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Acute Appendicitis as a Complication of Severeacute Pancreatitis: Case Report

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Introduction and Importance: Pancreatitis is a common condition in the general population. Appendicitis is the most common disease and is the first procedure performed in general and digestive surgery. Complication of acute pancreatitis by acute appendicitis is rare. We present a case of acute appendicitis complicating acute pancreatitis.
Case Presentation: A 66-year-old man admitted to the visceral surgical emergency department for epigastralgia and right iliac fossa pain dating back 24 hours. On physical examination, the patient was HD and respiratory stable, apyretic at 36.5°. Epigastric and FID sensitivity, the rest of the examination was unremarkable. CT scan showed a Balthazar stage E acute pancreatitis with acuteappendicitis. After hospitalisation and initiation of antibiotic therapy, the patientunderwent appendectomy with sampling of the peritoneal effusion.

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Clinical Discussion: Complications of the large bowel related to pancreatitis do not exceed 7%, including infarction, infection, and transverse colon and splenic flexure fistula and isolated appendix involvement as no complications of pancreatitis have been reported in the literature.
Conclusion: The dangers of misdiagnosis and persistent symptomatology with conservative treatment in patients with appendicitis and pancreatitis are greaterthan those inherent in a correctly performed diagnostic laparotomy.

Keywords: Appendicitis; pancreatitis; pain; surgery.

1. INTRODUCTION

Pancreatitis is a common condition in the general population. It is a medical andsurgical emergency.

Appendicitis is the most common disease and is the first procedure performed ingeneral and digestive surgery. Complication of acute pancreatitis by acute appendicitis is rare. We present a case of acute appendicitis complicating acute pancreatitis. The aim of this study is to highlight the diagnostic difficulties and to discuss the therapeutic choices in the association of pancreatitis and acute appendicitis.

2. CASE PRESENTATION

A 66-year-old man, chronic smoker at 40 P/A and chronic alcoholic (2 liters/week) admitted to the visceral surgical emergency department for epigastralgia and right iliac fossa pain dating back 24 hours, associated with food vomiting without transit disorders or externalized digestive hemorrhages, all evolving in a context of apyrexia and alteration of the general state. On physical examination, the patient was HD and respiratory stable, apyretic at 36.5°. Epigastric and right iliac fossa tenderness, the rest of the examination was unremarkable. Laboratory results were as follows: WBC: 19760 per litre (80% neutrophils), haemoglobin: 15.3g /dl platelet count: 375000/ L, Prothrombin rate: 88%, C-reactive protein: 95.6 g/dL, BUN: 0.45 g/l, creatinine: 7.6 mg/l, aspartate aminotransferase: 24U/L, alanine aminotransferase: 14 U / L, totalbilirubin: 5,8mg / dL, calcium: 9 mg / dL, , lipase: 472U / L, Gamma-GT: 39UI/L Alkaline phosphatase: 100 UI/L Natremia: 137 meq/L kaleimia: 5 meq/l Abdominal ultrasound was ordered: No visualization of normal or pathological appendix complete with CT scan which revealed: Swollen pancreas measuring 41 mm in its cranial portion, with loss of its physiological lobulations at this level, associated with necrotic flows in the posterior cavity of the epiploons, caudally, in the bilateral renal anterior spaces.

- Bilateral peripancreatic and perirenal fat infiltration with thickening of the left renal fascia.
- Normal volume alithiasic gallbladder coiled latero-caecal appendagemeasuring 11mm in thickness at most. peritoneal effusion slide.

In Total: CT appearance of Balthazar stage E acute pancreatitis with acute appendicitis (Fig. 1(a-b)) (Fig. 2).

After hospitalisation and initiation of antibiotic therapy, the patient underwent appendectomy with sampling of the peritoneal effusion (Fig. 3).

Pathological examination showed inflammation of the appendix and analysis of the specimen showed the presence of lipase in the effusion. The postoperative course was simple, with the patient being declared discharged at 10 days postoperatively after cooling of his pancreatitis.

3. DISCUSSION

The diagnosis of pancreatitis is based not only on a typical history and physical examination but also on a lipasemia and amylasemia greater than 3 times normal [1].

serum amylase is also elevated in other cases of abdominal pain, such as appendicitis [1], perforated duodenal ulcer, or small bowel ischaemia [2] Serum amylase is usually within the first 48 hours after the onset of pancreatitis [3].

However, radiological investigations may be requested, including abdominal CT scan to assess the severity of pancreatitis as it is more specific than ultrasound in appendicitis [4,5].

Complications of the large bowel related to pancreatitis do not exceed 7%, including infarction, infection, and transverse colon and splenic flexure fistula and isolated appendix involvement as no complications of pancreatitis have been reported in the literature [6].

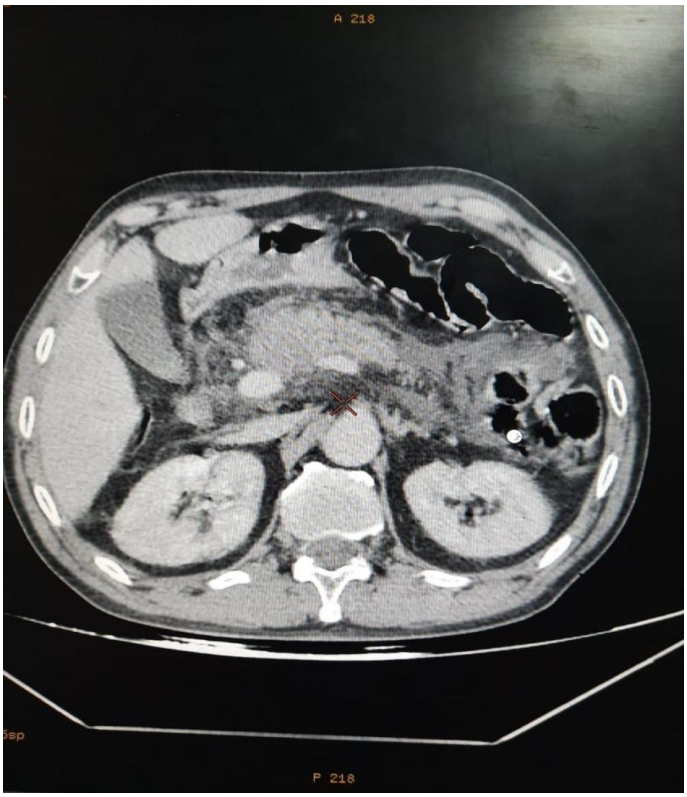

Fig. 1a. Appearance of caudal necrosis flows

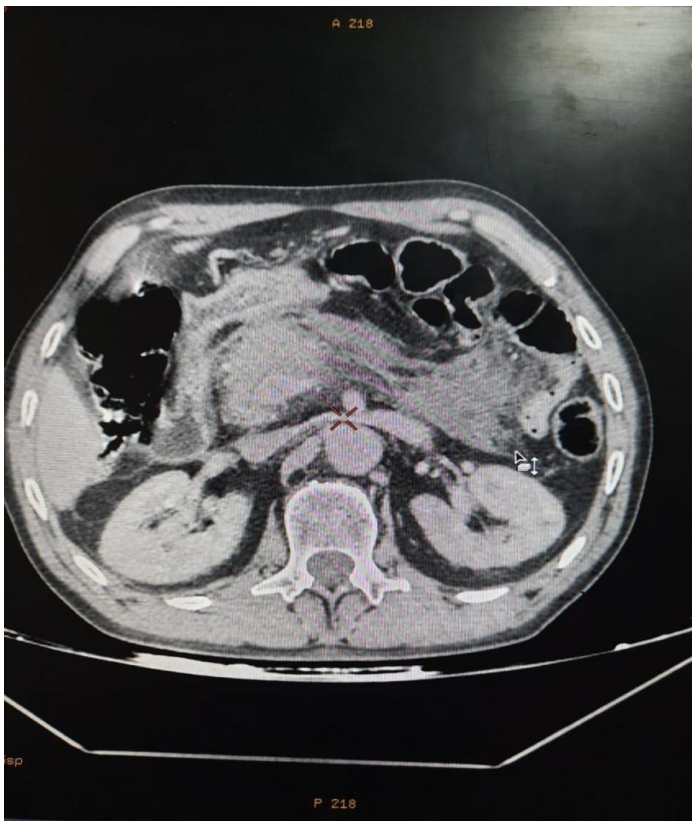

Fig. 1b. Appearance of necrotic flows

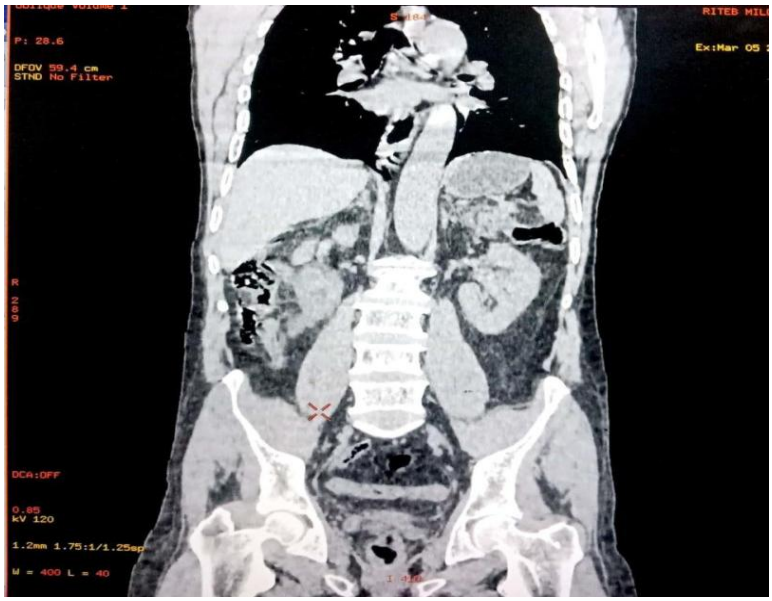

Fig. 2. Swollen appendix image

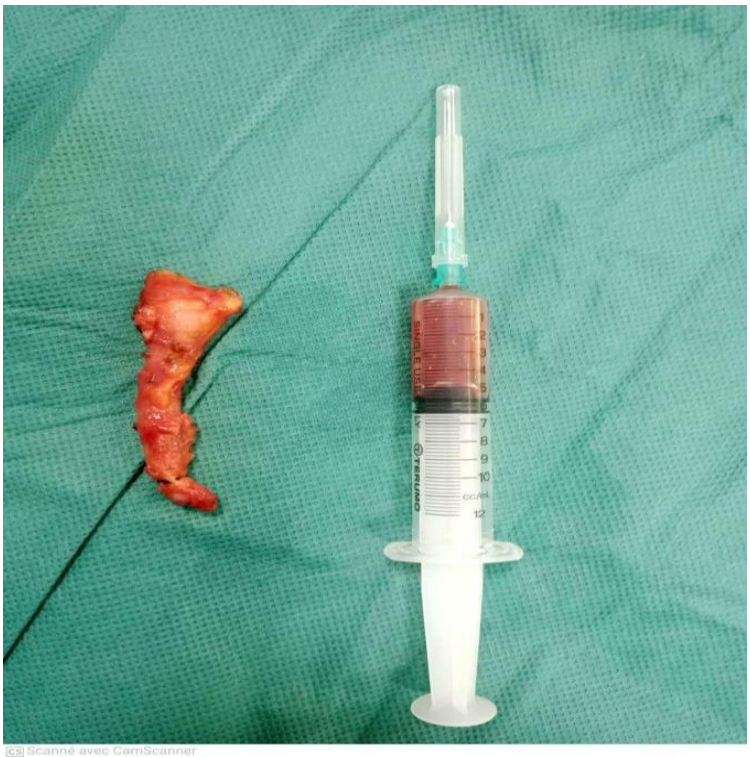

Fig. 3. Image of the appendix intraoperatively and of the effusion

In rare cases, there is a likelihood that appendicitis is a rare complication of mild pancreatitis [7].

Endoscopic treatment of retrograde appendicitis (ERAT) may be a new alternative to surgery for treating patients with severe disease orcomorbidities such as acute pancreatitis (AP) associated with appendicitis [8] ERAT is a safe, minimally invasive endoscopic procedure with advantages oversurgery for patients with appendicitis and severe pancreatitis.

- When the diagnosis does not provide sufficiently firm criteria on which to basethe choice of treatment, surgery is indicated as

the best approach in the patientwith acute abdomen [9] as in our series Our patient underwent appendectomyand received antibiotic treatment in addition to supportive care for acutepancreatitis.

4. CONCLUSION

The dangers of misdiagnosis and persistent symptomatology with conservative treatment in patients with appendicitis and pancreatitis are greater than thoseinherent in a correctly performed diagnostic laparotomy.

In our study an appendectomy by laparotomy was performed with good patientoutcome.

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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