Massive upper gastrointestinal bleeding post-Whipple’s surgery from anastomotic varices due to mesenteric hypertension

A 45-year-old man was admitted with hematemesis. He had undergone Whipple’s surgery 7 years previously for a 5-cm serous cystadenoma of the pancreatic head. Upon presentation, he was hypotensive (blood pressure 82/59 mmHg) and tachycardic (110 beats/min), with a hemoglobin of 6.8 g/dL. Gastroscopy revealed bleeding anastomotic varices alongside the gastrojejunal anastomosis (▶Fig. 1). Hemostasis was secured with a Boston Resolution clip (▶Video 1). Computed tomography (CT) scanning, followed by mesenteric angiography in the portal venous phase and CT arteriography showed proximal superior mesenteric vein (SMV) occlusion, with a large collateral vein draining the small bowel into the anastomotic varices, which decompressed via the enlarged left coronary vein (LCV) into a patent portal vein (▶Fig. 2). The occluded SMV was recanalized, dilated to 8 mm, and stented with a 7 x 29-mm Omnilink stent via a transhepatic approach, thereby re-establishing antegrade flow with subsequent collapse of the collateral vein and anastomotic varices (▶Fig. 3).

Gastrointestinal bleeding is a complication reported in 2%–8% of patients following a Whipple procedure [1]. Sources of upper gastrointestinal bleeding include pseudoaneurysms, pancreatic fistulas, anastomotic ulcers, and ectopic varices [2–5]. We report a case of bleeding anastomotic varices that developed from mesenteric hypertension as a result of SMV occlusion following surgery. As the small bowel was solely draining back to the portal vein via a collateral vein and anastomotic varices, endoscopic glue injection into the anastomotic varices could have led to bowel ischemia. Successful stenting of the occluded SMV resulted in the re-establishment of normal hemodynamics, decompressing the anastomotic varices, and therefore preventing future bleeding episodes.

Endoscopy_UCTN_Code_TTT_1AO_2AD

Competing interests

None
Fig. 1 Endoscopic images showing bleeding anastomotic varices alongside the anastomosis of the gastroduodenostomy. Endoscopic hemostasis of the bleeding varices was achieved using a Boston Resolution clip.
Fig. 2 Computed tomography scan images of the abdomen showing: a the anastomotic varices; b a collateral vein with occluded superior mesenteric vein (SMV); c occluded SMV; d occluded portal vein and left coronary vein.
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DOI https://doi.org/10.1055/a-0595-7507
Published online: 9.5.2018
Endoscopy 2018; 50: E159–E162
© Georg Thieme Verlag KG
Stuttgart · New York
ISSN 0013-726X

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Fig. 3 Computed tomography of arterioprtography showing: a the collateral vein draining into anastomotic varices; b the vaices draining into the left coronary vein; c the occluded superior mesenteric vein recanalized, dilated, and stented with a 7 × 29-mm Omnilink stent.