

中文題目：急性腸系膜靜脈血栓引起腸缺血

英文題目：Ischemic Bowel due to Acute Mesenteric Venous Thrombosis

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A 66-year-old man with liver cirrhosis and post splenectomy presented to the emergency department with abdominal pain and vomiting for one day. Physical examination revealed diffuse abdomen tenderness and decreased bowel sounds. Laboratory tests showed white blood count of 16420/mm<sup>3</sup> (normal range, 4000-11000), hemoglobin, 14.1 g/dl (normal range, 13.0–17.0), platelets, 232000/mm<sup>3</sup> (normal range, 130000–400000); prothrombin time, 14.9 seconds (normal range, 11.0–14.5); international normalized ration, 1.14 (normal range, 0.78–1.12), serum lactate level of 7.2 mg/dl (normal range, 4.5 -19.8) and c-reactive protein of 13.11 mg/dl (normal range, <0.5). Computed tomography (CT) revealed presence of partial thrombosis at main portal vein, splenic vein and superior mesenteric vein. Ascites formation and diffuse bowel wall edema, favor ischemic change due to mesenteric venous thrombosis (MVT) (**Figure 1**). The patient received intravenous fluid administration, bowel rest, prophylactic antibiotics, anticoagulation with low molecular weight heparin (Enoxaparin, 1 mg/kg subcutaneous injection twice daily). His abdominal pain and distension gradually decreased and he started oral food intake without discomfort. After 16 days in the hospital, he was discharged on oral anticoagulation with a full recovery. After 4 months abdominal CT revealed resolve of the partial thrombosis at main portal vein, splenic vein and superior mesenteric vein, with still wall calcification (**Figure 2**).

MVT often results from a combination of hypercoagulability, endothelial injury, and stasis (such as cirrhosis), or exacerbated by an event such as pancreatitis or surgery (most commonly splenectomy).<sup>1</sup> In this case, the combination of cirrhosis and splenectomy was the likely cause of MVT. Portal vein calcification is a rare radiologic finding in patients with portal hypertension.<sup>2</sup> The treatment of acute MVT for all patients include intravenous fluid administration, bowel rest, prophylactic antibiotics, and parenteral anticoagulation such as intravenous unfractionated heparin or low-molecular-weight heparin. Catheter-directed thrombolysis may be considered in

patients with severe acute MVT refractory to anticoagulation. Surgery is indicated in patients with hemodynamic instability, peritonitis, and bowel infarction.<sup>3</sup> In this case, the symptoms were improved immediately after starting anticoagulants. Clinicians should be aware of prompt diagnosis and subsequent accurate treatment for MVT.

### Figure legends

**Figure 1.** The coronal view of abdominal computed tomography scan reveal presence of partial thrombosis at main portal vein (white arrow) and small bowel thickening (red arrow) with ascites formation.



**Figure 2.** The coronal view of abdominal computed tomography scan reveal resolve of partial thrombosis at main portal vein (white arrow) after anticoagulation treatment.

