

## Case Report

# Torsion of caecal appendices epiploicae: mimicking acute appendicitis

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## ABSTRACT

Acute appendicitis is a common cause for pain in the right iliac fossa, which requires urgent surgical intervention. However, at the time of surgery, if the appendix is normal, the surgeon has to search for other causes of acute abdominal pain including rare etiologies, such as torsion of appendices epiploicae and subsequently its gangrene. We report the case of a 45 years old female who presented with right lower abdominal pain, rebound tenderness and guarding in right iliac fosse, with regular menstrual cycles and no urinary complaints. Investigation revealed leucocytosis and ultra-sonography abdomen was suggestive of an inflamed appendix in the right iliac fossa with free fluid. Intra-operatively, we found a normal appendix with gangrene of the appendices epiploicae which had undergone torsion. She underwent excision off appendices epiploicae with appendectomy with uneventful post-operative period. Histopathology of the appendices was suggestive of congestion. Preoperative diagnosis of this condition is rarely made.

**Keywords:** Appendicitis, Appendices epiploicae, Caecum, Acute abdomen, Diagnostic laparoscopy

## INTRODUCTION

Acute appendicitis is the most common cause of right iliac fossa pain requiring surgical intervention. Epiploicae appendicitis is a rare inflammatory condition, which can lead to lead to torsion of epiploicae. Preoperative diagnosis of torsion of appendix epiploicae is extremely difficult and needs a very high index of suspicion.<sup>1</sup>

## CASE REPORT

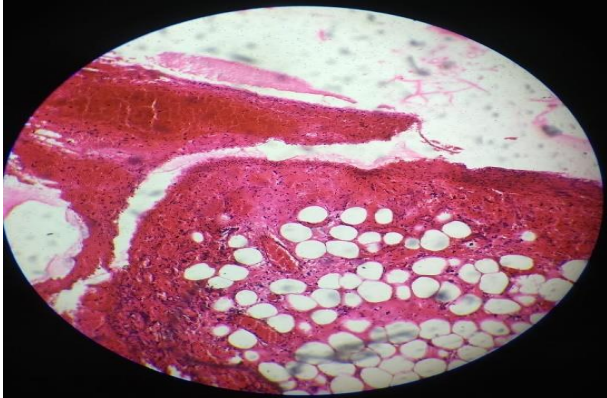
A 45 years old female presented to the emergency department with pain in the right lower abdomen for 2 days, accompanied with nausea and anorexia. She had no urinary complaints and regular menstrual history. She was afebrile with tachycardia. General physical examination was unremarkable. On abdominal examination, she had guarding and rebound tenderness in right iliac fossa. Haematological investigations were

normal, except for leucocytosis with neutrophilia. Abdominal and pelvic ultrasonography showed features of inflamed appendix with minimal free fluid in right iliac fossa.



**Figure 1:** Intra-operative picture showing normal appendix with gangrenous appendices epiploicae.

With a diagnosis of acute appendicitis, she was taken up for appendicectomy with Rutherford Morrison's incision. Intra-operatively, normal-looking pelvic vermiform appendix was identified and the distal ileum and mesentery were also normal. We found torsion of the appendices epiploicae of the caecum with gangrene. She underwent excision of the gangrenous appendices epiploicae with appendicectomy. Post-operative period was uneventful. She was discharged on post-operative day 3. Histopathological examination of the appendices revealed congestion and gangrene.



**Figure 2: Appendices epiploicae showing hemorrhage and gangrenous changes.**

## DISCUSSION

Appendices epiploicae are pedunculated structures lining the colon and are usually arranged in two axial rows along the tinea libera and omentalis, progressively increasing in number from the caecum to the distal sigmoid colon. Thus, not surprisingly, most cases of epiploic appendicitis are seen on the left side.<sup>2</sup> They are supplied by one or two arterioles from the vasa recta of the colon, and are drained by a single venule.<sup>3</sup> A normal adult has about 50-100 appendices epiploicae. The exact role of epiploicae appendices is not known and are presumed to that offered by the greater omentum and hence, may have a role in colonic absorption. They also act as cushion, protecting colonic blood supply during peristalsis.<sup>4</sup> Primary epiploic appendicitis is a rare condition. Golash et al, in a series of 1,320 cases of acute abdomen, found only eight cases due to acute epiploic appendagitis.<sup>5</sup> Epiploic appendicitis usually occurs due to spontaneous venous thrombosis or torsion followed by haemorrhagic infarction, fatty necrosis, inflammatory reaction and subsequent peritoneal irritation. The disease commonly occurs in the adult population. The commonest site of epiploic appendicitis is in the sigmoid colon followed by the caecum.<sup>5</sup> If it involves the caecum, it mimics acute appendicitis, enteritis, ovarian torsion, salpin-go-oophoritis, typhlitis and perityphillitis.<sup>6</sup> Literature review showed only few cases of caecal epiploic appendicitis in the paediatric population.<sup>7,8</sup> Epiploic appendicitis is seldom diagnosed preoperatively due to the lack of

pathognomonic clinical features. Clinical features are very nonspecific, includes pain in the lower part of the abdomen and the site of pain depends on the position of the appendage involved. There can be signs of peritoneal irritation. Singh et al showed that the computed tomography shows 1.5-3.5 cm diameter fat-density lesion with surrounding inflammatory changes abutting the anterior wall of the colon.<sup>9</sup> Magnetic resonance findings include an ovoid fat intensity with a central dot on T1 and T2 weighted images, which possess an enhancing rim with gadolinium.<sup>10</sup> Conservative management is given, which includes antibiotics and analgesics, for 1 week. If the diagnosis is made on table, the best strategy is to remove the affected appendage and do seromuscular inversion of the affected portion of gut.<sup>11</sup> At the present time, a laparoscopic exploration of peritoneal cavity will also establish the diagnosis.<sup>12</sup>

## CONCLUSION

Torsion of an appendices epiploicae is a rare entity, and is seldom diagnosed preoperatively. Diagnostic laparoscopy is a good treatment modality in such patients with abdominal pain but with an elusive diagnosis. This must be considered as a differential diagnosis for any patient presenting with acute abdomen in the right iliac fossa.

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