

# Primary Epiploic Appendagitis: A Rare Cause Of Acute Abdomen

A Mohamed, M Abukhater

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## Abstract

Acute epiploic appendagitis most commonly manifest with acute lower quadrant pain. Its features are similar to those of Acute Appendicitis or Acute Diverticulitis. This is a case report of two patients who presented to ER of KFMC with acute abdomen. One patient operated upon for acute appendicitis but preoperative finding was torsion of the appendices epiplocae of caecum with normal appendix both grossly and histopathologically. The second patient presented with signs and symptoms of Acute Cholecystitis, diagnosed as a case of torsion of the appendices epiplocae by CT scan of the Abdomen and was treated conservatively.

## INTRODUCTION

Primary epiploic appendagitis is a relatively rare condition in which torsion and inflammation of an epiploic appendix result in localized abdominal pain. This is a non-surgical situation that clinically mimics other conditions requiring surgery such as acute diverticulitis or appendicitis. Accurate diagnosis and treatment of this disease process can result in avoiding costly hospitalization, unnecessary antibiotic courses and the morbidity and mortality associated with surgical procedures.

## CASE REPORT

The first case was a 36 years old male patient who presented to our ER with complaint of right side abdominal pain for two days duration associated with nausea and vomiting.

On examination, the patient was afebrile with normal vital signs. Abdominal examination revealed tenderness and rebound tenderness over the right lumbar and right iliac fossa regions.

Investigations: CBC, Urea & Electrolytes, and urine analysis were normal. He was diagnosed to have acute appendicitis. Laparotomy through grid iron incision was done which revealed torsion of appendices epiplocae of the caecum. The twisted appendices was excised. Figure 1

The appendix was normal as confirmed by histopathology. The patient was discharged on the third post operative day.

The second case was a 25 years old, male patient who presented in ER with complaint of right upper abdominal pain for three days duration associated with nausea and vomiting. There was no history of flatulence dyspepsia, jaundice, fever or rigors. Patient was febrile, temperature 38 ° C with stable other vital signs.

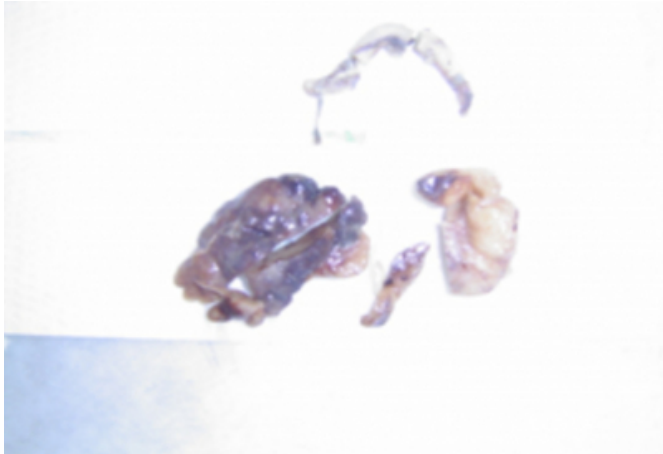
Abdominal examination revealed tenderness and rebound tenderness over the right hypochondrium with positive Murphy's sign. His biomedical investigations were normal and he was admitted as a case of acute cholecystitis. The ultrasound of the abdomen excluded the diagnosis of acute cholecystitis.

Contrast enhanced CT scan of the Abdomen showed ovoid fat density lesion with surrounding hyperdense and inflammation in the rim in the right hypochondrium, anterior to the transverse colon, in contact with the anterior abdominal wall. figure 2A

Diagnosis of torsion of the appendices epiplocae was established and he was treated conservatively. His symptoms totally disappeared on conservative management. Repeated CT scan 6 weeks later showed complete resolution of the lesion. Figure 2B

**Figure 1**

Figure 1: Excised necrotic appendices epiploicae



**Figure 2**

Figure 2A: CT Scan Showing Acute Epiploicae appendagitis



**Figure 3**

Figure 2B: Follow-up CT Scan Abdomen after six weeks showing resolution of the Appendagitis



## DISCUSSION

Epiploic appendages are small pedunculated fatty structures covered by peritoneum distributed along two rows at the surface of the colon (1). They are more numerous at the level of the sigmoid colon and caecum. Primary epiploic appendagitis (PEA) is an uncommon cause of abdominal pain that occurs either from appendageal torsion or spontaneous thrombosis of an appendageal draining vein (2).

The sigmoid colon is the most frequent site of this disorder (41%0 and acute appendicitis is the most preoperative diagnosis (3). Depending on its location, epiploic appendagitis may mimic nearly any acute abdominal conditions. Infarcted appendage of the right colon may mimic cholecystitis or appendicitis (4).

Diagnosis of the condition is rarely made preoperatively owing to lack of specific symptoms (5). However, due to increase use of imaging tools in patients with acute abdominal symptoms, epiploic appendagitis is much more frequently diagnosed than before (6).

High index of suspicious for PEA and early radiological examination are required in patient with very localized abdominal pain and tenderness with no associated symptoms or laboratory abnormalities (7). Infarcted appendage epiploic appear on the ultrasonic examination as tender, non-compressible, ovoid and hyperechoic mass that was surrounded by a thin hyperechoic rim (8).

Recently, it has been reported that typical computed tomography (CT) findings of primary epiploic appendagitis provide a definitive diagnosis in most of the cases (9). CT proved to be the imaging modality of choice in all patients by showing periodic fatty mass with an increased attenuation as compared to normal fat surrounded by a high attenuation rim and focal stranding of the fat (10).

MRI findings include an oval-shaped and fat-intensity mass with a central dot on T1-T2 weighted images, which possessed an enhancing rim on post gadolinium T1-weighted fat saturated images (11).

Laparoscopic exploration of the peritoneal cavity will establish the correct diagnosis and provide the treatment during the same procedure (12). It provides a good alternative to imaging techniques if the condition is suspected pre-operatively.

As this disorder recently has been demonstrated to be predominantly self-limited. Laparotomy no longer is considered necessary and the conservative treatment has been shown to be safe (13). However, if the diagnosis is made by open or laparoscopic exploration, the necrotic appendage should be removed by ligation of its vascular pedicle and its peritonization with seromuscular sutures (14).

### SUMMARY

Torsion of the appendages epiploicae is a rare cause of acute abdominal pain. Height index of suspicion is needed to direct investigation especially in non-clear cut diagnosis. In such cases with acute abdominal symptoms, use of diagnostic than imaging epiploic appendages is much more frequently diagnosed than before, and when diagnosed preoperatively, conservative treatment is safe as the condition is self-limiting, close follow-up with CT imaging is required.

### CORRESPONDENCE TO

Dr ABBAS AR MOHAMED Consultant general surgeon  
Head of general surgery unit KFMC, RIYADH, K.S.A  
Email abbas\_ar@hotmail.com

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**Author Information**

**Abbas Ar Mohamed, MBBS, FRCSI**  
Department of surgical specialty, KFMC

**Muhammad Abukhater, MBBS, FRCSI**  
Department of surgical specialty, KFMC