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Pylephlebitis: An Uncommon Complication of Intra-Abdominal Infection

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We present a case of pylephlebitis, which is an infective suppurative thrombosis of the portal vein. Pylephlebitis is an uncommon complication of intra-abdominal infections and carries with it significant morbidity and mortality. [West J Emerg Med. 2011;12(4):575–576.]

A 50-year-old Caucasian male with a history of asthma and a family history of venous thrombosis presented to the emergency department with the complaint of intermittent chest pain for 1 week, associated with progressive shortness of breath, fever, chills, nausea, and fatigue. The patient's body temperature was 97.8°F; heart rate, 103/minute; respiratory rate, 32/minute; blood pressure, 111/65 mmHg; and oxygen saturation, 98% on room air. Physical examination was

significant for diffuse abdominal tenderness, worse in the right upper quadrant. Laboratory examination revealed a white blood cell count of 24.2 K/mm³; aspartate aminotransferase, 43 IU/L; alanine aminotransferase, 64 IU/L; alkaline phosphatase, 299 IU/L; D-dimer, 5.01 mg/L; and Erythrocyte sedimentation rate, 119 MM/HR. Computed tomography (CT) results of the chest were negative for pulmonary embolus, and CT of the abdomen was performed (Figures 1 and 2). Imaging of the pelvis

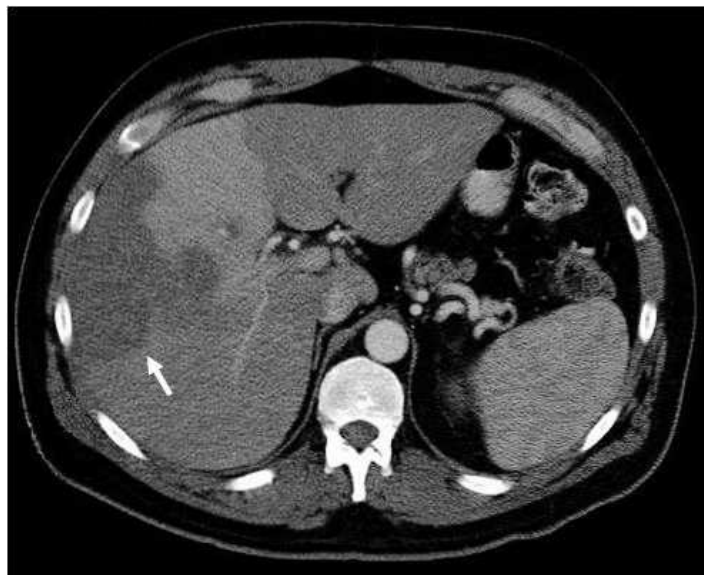


Figure 1. Abdominal computed tomography showing low attenuation masses in the right lobe of the liver with differential perfusion.

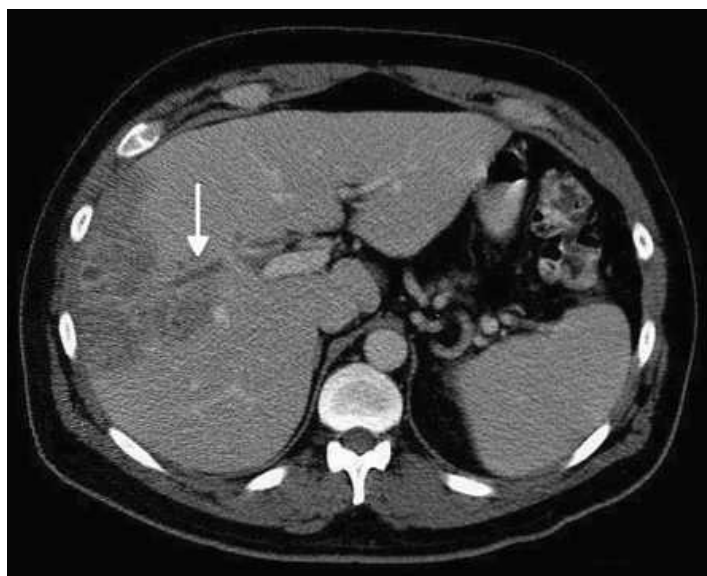


Figure 2. Thrombus in the right portal vein.

revealed sigmoid diverticulosis. Biopsy of the liver mass showed reactive and inflammatory changes consistent with abscess formation. Biopsy culture results, as well as blood culture results, were negative. Hypercoagulable workup revealed the presence of antiphospholipid antibodies. The patient showed clinical and radiologic improvement with appropriate antibiotic and anticoagulant therapy.

DIAGNOSIS

Pylephlebitis

Defined as infective suppurative thrombosis of the portal vein, pylephlebitis is an uncommon complication of intra-abdominal infections and carries with it significant morbidity and mortality. It occurs most commonly in association with diverticulitis and appendicitis, and in most cases more than 1 type of bacterial organism is found. The most common isolated microbes include *Bacteroides*, *Enterococcus*, *Escherichia coli*, *Klebsiella*, *Staphylococcus*, and *Streptococcus*.¹ Treatment includes empiric therapy with broad-spectrum antibiotics, until cultures are available, with total treatment duration of 4 to 6 weeks.²

An associated hypercoagulable condition, malignancy, or acquired immune deficiency syndrome is not an uncommon finding.² Anticoagulation therapy may reduce the incidence of septic embolization to the liver from infected portal thrombi

and may prevent liver abscesses. The optimum duration of anticoagulation therapy is unclear.

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