

# Strangulated Appendix Epiploica: A Diagnostic Dilemma

P Ambe, R Hanisch, D Fukindoki, M Folgiata

## Citation

P Ambe, R Hanisch, D Fukindoki, M Folgiata. *Strangulated Appendix Epiploica: A Diagnostic Dilemma*. The Internet Journal of Surgery. 2007 Volume 17 Number 1.

## Abstract

The diagnosis of a strangulated and infarcted epiploic appendage could be challenging. Patients usually present with the clinical picture of an acute abdomen. Mostly, the pain is located in the LLQ. The clinical findings do not always correlate with laboratory tests and findings on ultrasound and CT, so that the clinician is left in a dilemma. An early exploratory laparoscopy is usually diagnostic and therapeutic.

## INTRODUCTION

An appendix epiploica is a fat-filled, serosa-covered mass located along the free borders of the colon projecting into the abdominal cavity. These appendages constitute one of the macroscopic features characteristic of the large bowel. They are typically supplied by independent branches of the main vessels supplying the colon. Located at the free borders of the colon, these structures could be displaced against their points of fixation on the colonic wall. A rotation of such an appendage around its point of fixation on the colonic wall cuts off its blood supply leading to ischemia and infarction.

## CASE REPORT

We report the cases of 3 patients (2 males and 1 female) admitted to the surgical department because of severe abdominal pain (8/10, 9/10 and 8/10, respectively). In all 3 cases the pain was insidious in onset and was located to the lower left abdomen (LLQ). All 3 patients were relatively young (43, 39 and 26 years old, respectively). On physical examination, there was guarding and rebound tenderness on palpation. The remaining physical examination was unremarkable in all patients. Abdominal ultrasound showed a hypo-echoic LLQ mass<sub>1</sub> in the female patient, but was unremarkable in both male patients. Laboratory tests on all patients were within normal limits. Both male patients underwent a CT scan<sub>2</sub> of the abdomen which was unremarkable. Because of the possibility of pregnancy, a CT scan was not performed on the female patient. A colonoscopy performed on the male patients showed no pathologies. The female patient underwent a gynecologic consultation which was not conclusive.

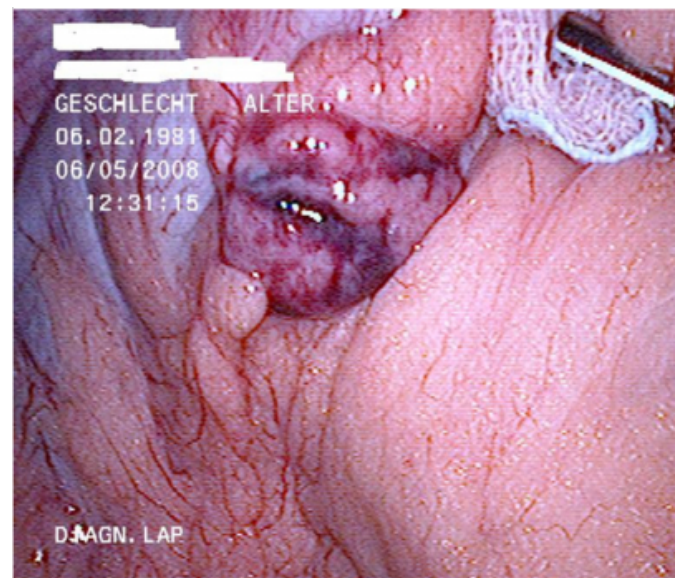
The patients were initially treated medically. This however

failed to relieve their pain so that we decided to perform an exploratory laparoscopy<sub>3</sub>. In all 3 patients a strangulated and incarcerated appendix epiploica was evident on laparoscopy. The incarcerated appendage was resected. Pathological examination of the specimens confirmed necrosis of the appendages with surrounding hemorrhage.

All 3 patients were discharged on the following day without residual pain.

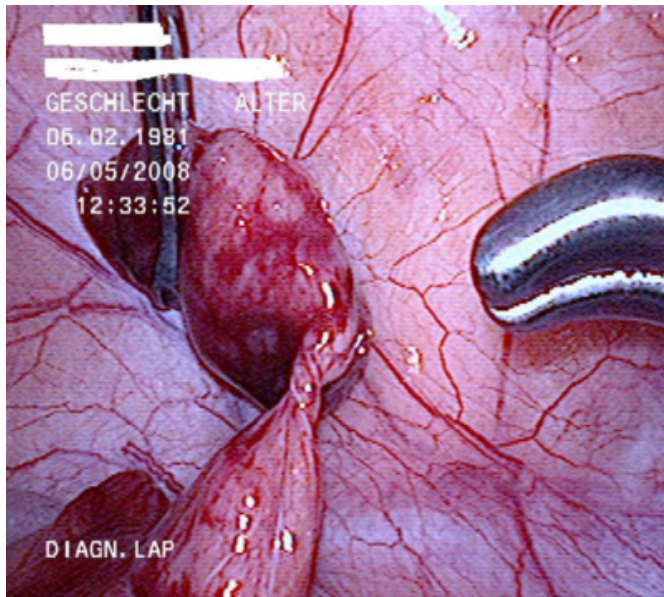
## Figure 1

Figure 1: Infarcted epiploic appendage



**Figure 2**

Figure 2: Torsion and strangulation of the epiploic appendage cuts off tissue blood supply leading to ischemia, infarction and necrosis



**COMMENTS**

A large number of patients with an acute abdomen present with pain localized to the LLQ. The differential diagnosis of LLQ pain is broad and includes common conditions like diverticulitis, colitis, gastroenteritis, nephrolithiasis, and neoplasm as well as a large number of gynecologic

conditions including extra-uterine pregnancy and tubal disorders. Disorders of the epiploic appendages are quite rare<sup>4</sup>.

The medical challenge in the above mentioned cases was that of the diagnosis. With all diagnostic modalities within normal limits, the clinician is left in a dilemma. Since the condition is usually self-limiting, medical treatment with optimal pain management is the treatment in most cases; thus, the underlying pathology is misdiagnosed<sup>5</sup>. The diagnosis is usually made on exploratory laparoscopy. The strangulated appendage is resected.

**RECOMMENDATIONS**

Disorders of the epiploic appendages could be very challenging to diagnose and treat. An early laparoscopy usually leads to definite diagnosis and therapy.

**References**

1. Lee YC, Wang HP, Huang SP et al. Gray scale and color sonographic diagnosis of epiploic appendagitis. *J Clin Ultrasound* 2001;29:197
2. Singh AK, Gervais DA, Hahn PF et al. CT appearance of acute appendicitis. *AJR Am J Roentgenol* 2004;183:1303
3. Unal E, Yankol T et al. Lap. resection of torsioned appendix epiploica. *Surg Laparosc Endosc Percutan Tech* 2005;15:371-3
4. McMahon AJ, Hansell DT. Primary appendicitis epiploica mimicking acute appendicitis. *Postgrad Med J* 1988;64:903-5
5. Rao PM, Rhea JT et al. Misdiagnosis of primary epiploic appendicitis. *Am J Surg* 1998;176:81-5

**Author Information**

**Peter Ambe**

Department of General and Abdominal Surgery, DRK Krankenhaus Altenkirchen

**Robert Hanisch**

Department of General and Abdominal Surgery, DRK Krankenhaus Altenkirchen

**Danu Fukindoki**

Department of General and Abdominal Surgery, DRK Krankenhaus Altenkirchen

**Marc Folgiata**

Department of General and Abdominal Surgery, DRK Krankenhaus Altenkirchen