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Case Report

Pylephlebitis secondary to inflammatory colitis: A case report ☆

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ABSTRACT

Pylephlebitis is a thrombotic occlusion of the portal vein or its branches secondary to infection in regions that drain to the portal venous system. Clinical presentation is often atypical, and patients may initially present with non-specific abdominal symptoms. We report a case of pylephlebitis secondary to inflammatory colitis depicted by CT scan in a 35-year-old female admitted for acute abdominal pain associated with vomiting and fever.

Introduction

Pylephlebitis is an infectious disease of the portal vein or one of its branches, caused by bacteria ascending from an intra-abdominal or pelvic infection site and leading to thrombosis [1].

Its incidence is not well known but is estimated to be lower than that of portal thrombosis, estimated at 2.7/100,000 people [2].

Most often situation leading to pylephlebitis are diverticulitis, appendicitis, necrotizing pancreatitis, cholangitis but also inflammatory bowel diseases [3–5]. Pylephlebitis secondary to colitis is very rare and in 10 years Bargan has reported only one case out of 1333 cases of ulcerated colitis [6].

Imaging plays a key role in the diagnosis and abdominal CT remains the reference technique [7].

We report the case of a young woman with pylephlebitis secondary to inflammatory colitis.

Case report

A 35-year-old female patient with a history of right cystectomy 6 years ago admitted for abdominal pain evolving for 7 days

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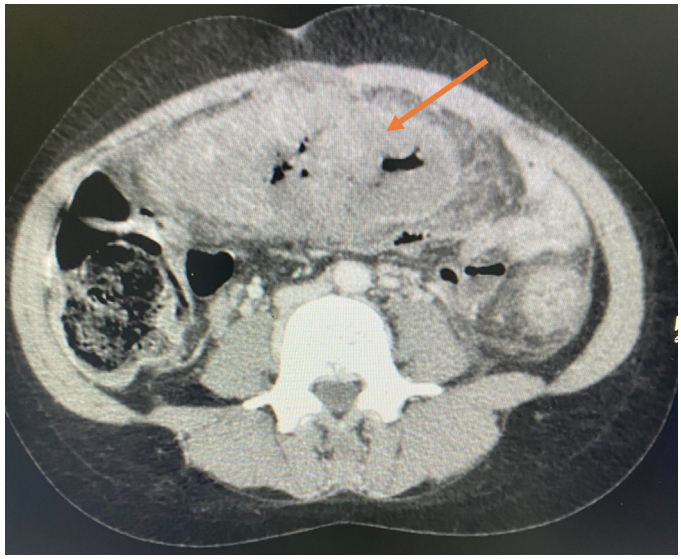

Fig. 1 – Axial section of an injected abdominal CT scan showing regular non-stenotic parietal thickening of the transverse colon (orange arrow).

associated with fever and vomiting. Clinical examination revealed a good general condition, fever with 37°9 C of temperature, normal blood pressure (120/70 mm Hg), and tachycardia (102 beats/min). She had a soft and no distended abdomen with diffuse abdominal pain on palpation. The remainder of her physical exam was normal.

The biological lab showed hyperleukocytosis of 15,000/mm^3 (4000-10,000/mm^3) with a predominance of neutrophils and an anemia of 7.1 g/l (12-16 g/l).

An enhanced abdominopelvic CT scan showed regular non-stenotic parietal thickening of the transverse and descending colon (Figs. 1 and 2) consisting with an inflammatory appearance. Extensive thrombosis of the portal trunk and its branches (Fig. 3) associated with peritoneal effusion in the pelvis and infiltration of the mesentery were also noted. The diagnosis of pylephlebitis due to inflammatory colitis was made.

Medical management with anticoagulation and antibiotic treatment was initiated. The clinical course was uneventful, and the patient was discharged after 1 week.

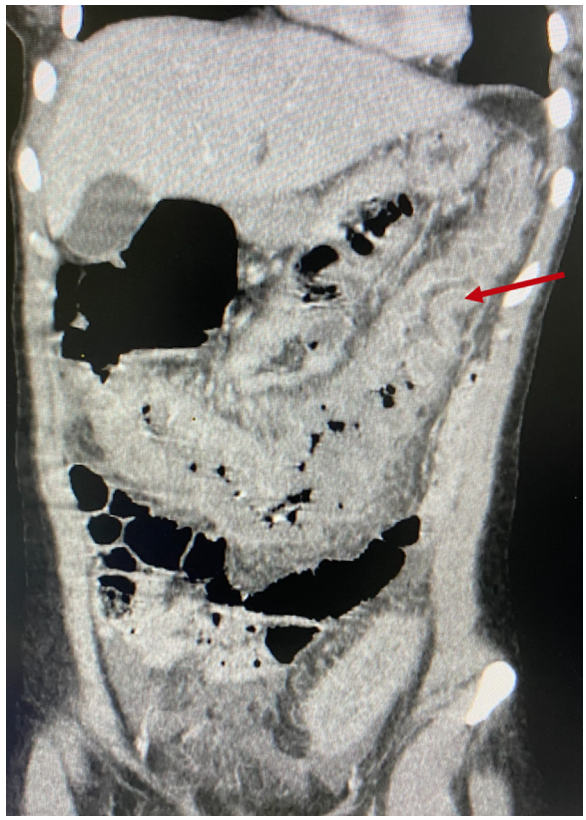

Fig. 2 – Coronal reconstruction of an injected abdominal CT scan showing regular non-stenotic parietal thickening of the transverse.

Discussion

Pylephlebitis, also known as *ascending septic thrombophlebitis*, is a rare complication that occurs during abdominopelvic infections [3].

It is a rare clinical condition, and the incidence is not well known, only cases and case series have been reported in the literature [1,8].

The occurrence of pylephlebitis during colitis is rare; according to a meta-analysis by Choudhry only 2 cases/95 were related to colonic inflammation [4].

The pathophysiological mechanism lies in the spread of germs through the splenomesenteric venous system. In ulcerative colitis, the process is probably initiated in the submucosal branches of the mesenteric vein located in the infected intestinal wall [5].

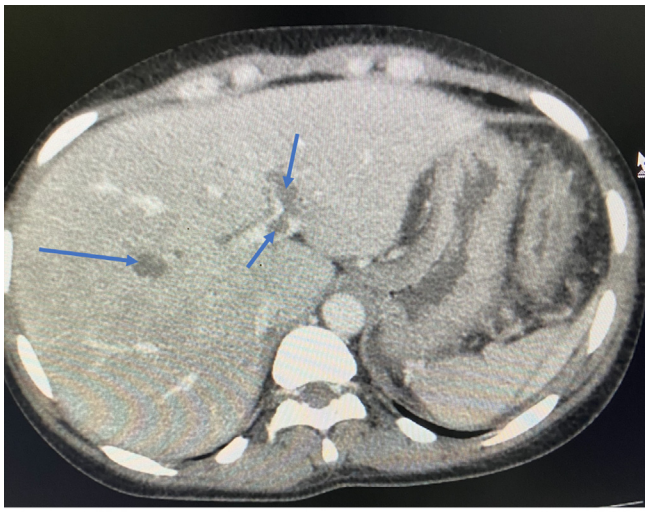

Fig. 3 – Axial section of an injected abdominal CT scan showing septic thrombosis of the right and left portal branches (blue arrows).

Pylephlebitis usually presents with relatively non-specific symptoms such as fatigue, fever, abdominal pain, nausea and vomiting, diarrhea, and anorexia. Our patient also presented abdominal pain in a febrile setting associated with vomiting.

With this atypical clinical presentation, imaging remains necessary. Abdominal CT is the modality of choice. It is helpful for the positive diagnosis, research of complications as well as underlying cause of pylephlebitis [9].

Complications of pylephlebitis include thrombus propagation into a mesenteric vein, hepatic abscess, hepatic and splenic infarctions, and chronic thrombosis [10].

Combination of anticoagulants and antibiotics is the mainstay of therapy. However, anticoagulation remains controversial since successful resolution of pylephlebitis has been reported with or without anticoagulation [4].

Conclusion

Pylephlebitis is a rare and severe complication of deep abdominopelvic suppurations with multiple etiologies. Its occurrence during inflammatory colitis is an unusual situation.

Contrast-enhanced CT remains the best imaging modality for the diagnosis and research of complications and etiology.

Patient consent

The patient' consent was obtained.

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