Combined Idiopathic Acute Mesenteric Venous Thrombosis with Acute Pulmonary Embolism: A Rare Condition with Common Presentation

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Acute mesenteric venous thrombosis (MVT) is a rare condition and occurs in an uncommon site of venous system. The correct diagnosis could be delayed leading to serious consequences.

We presented our interesting case of acute MVT with acute abdomen combined with acute pulmonary embolism (PE) and eventually ended up with small bowel resection with long term anticoagulant therapy. The etiology of MVT was extensively sort and discussed.

A 44-year-old non-cirrhotic, previously healthy Japanese woman presented with worsening of acute abdominal pain and vomiting 18 hours prior to another hospital arrival. The physical examination revealed stable vital signs, with diffuse abdominal tenderness without rebound tenderness or guarding. Because of diagnosis uncertainty, she underwent CT scan of whole abdomen with contrast enhancement. Acute superior MVT was detected without gangrenous of related bowel. Intravenous heparin was immediately loaded then followed by continuously dripping. Although the severity of abdominal pain was constant, she suddenly developed shortness of breath with oxygen desaturation. The patient was afterwards referred to our hospital for further investigation. As soon as arrival, she underwent CT pulmonary angiography and thrombus was demonstrated in subsegmental branches of left pulmonary artery. Regarding to her clinical with stable hemodynamic, the diagnosis of acute non massive pulmonary embolism was confirmed.

Despite achievement of therapeutic level of heparin therapy, sign of focal peritonitis developed. The patient was proceeded to exploratory operation and was successfully treated by resection of the infarcted bowel. The anticoagulant was postoperatively resumed as soon as hemostatic reassured. Extensive investigation was done to seek out the possibility course of index acute thrombosis. Specific laboratory evaluation for thrombophilia including antithrombin III, protein C, and protein S deficiency, Leiden factor V mutation, homocysteinemia, JACK 2 mutation or antiphospholipid antibodies were tested. Acquired risk factors included autoimmune disease, occult malignancy, medications/hormonal, and portal hypertension related venous thrombosis were also sorted. Finally, all investigations were negative. Therefore, idiopathic venous thrombosis of SMV was diagnosed. This patient was hospitalized for 29 days without other complications and discharged with life-long anticoagulation therapy.

Although SMV thrombosis is a rare condition, we should consider in differential diagnosis among whose abdominal symptom and sign are discrepancy. High clinical suspicion is needed to avoid delayed diagnosis. Etiology should be extensively sorted. Treatment with timely manner surgery in acute SMV thrombosis is useful in selected cases with evidence of focal peritonitis.

**Keywords:** Mesenteric venous thrombosis, Acute mesenteric venous thrombosis, Idiopathic mesenteric venous thrombosis