Pylephlebitis Presumed To Be Secondary To A Perforated Diverticulum

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INTRODUCTION

- Pylephlebitis is an acute thrombosis of the portal system in the setting of intra-abdominal infection
- Diagnosis can be challenging since symptoms are nonspecific

CASE DESCRIPTION

- **HPI:** 63-year-old African male with colonic diverticulosis presented with fevers & chills for 2 weeks
- **Pertinent history:** immigrated from Benin in 2014 Denied drug use, recent travel, or sick contacts.
- **Physical exam:** febrile (103ºF), heart rate 107. Soft, nontender, nondistended abdomen
- **Laboratory studies:** white blood cell (WBC) count of 15.9 K/uL. AST 42, ALT 73, ALP 117, bilirubin 1.3

PATIENT COURSE

- Underwent aspiration of abscess and initiation of IV piperacillin-tazobactam and heparin
- Fluid cultures grew *Fusobacterium nucleatum* but blood cultures had no growth
- Colonoscopy: diverticulosis without diverticulitis
- Discharged on a 4-week course of ceftriaxone & metronidazole, along with 12 weeks of apixaban. Repeat ultrasound showed improvement of abscesses and resolution of portal vein thrombus

IMAGING

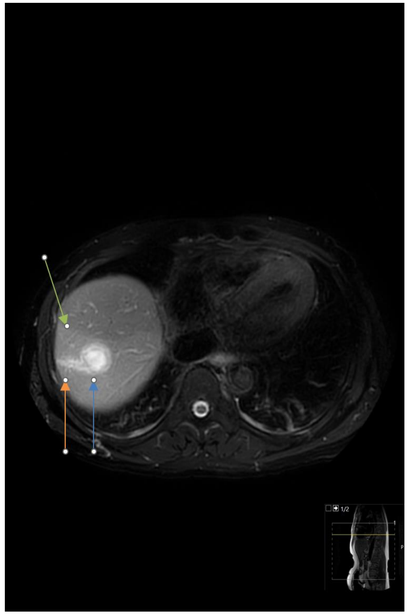

Figure 1: 2.8cm rim-enhancing abscess with rim-sign / double target sign (blue arrow) seen in axial view of segment 8

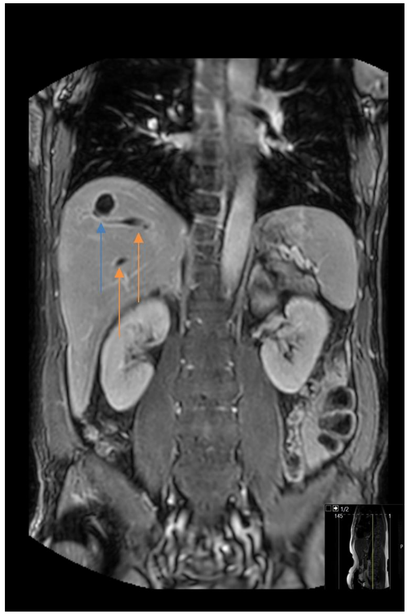

Figure 2: Associated T2 hyperintense, T1 hypointense linear filling defect consistent with thrombus along course of right hepatic vein branches (orange arrow) adjacent to abscess

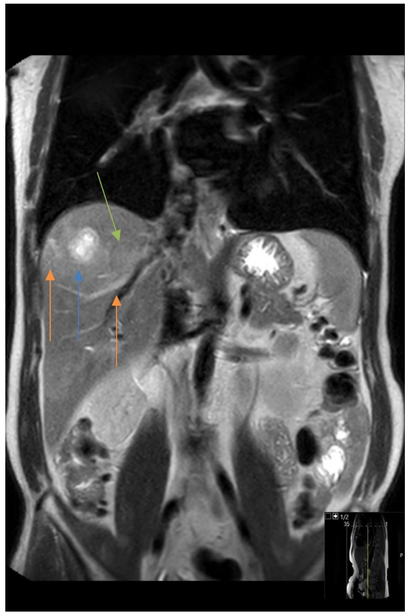

Figure 3: Associated perfusion changes/wedge-shaped edema and T2 hyperintensity in liver parenchyma (green arrow)

DISCUSSION

- **Causes:** most commonly diverticulitis. In this case, we believe that prior diverticulitis with possible micro-perforation caused seeding of the liver and abscess development, which then led to thrombus formation
- **Microbiology:** gram-negative pathogens, especially *Bacteroides,* are frequently found
- **Treatment:** broad-spectrum antibiotics for 4-6 weeks
- **Anticoagulation (AC):** appears to prevent bowel ischemia and infarction secondary to thrombus extension. Consider AC on a case-by-case basis. If initiated, it is often continued for 3 months
- **Follow-up:** repeat computer tomography (CT) or ultrasound of the portal vein about 5 – 7 days after starting antibiotics

CONCLUSION

- Because of its high risk of morbidity and mortality, pylephlebitis warrants rapid diagnosis and initiation of antibiotics and possible anticoagulation