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Refractory gastrointestinal bleeding caused by splenic artery pseudoaneurysm rupture

Eri Nishikawa[1], Tetsuya Yoshizaki[1], Takashi Toyonaga[2], Yuzo Kodama[1]

Affiliations:

[1]Division of Gastroenterology, Department of Internal Medicine, Kobe University Graduate School of Medicine, Kobe, Japan

[2]Department of Endoscopy, Kobe University Hospital, Kobe, Japan

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List of abbreviations:

SAP, Splenic artery pseudoaneurysm

Corresponding author:

Tetsuya Yoshizaki, Division of Gastroenterology, Department of Internal Medicine, Kobe University Graduate School of Medicine, 7-5-1, Kusunoki-cho, Chuo-ku, Kobe, 650-0017, Japan.

E-Mail: yoshizak@med.kobe-u.ac.jp

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Dear Editor,

A 64-year-old man was admitted for hematemesis. Esophagogastroduodenoscopy revealed a gastric ulcer with a visible vessel on the posterior wall of the gastric body. After admission, the patient developed multiple episodes of massive hematemesis.

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During emergent esophagogastroduodenoscopy, he developed hemodynamic instability due to spurting bleeding (Fig. 1). On day 18 of hospitalization, hemostasis was achieved using hemostatic forceps; however, contrast-enhanced computed tomography performed on the same day revealed a small splenic artery pseudoaneurysm (SAP) that had not been previously detected (Fig. 2). To prevent fatal re-bleeding, interventional radiology was performed, and coil embolization was applied proximal to the pseudoaneurysm. The patient recovered without further hematemesis. One month later, exposed coils were observed from the healing ulcer, and celiac trunk angiography confirmed splenic artery thrombosis (Fig. 3). Despite multiple attempts at endoscopic intervention, the patient developed recurrent hematemesis, suggesting that the gastric ulcer had eroded into the splenic artery, forming the SAP and causing significant hemorrhage. Although SAPs secondary to gastric ulcers are extremely rare (1,2), early recognition is critical because they carry a high risk of rupture and mortality. Endoscopic procedure alone may be insufficient, and an endovascular approach is a standard treatment to prevent life-threatening re-bleeding (3).

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References

1. Tessier DJ, Stone WM, Fowl RJ, et al. Clinical features and management of splenic artery pseudoaneurysm: case series and cumulative review of literature. J Vasc Surg 2003; 38(5): 969–974.

2. Cho SB, Park SE, Lee CM, et al. Splenic artery pseudoaneurysm with splenic infarction induced by a benign gastric ulcer: a case report. Medicine (Baltimore) 2018; 97(29): e11589

3. Relvas LM, Abegão T, Cunha C, Peixe B. Pseudoaneurysm rupture of the splenic artery: a rare cause of gastrointestinal bleeding. Rev Esp Enferm Dig. 2024 Jul 11.

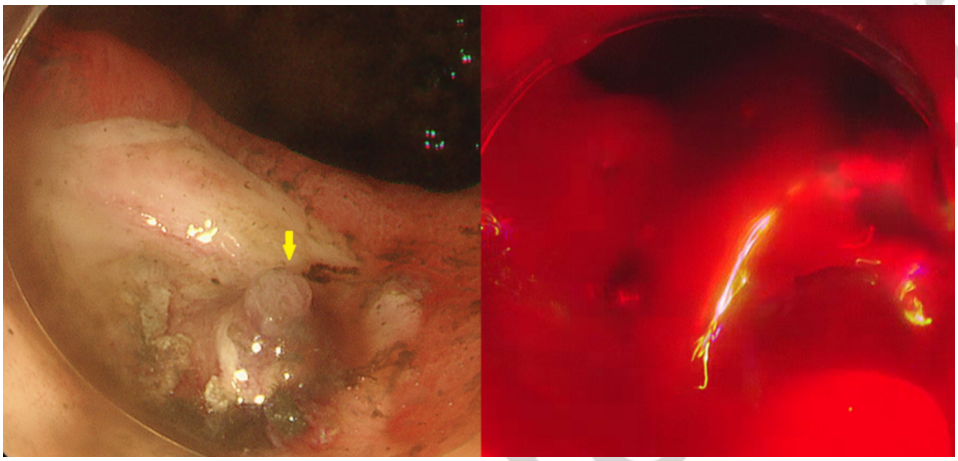

Figure 1

On the 18th day of admission, a pulsatile, protruding vessel (yellow arrow) was observed. Hemostasis was attempted with hemostatic forceps, but the vessel began to spurt blood massively, quickly filling the gastric cavity.

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Figure 2

Three-dimensional computed tomography angiogram reconstruction showing a splenic artery pseudoaneurysm (yellow arrow).

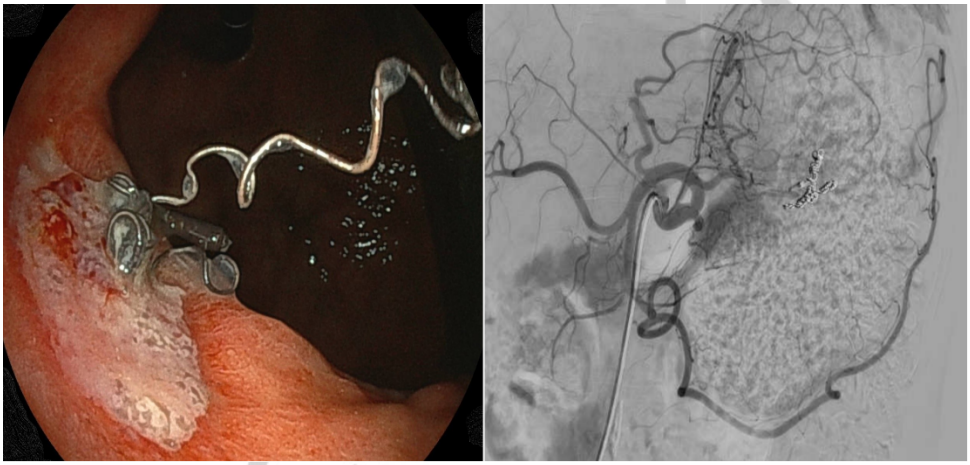

Figure 3

One month post-embolization, esophagogastroduodenoscopy revealed exposed coils at the healing ulcer site. Celiac trunk angiography confirmed complete thrombosis of the splenic artery, with blood flow to the spleen maintained via the right gastro-omental artery.