

IMAGE OF THE MONTH

상장간막동맥 증후군과 유사한 형태로 발현한 고립성 상장간막동맥 자연 박리

이옥현, 임철현, 김상우

가톨릭대학교 의과대학 내과학교실

Spontaneous Isolated Superior Mesenteric Artery Dissection Mimicking Superior Mesenteric Artery Syndrome

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Case: A 71-year-old woman visited our hospital with severe diffuse abdominal pain and vomiting. She had no significant medical history except for hypertension. Physical examination revealed mild abdominal distension without tenderness or rebound tenderness, and her vital signs were stable: body temperature, 37.1°C; blood pressure, 110/70 mmHg; and pulse rate, 60 beats/min. Laboratory test results, including complete blood cell count with differential, serum electrolytes, glucose, creatinine, bilirubin, amylase, and aminotransferase levels, were all within normal limits. Her chest and abdominal radiographs demonstrated no abnormalities. We presumed that the patient had acute abdomen of unknown etiology. For further evaluation, contrast-enhanced CT scan was performed and it revealed markedly distended stomach and duodenum, narrowing of proximal jejunum, and proximal superior mesenteric artery (SMA) dissection with 6×8 mm sized thrombus within the false lumen (Fig. 1). Even though there was no definite evidence of ischemia on CT scan, bowel ischemia was strongly suspected because of luminal narrowing of proximal jejunum.

Therefore, percutaneous angiography was performed. After confirming the presence of narrowed superior mesenteric artery on angiography, the stenotic segment was dilated and an 8×40 mm self expandable stent (Zilver; Cook Medical, Bloomington, IN, USA) was deployed, followed by expansion of the stent with a 6×20 mm balloon (Foxcross; Abbott Vascular, Abbott Park, IL, USA). Follow-up angiography performed immediately after stent placement confirmed that the stent had been well positioned (Fig. 2). Aspirin and clopidogrel were started right after the procedure. Upper gastrointestinal series performed 4 days later revealed resolved luminal narrowing of proximal jejunum (Fig. 3).

The patient was discharged 5 days after the procedure with no further abdominal complaints. However, bruise developed after taking clopidogrel for 1 week and thus, clopidogrel was stopped. Follow-up CT angiogram taken at 6 months showed no evidence of small bowel narrowing and well positioned intravascular stents in SMA with good lumen patency. At 14 months follow-up, she remains symptom free.

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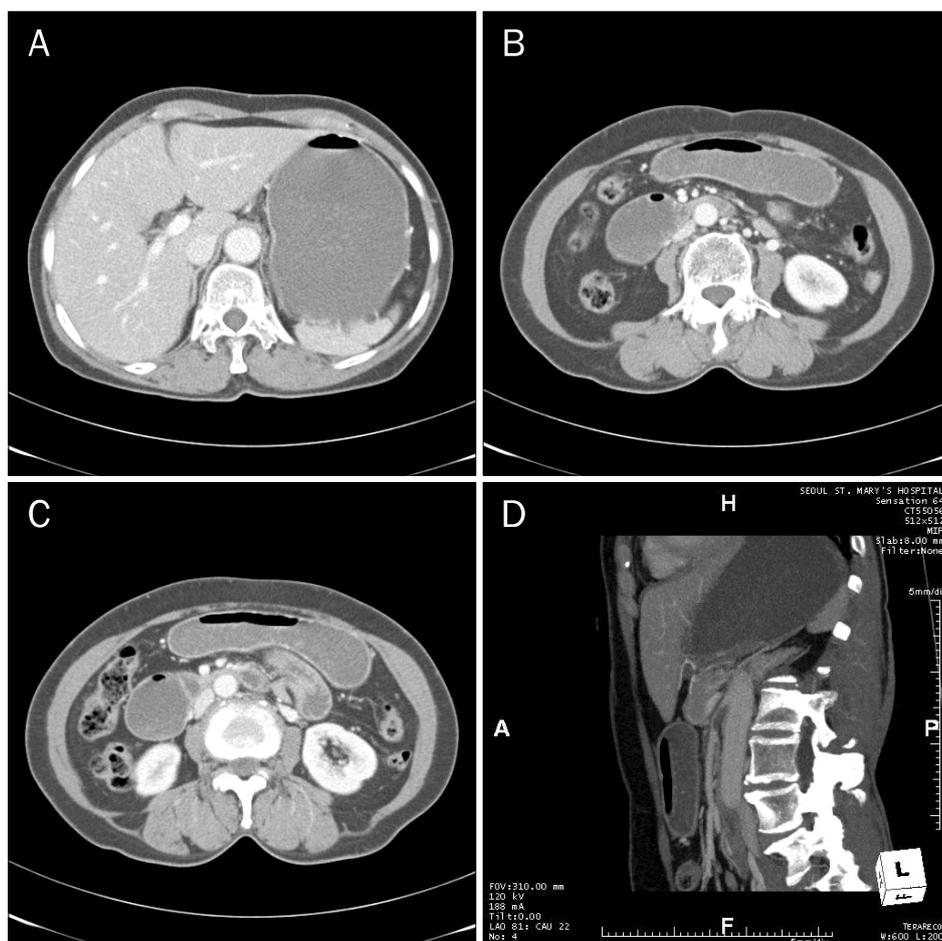


Fig. 1. Abdominal CT scan reveals marked distension of stomach and duodenum (A, B), and narrowing of proximal jejunum (C). (D) An 8×6 mm-sized thrombus is seen within the proximal superior mesenteric artery.

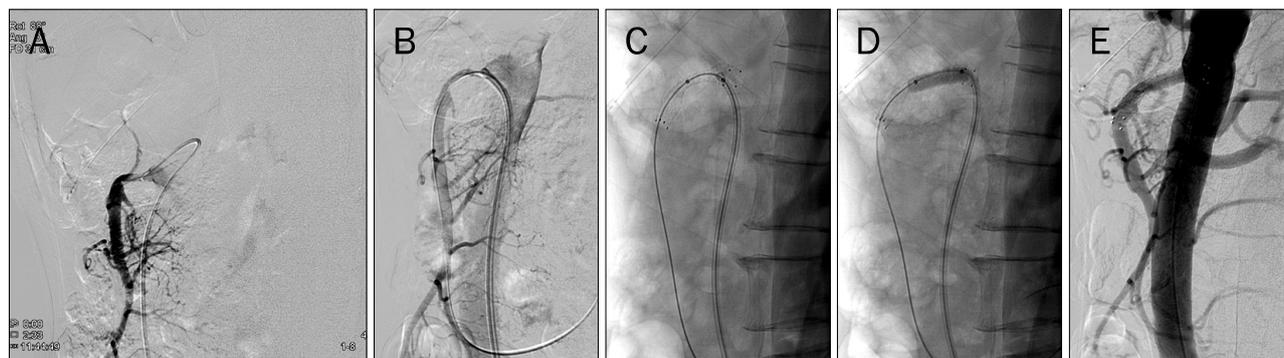


Fig. 2. (A) Angiography shows moderate and eccentric stenosis of the proximal superior mesenteric artery. (B) An 8 Fr guiding catheter was inserted into arterial sheath over the 0.035 Fr guidewire and its tip was placed within the proximal portion of the superior mesenteric artery. (C, D) The stenotic site was dilated and an 8×40 mm self expandable stent (Zilver; Cook Medical, Bloomington, IN, USA) was inserted which was expanded with 6×20 mm balloon (Foxcross; Abbott Vascular, Abbott Park, IL, USA). (E) Follow-up renal arteriography reveals well positioned stent with patent superior mesenteric artery lumen.

Diagnosis: Spontaneous isolated superior mesenteric artery dissection

Spontaneous isolated SMA dissection (SISMAD) is a very rare cause of acute abdominal pain. Dissection of SMA usually occurs as an extension of aortic dissection. However,

SISMAD is not associated with aortic dissection. Although early detection of this condition is very difficult, the number of patients diagnosed at an early acute stage has increased due to the widespread use of imaging modality such as CT scan.¹ Common presenting symptoms of SISMAD include

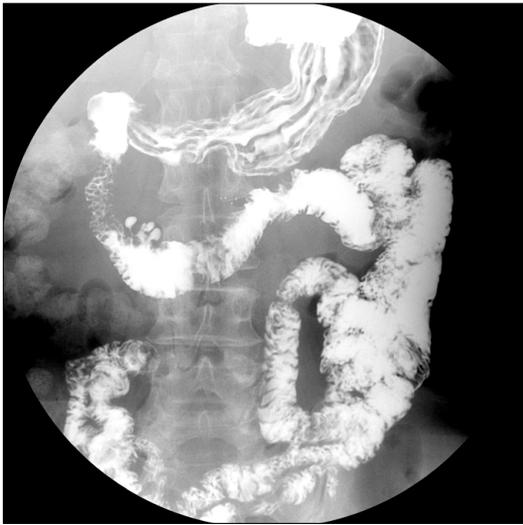


Fig. 3. Upper gastrointestinal series show no definite evidence of luminal narrowing or passage disturbance.

acute isolated abdominal pain, abdominal pain with vomiting, and sub-acute intestinal obstruction.² In the present case, the patient presented with severe diffuse abdominal pain and vomiting. The presence of gastric and duodenal distension along with narrowing of proximal jejunum on CT scan are findings similar to SMA syndrome. There are several therapeutic options such as conservative management, surgical

revascularization or endovascular therapy.³ In our case, we presumptively performed endovascular stent insertion because of a concern about ischemic injury of bowel.

To our knowledge, there have been no reports on SISMA that manifested as abdominal pain and finding similar to SMA syndrome. When a patient presents with severe abdominal pain without obvious tender point on physical examination, physician should be prompt to rule out acute abdomen of vascular origin. One should be attentive not to miss the presence of gastric and duodenal distension which could be one of the presentations of SISMA.

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