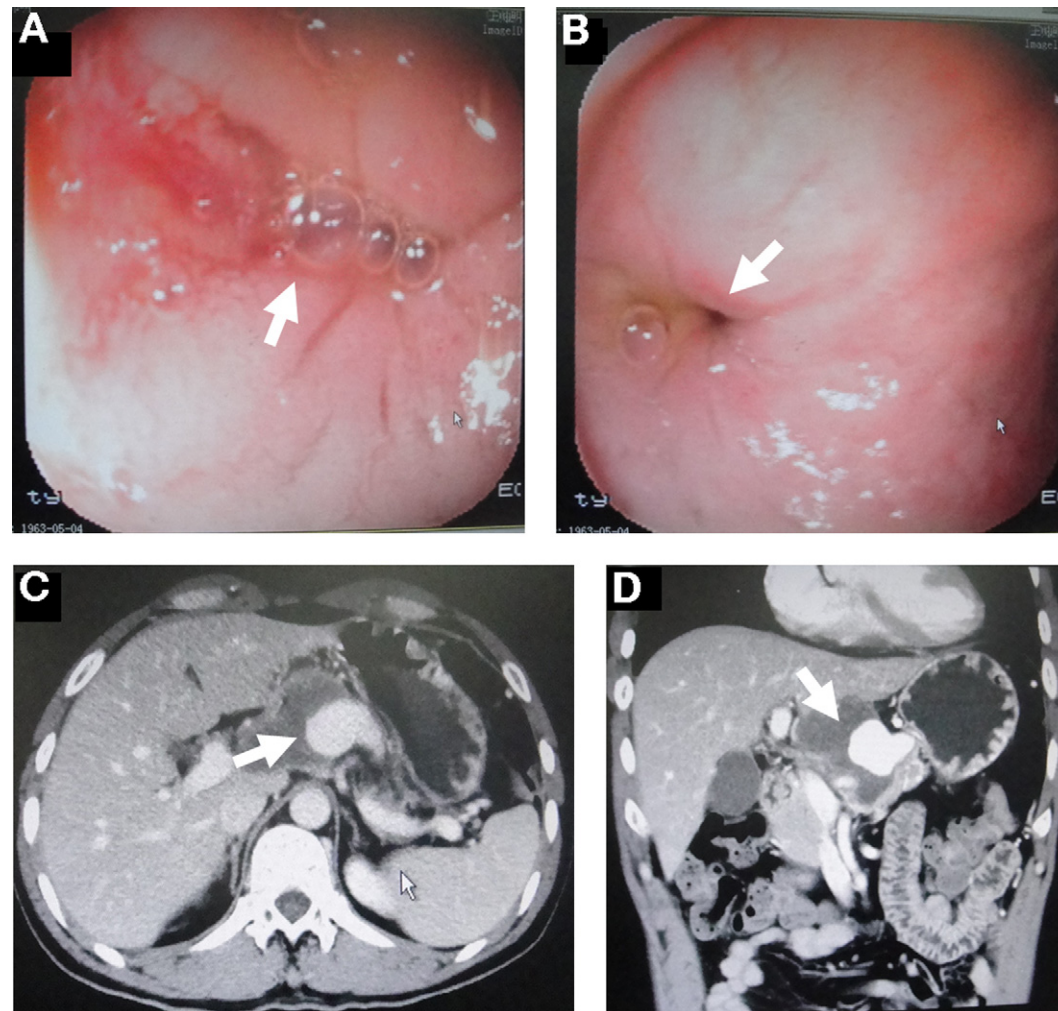


An Unusual Cause of Recurrent Massive Upper Gastrointestinal Bleeding

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Question: A 50-year-old man presented with acute onset of massive hematemesis and a transient loss of consciousness. He denied acid reflux, or abdominal pain or distension. His past history revealed bleeding duodenal ulcer diagnosed by endoscopy 1 year ago. Although treated with esomeprazole continuously, he suffered from recurrent hematemesis 4 times during the last year. Physical examination showed unstable vital signs with hypotension (92/70 mmHg) and tachycardia (heart rate, 106 bpm). The patient was treated conservatively with fluid infusion and esomeprazole. After 2 episodes of melena, there were no signs of massive rebleeding. Gastroscopy was performed and blood-like fluid effusion in the duodenal bulb was detected (Figure A). After washing with normal saline, a deep ulcer-like lesion

with a diameter about 0.2 cm was revealed on noninflamed duodenal mucosa (Figure B). Both cross-sectional (Figure C) and coronal (Figure D) imaging of contrast-enhanced computed tomography (CT) showed a large hematoma between the duodenal bulb and pancreas in the artery phase.

What is the most likely cause of upper GI bleeding in this patient?

Look on page 872 for the answer and see the GASTROENTEROLOGY web site (www.gastrojournal.org) for more information on submitting your favorite image to Clinical Challenges and Images in GI.

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Answer to the Clinical Challenges and Images in GI Question: Image 3 (page 542): Erosion of Splenic Artery Pseudoaneurysm by a Penetrating Duodenal Bulb Ulcer Causes Massive Upper GI Bleeding

CT angiography revealed that splenic artery coursed a pseudoaneurysm (Figure E, F). The splenic artery pseudoaneurysm (SAPA) was further disclosed by volume rendering reformatted coronal (Figure G) and left oblique sagittal images (Figure H). The patient underwent splenectomy and gastrojejunal Roux-en-Y anastomosis. Surgical findings showed a SAPA–duodenal bulb fistula that was temporarily embolized by thrombus. Postoperatively, the patient recovered uneventfully and was discharged on day 18 after admission.

Gastrointestinal bleeding from SAPA is unusual but potentially lethal.¹ To date, only about 160 cases of SAPA have been reported.² Causes of SAPA include pancreatitis (52%), trauma (29%), iatrogenic and postoperative causes (3%), and rarely peptic ulcer (gastric ulcer; 2%).² To the best of our knowledge, duodenal ulcer erosion of a SAPA has yet to be reported. SAPA rupture is life threatening. A common site of hemorrhage is the pancreatic duct, with some into peritoneal cavity, stomach, or even into colon.^{2,3} However, SAPA fistulizing to duodenal bulb is extremely rare, which makes accurate diagnosis difficult. In the present case, the unusual patient history and endoscopic findings preclude pharmaceutical and endoscopic approach for diagnosis and hemostasis. In this situation, imaging techniques, especially CT angiography and 3-dimensional rendering, are beneficial for survey of the bleeding vessels. Surgical intervention or endovascular therapy is recommended to repair the bleeding pseudoaneurysm.

References

1. Pasha SF, Gloviczki P, Stanson AW, et al. Splanchnic artery aneurysms. *Mayo Clin Proc* 2007;82:472–479.
2. 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;38:969–974.
3. Sweetser SR, Wong Kee Song LM. An unusual cause of hematochezia. *Gastroenterology* 2009;137:1895.

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