Hematemesis from ruptured aberrant right hepatic artery aneurysm eroding through the duodenal wall

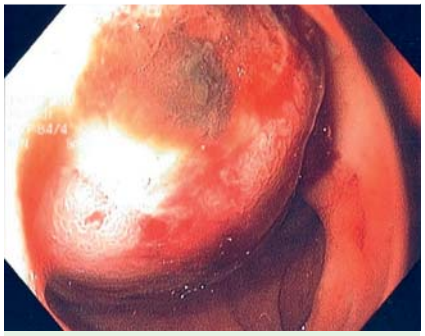


Fig. 1 Large submucosal mass with ulcer in the duodenal bulb.

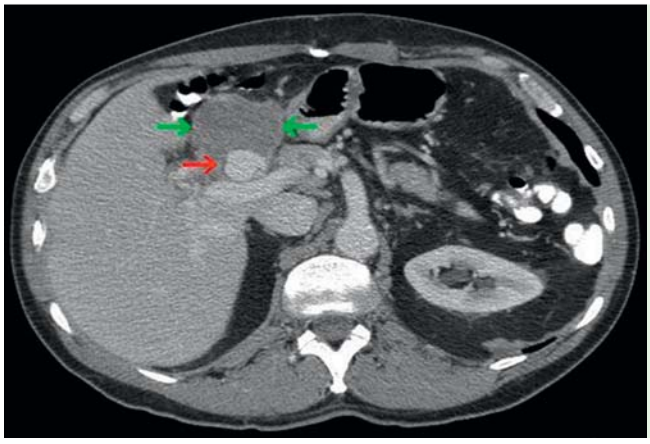


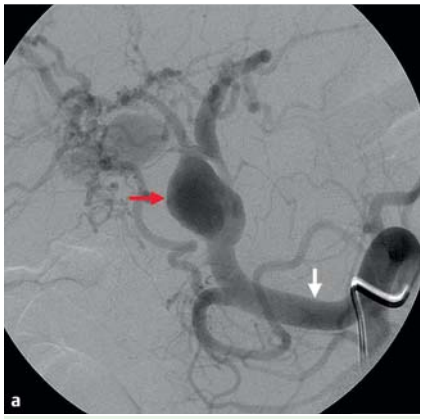
Fig. 2 An oral and intravenous contrast-enhanced computed tomography (CT) scan demonstrates a pseudoaneurysm (red arrow) with a surrounding hematoma (green arrows) just above the duodenal bulb and medial to the left lobe of the liver.

A 56-year-old man presented with hematemesis and multiple episodes of melena. He had a history of chronic lymphocytic leukemia and traumatic rupture of the spleen leading to splenectomy and splenic artery embolization 6 years earlier.

Esophagogastroduodenoscopy (EGD) revealed a large submucosal mass (7 × 5 cm) with an ulcerated overlying area associated with clot in the duodenal bulb (**Fig. 1**). The ulcer was treated with epinephrine (1 : 10 000). A computed tomography (CT) scan of the abdomen revealed a 2.5 × 1.8-cm pseudoaneurysm from an aberrant hepatic artery off the superior mesenteric artery (**Fig. 2**) along with surrounding hematoma, causing mass effect on the duodenum; this was further confirmed with a CT angiogram (**Fig. 3a**).

Coil embolization was performed with complete obliteration of the hepatic artery pseudoaneurysm (**Fig. 3b**). The patient was subsequently discharged home after 4 days of observation.

The patient presented 2 months later with recurrent episodes of melena. A CT angiogram showed no active extravasations. EGD revealed a long segment of coil protruding from the pylorus into the stomach, along with coffee ground materials. There was a large mound-like focal bulge at the superior aspect of the duodenal bulb, with a 6-mm defect without active bleeding, along with the protruding coil (**Fig. 4**). The patient underwent a distal gastrectomy, Billroth II gastrojejunostomy, and ligation of gastroduodenal artery. He was discharged after 5 days of observation and remained well without further episodes of bleeding after 6 months of follow-up.



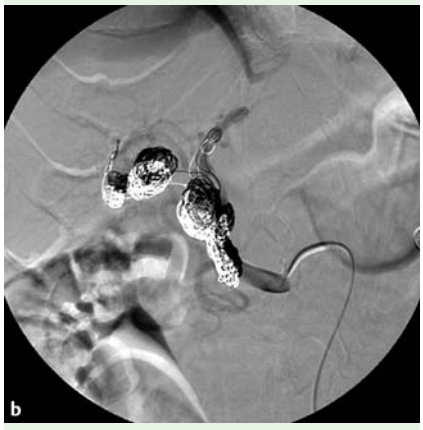


Fig. 3 **a** An angiogram performed immediately after the computed tomography (CT) scan confirms the pseudoaneurysm (red arrow) arising from a replaced hepatic artery (white arrow) off the superior mesenteric artery. **b** Post-embolization arteriogram of the common hepatic artery, demonstrating occlusion of the two large pseudoaneurysms.

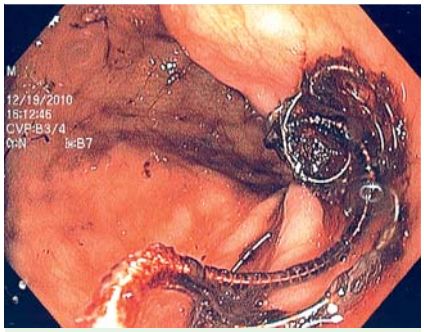


Fig. 4 Long segment of coil protruding from the pylorus into the stomach.

Hepatic artery pseudoaneurysm is a rare cause of upper gastrointestinal bleeding, and can be life-threatening [1,2]. Angiographic embolization is an effective method of treatment with a reported success rate of 80 – 100 % [3]. However, complications from embolization are not unusual, as noted in our case with extrusion of coils through the duodenal wall with potential for re-bleeding. Surgery may be needed in unusual circumstances for more definitive therapy.

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Competing interests: None

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Bibliography

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