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Pseudoaneurysm rupture of the splenic artery: a rare cause of gastrointestinal bleeding

Key-words: Chronic pancreatitis; Splenic artery; Pseudoaneurysm; Endovascular

Dear Editor,

A 46-year-old female with a history of chronic alcoholic pancreatitis and ongoing alcohol consumption was admitted due to an exacerbation of her condition. After 72 hours in the hospital, she developed melena and severe epigastric pain, along with a significant drop in hemoglobin levels (approximately 4 g/dL). An abdominal-pelvic angiography (Fig. 1A) revealed a pseudoaneurysm of the splenic artery, suspected to have ruptured into the digestive system through the pancreatic ductal system, resulting in "hemosuccus pancreaticus". Embolization of the pseudoaneurysm with hydrocoils was performed (Fig. 1B), leading to a successful recovery. The patient remains asymptomatic with a subsequent CT angiography showing complete arterial occlusion (Fig 1C).

DISCUSSION

A splenic artery pseudoaneurysm is a rare vascular pathology with an estimated prevalence of less than 1%, and its rupture can be fatal. Risk factors include acute and chronic pancreatitis, trauma and pancreatic pseudocysts (1, 2). Although the exact pathogenesis is not clear, it is believed that the local release of pancreatic enzymes in conditions such as acute pancreatitis can lead to the breakdown of elastin fibers and degeneration of the vessel wall, predisposing it to false aneurysmal dilation of the splenic artery (3). The risk of rupture of a splenic artery pseudoaneurysm can reach 80% in symptomatic cases and carries a mortality rate of up to 90%, making early diagnosis and urgent treatment essential. Given its variable presentation, ranging from incidental findings on imaging to unstable gastrointestinal bleeding, it poses a

diagnostic challenge in clinical practice (2, 3).

The diagnosis should be considered in patients presenting with upper or lower gastrointestinal bleeding, vomiting, abdominal or back pain, and a known history of pancreatic disease, as observed in the case presented here (1). The standard treatment is an endovascular approach, typically performed percutaneously, but depends on the clinical presentation and the success of the initial technique, surgical intervention may be indicated (2, 3).

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