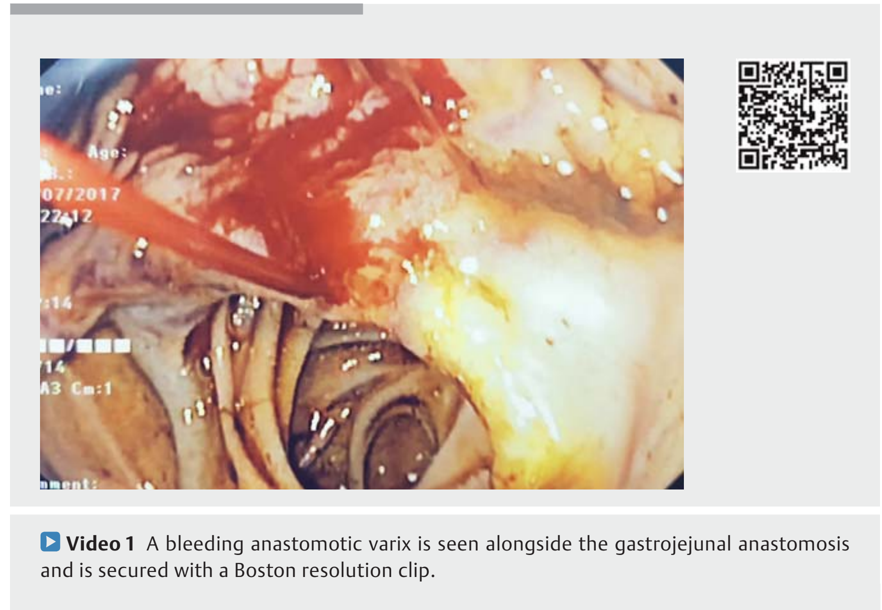
Massive upper gastrointestinal bleeding post-Whipple's surgery from anastomotic varices due to mesenteric hypertension

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 arterioportography 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 × 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**).



Video 1 A bleeding anastomotic varix is seen alongside the gastrojejunal anastomosis and is secured with a Boston resolution clip.

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

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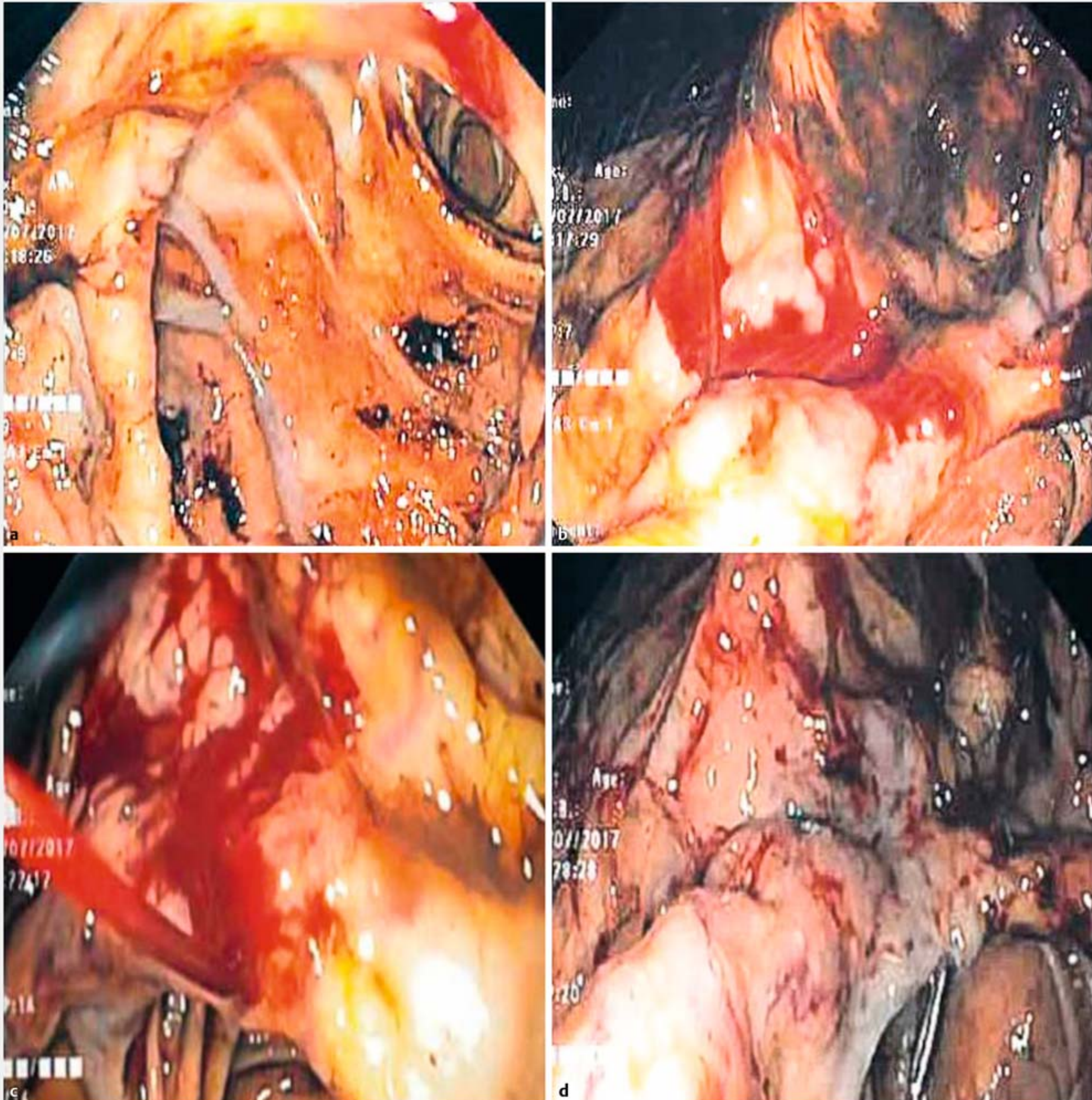

▶ **Fig. 1** Endoscopic images showing bleeding anastomotic varices alongside the anastomosis of the gastroduodenostomy. Endoscopic hemostasis of the bleeding varices was achieved using a Boston Resolution clip.

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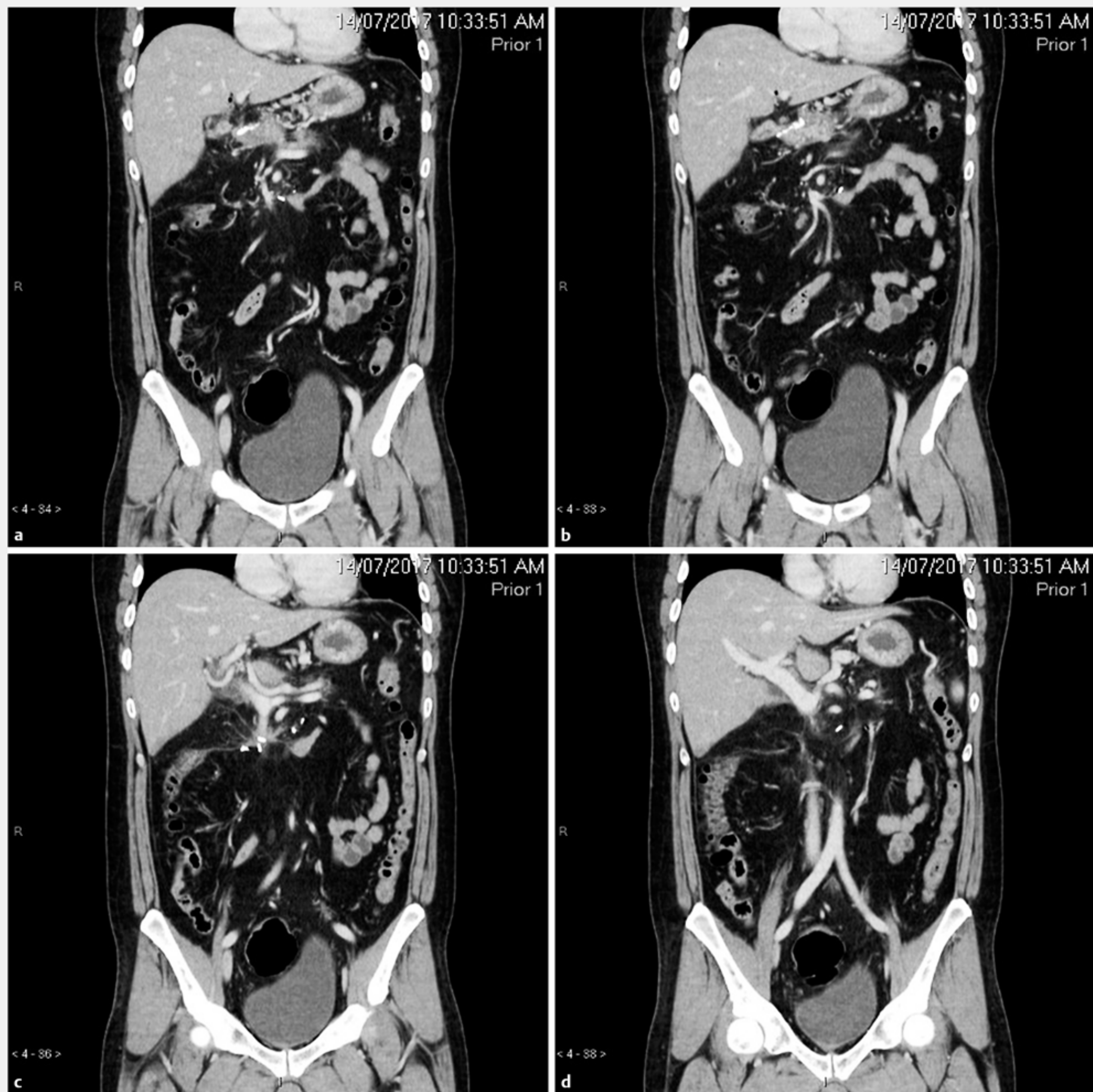

► **Fig. 2** Computed tomography scan images of the abdomen showing: **a** the anastomotic varices; **b** a collateral vein with occluded superior mesenteric vein (SMV); **c** occluded SMV; **d** occluded portal vein and left coronary vein.

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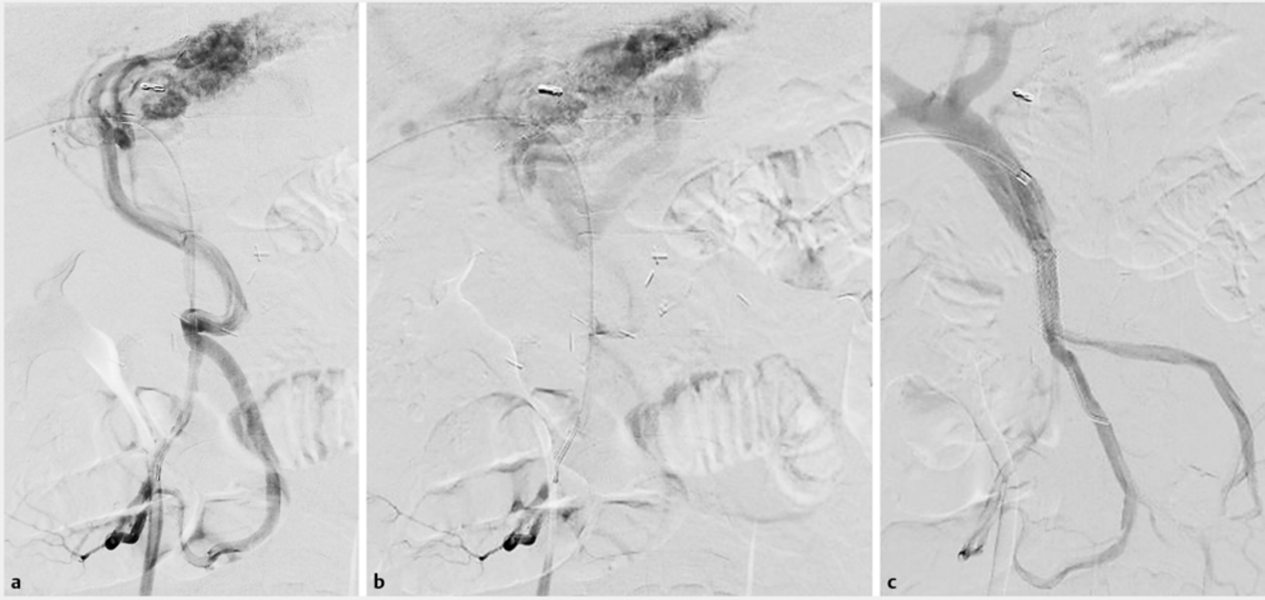

▶ **Fig. 3** Computed tomography of arterioportography showing: **a** the collateral vein draining into anastomotic varices; **b** the vaices draining into the left coronary vein; **c** the occluded superior mesenteric vein recanalized, dilated, and stented with a 7 × 29-mm Omnilink stent.

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