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Case Report

A Case Report of Epiploic Appendagitis that did not Respond to Conservative Management

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Abstract

We present the case of a 35-year-old male who presented with 6 days of acute abdominal pain. Upon performing a computerized tomography (CT) scan of his abdomen and pelvis, he was diagnosed with epiploic appendagitis. Non operative management was unsuccessful and a laparoscopic epiploic appendagitis resection was performed. There was full resolution of symptoms by the second day post operation on which the patient was discharged.

Keywords: *Epiploic Appendagitis; Conservative Management; Computerized Tomography (CT)*

Introduction

Epiploic appendages are fatty formations covered with peritoneum that originate anteriorly and posteriorly to the taenia coli of the large intestine. They contain branches of one or two circular end arteries and a central draining vein that originate from the colonic vascularization and attach to the appendages via a vascular stalk. Epiploic appendagitis can occur when there is torsion of the vascular stalk and subsequent ischemia, or less commonly from thrombosis of the central draining vein, hernia incarceration, intestinal obstruction and intraperitoneal loose body.

Epiploic appendagitis presents with acute onset of pain in the left or right lower quadrant, with the former being more common. Patients are usually afebrile, without leukocytosis, nausea or vomiting. It is often mistaken for acute diverticulosis, appendicitis, omental infarction or sclerosing mesenteritis. Epiploic appendagitis can be diagnosed using CT and less commonly, ultrasound (US) and magnetic resonance imaging (MRI).

In order to determine the therapy of choice for this pathology, we performed a review of the existing literature. The review revealed that while majority of cases of epiploic appendagitis are managed conservatively, there are situations when the use of laparoscopy is indicated and the failure to operate may result in negative outcomes.

Though this condition can be successfully diagnosed through imaging and treated through conservative management, one must employ sound clinical judgement to weigh the benefits of conservative management verses the risks of recurrence and the development of more serious complications.

Case Presentation

The patient was a 35-year-old M with 6 days of abdominal pain, elevated WBC to 14K, stable vital signs, initially managed nonoperatively however pain persisted. I took him to OR for laparoscopic epiploic appendagitis resection. Pain resolved on POD 2. He was discharged POD 2.

Discussion

Epiploic appendages are fatty formations covered with peritoneum that originate anteriorly and posteriorly to the taenia coli of the large intestine. The size of these appendages ranges from 0.5 to 5 cm long. They contain branches of one or two circular end arteries and a central draining vein that originate from the colonic vascularization and attach to the appendages via a vascular stalk [1]. The appendages can be found anywhere along the large intestine but are usually found in greater numbers in the walls of the sigmoid and transverse colon. The exact function of epiploic appendages is not known, but there have been proposals that they function to provide cushioning, immunity and improvement in colonic absorption by functioning as blood reservoirs [2].

Though complications arising from epiploic appendages are rare, a few mechanisms have been proposed for the occurrence of epiploic appendagitis. Due to their precarious vascularization from colonic arterial branches and their pedicled morphonology, epiploic appendages are predisposed to torsion and subsequent ischemia [3]. Though not as common, spontaneous venous thrombosis of the central draining vein can also cause epiploic appendagitis [1]. A review of 208 cases showed that seventy-three percent (73%) of cases of epiploic appendagitis were caused by torsion and inflammation, eighteen percent (18%) by hernia incarceration, eight percent (8%) by intestinal obstruction and less than one percent (< 1%) by intraperitoneal loose body [4].

Epiploic appendagitis is mostly seen in middle aged adults (forties and fifties) and is more common in men. It is associated with obesity, hernia, strenuous exercise and colonic diverticula [5]. It presents with acute onset of pain in the left or right lower quadrant, with the former being more common. Patients are usually afebrile, without leukocytosis, nausea or vomiting. Due to the lack of pathognomonic clinical features the diagnosis of epiploic appendagitis is difficult and it is often mistaken for acute diverticulosis, appendicitis, omental infarction or sclerosing mesenteritis [5].

Epiploic appendagitis can be diagnosed using CT and less commonly, US and MRI. On CT, epiploic appendagitis can be diagnosed by detection of a fat density ovoid lesion, containing a central high attenuation focus and measuring less than 5 cm in diameter. Thickening of the parietal peritoneum, secondary to the spread of inflammation may also be observed. On ultrasound oval, non-compressible hyperechoic masses at the site of maximum tenderness can be seen. T1- and T2-weighted MRI show a focal lesion with the signal intensity of fat while contrast – enhanced T1- weighted MRI shows an enhancing rim around the oval fatty lesion [4].

There is much debate surrounding the most suitable treatment of epiploic appendagitis. Some physicians believe that conservative therapy is the way to go and describe the condition as self-limiting, with patients recovering in less than 10 days with oral anti-inflammatory medication. This is a widely applied form of therapy which is practiced with success and safeguards the patient from unwarranted surgery and unnecessary antibiotic use [1]. However, conservative management is not always successful as in the case of our patient where symptoms did not resolve and therefore surgical intervention was indicated. In a study conducted by Sand., *et al*. 40% of the patients studied already had the same pain at the same localization, for two days on average, four weeks before presenting to the emergency department. This indicates that conservative forms of therapy might have a tendency for recurrence [1]. Furthermore, opting for conservative therapy may be detrimental for patients with more virulent pathologies who may suffer serious septic complications if not treated promptly. It should also be considered that epiploic appendagitis can present with complications such as pericolic abscesses, intestinal obstruction, massive bleeding, intussusception, adhesion, colon perforation and even fatalities [6]. One therefore has to weigh the risk of these complications occurring against the obvious benefits of utilizing conservative management.

Conclusion

In a patient with localized lower quadrant, acute abdominal pain that is not associated with fever, leukocytosis, nausea or vomiting, the diagnosis of epiploic appendagitis should be considered as one of the differentials. Though this condition can be successfully diagnosed through imaging and treated through conservative management, one must employ sound clinical judgement to weigh the benefits of conservative management verses the risks of recurrence and the development of more serious complications.

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