

Acute cholecystitis complicated by pylephlebitis

Pylephlebitis is defined as an infective suppurative thrombosis of the portal vein. The disease is an uncommon complication of intra-abdominal infections that can cause significant morbidity and mortality. We report a case of a patient with pylephlebitis secondary to acute cholecystitis who was already receiving interferon therapy for chronic hepatitis C virus (HCV) infection. A 52-year-old man with a history of chronic HCV infection presented with abdominal pain and fatigue for 1 day. His chronic HCV infection had been followed-up for a year. Pegylated interferon α -2a and ribavirin therapy had been administered 2 weeks earlier for his infection. He also had cholelithiasis that had been confirmed 3 months earlier by abdominal ultrasonography. Because the abdominal ultrasonographic examination had been performed, no other pathological findings had been obtained. Physical examination gave the following results: blood pressure, 100/70 mmHg; heart rate, 100 beats/min; and body temperature, 39.5°C. His laboratory test results were Hb, 11.7 mg/dL; WBC, 18,800 cells/mm³; ALT, 250 U/L; AST, 280 U/L; ALP, 224 U/L; and GGT, 345 U/L. Magnetic resonance imaging (MRI) of the abdomen revealed portal vein thrombosis and cholecystitis (Figure 1). Color Doppler confirmed the presence of portal vein thrombus. However, there was no periportal collateral circulation because of portal vein thrombosis. The absence of periportal collateral circulation, initial time of abdominal pain, and the findings of previous abdominal ultrasonography performed 3 months earlier revealed that the patient had an acute portal vein thrombus.

The patient showed clinical improvement with appropriate antibiotic and anticoagulant therapy. Computed tomography (CT) was performed 1 month later and showed persistence of the portal vein thrombus. A decision was made to observe the patient and continue warfarin treatment.

Thrombophlebitis of the portal vein and its branches is referred to as pylephlebitis, and it is frequently associated with an intra-abdominal inflammatory process (1). The predisposing factors include portal hypertension, congestive heart failure, malignancies, hypercoagulable states, and intra-abdominal infections (2). The most common intra-abdominal etiologic factors are acute appendicitis, cholangitis, pancreatitis, and diverticulitis. Diagnosis based on history and physical examination is difficult because clinical symptoms are atypical and easily confused with common surgical complications. Up to 80% of patients have positive blood cultures, and *Escherichia coli*, *Bacteroides fragilis*, *Proteus mirabilis*, *Klebsiella pneumoniae*, and *Enterobacter spp* are the most common microorganisms isolated. Ultrasound, MRI, and CT have been used in the diagnosis of pylephlebitis. CT is the most reliable initial diagnostic choice. The principle treatment for pylephlebitis includes broad spectrum antibiotics, anticoagulants, and surgical treatment, if needed.

In summary, pylephlebitis is a rare complication of intra-abdominal infections, especially cholecystitis. Early

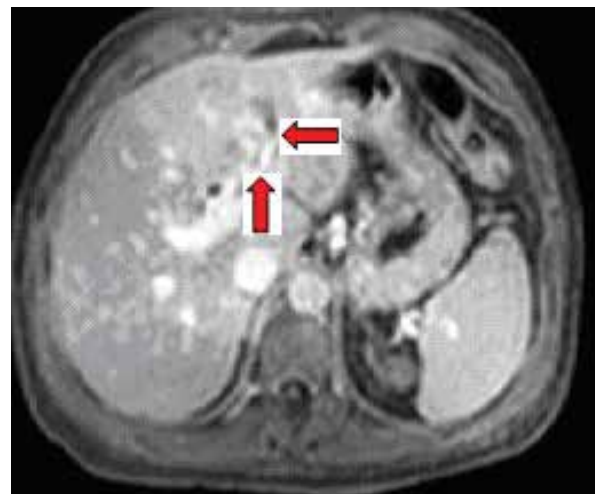


Figure 1. Magnetic resonance imaging of the abdomen showing venous thrombosis in the left portal vein

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diagnosis is very important because of the potential for significant morbidity and mortality. Therefore, it is essential to treat patients as soon as possible.

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