the patient was afebrile at 37°C with a slight tenderness of the right iliac fossa without defence, the rest of the abdomen was supple. The biological workup showed a biological inflammatory syndrome with WBC 11500, and CRP 35.5. Abdominal ultrasound was inconclusive. The abdominal CT scan showed a well-limited oval tissue formation in the right iliac fossa, with a hypodense centre and hyperdense periphery, giving the appearance of a Ring Sign, associated with densification of the surrounding mesenteric fat and suggestive of appendagitis.

Medical treatment was started with non-steroidal anti-inflammatory drugs and analgesics. The clinical and biological evolution was favourable and the patient was discharged on the 3rd day, totally asymptomatic. The patient was seen again at the consultation after 15 days; his clinical examination and biology were normal.

Discussion

Primary epiploic appendagitis results from torsion with spontaneous venous ischaemia or thrombosis of an epiploic appendix [1]. The incidence of this condition is not really known and varies from 2 - 7% in patients hospitalised with suspected appendicitis or sigmoiditis. It is a rare condition that occurs mainly in adults between 20 and 50 years of age with a slight male predominance [2].

The epiploic appendages correspond to subperitoneal fatty formations whose length varies from 0.5 to 5 cm (average 3 cm). They are distributed along the colonic framework and are absent from the rectum, their locations being, in order of frequency, the rectosigmoid hinge (57%), the ileo-oral region (26%), the ascending colon (9%), the transverse colon (6%) and the descending colon (2%). Their physiological functions are not clearly defined [3,4]. Their precarious vascularisation and pedicle morphology predispose them to torsion, ischaemia and inflammation, phenomena grouped under the name of appendagitis.

This pathology is clinically manifested by localised abdominal pain, which often evokes ileocecal appendicitis or diverticulitis.

The blood count sometimes shows a moderate hyperleukocytosis. On the other hand, in the face of this symptomatology, the diagnosis of appendicitis is rarely evoked, hence the interest of imaging. Ultrasound showed a fatty nodule (hyperechoic with a hypodense border) in the anterior subparietal, in contact with an otherwise normal colon. Abdominal and pelvic CT with injection of iodinated contrast is the reference examination for appendagitis. It can make the diagnosis by showing a hypodense nodule adjacent to the colonic wall, with a peripheral hyperdense border reflecting inflammation of the serosa [4]. Diagnostic laparoscopy is an alternative diagnosis when abdominal CT is not indicated, unavailable or when there is diagnostic doubt, as in the case of our first two patients. Indeed, laparoscopy is currently recognised as having a role to play in reducing the parietal morbidity of laparotomies and shortening the duration of hospitalisation [5,6].

The treatment of appendagitis is always conservative with analgesics (paracetamol) and anti-inflammatories for about ten days. The symptoms often resolve spontaneously in less than a week [7].

Conclusion

Primary epiploic appendagitis is a rare and underestimated etiology of acute abdominal syndrome. Its radiological appearance is characteristic and its diagnosis allows unnecessary abdominal surgery to be avoided. Medical treatment with analgesics and anti-inflammatories avoids an increase in the length of hospital stay and unnecessary antibiotic therapy.

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