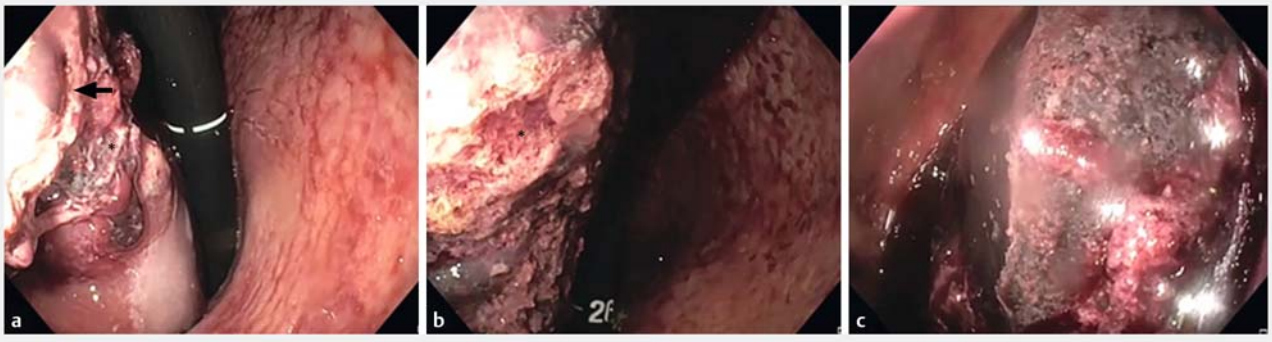
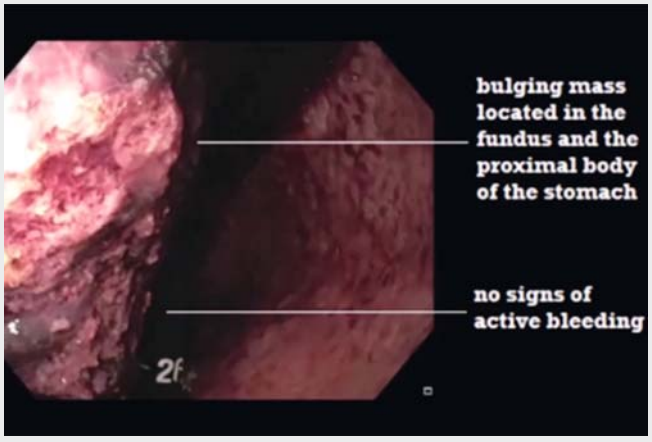
Primary aortogastric fistula: an extraordinary rare endoscopic finding in the setting of upper gastrointestinal bleeding



▶ **Fig. 1** Views during esophagogastroduodenoscopy showing: **a, b** on retroflexed view, an extrinsic bulging mass in the stomach (asterisk), partially covered by blood clots (arrow), originating from the fundus and extending to the posterior wall of the proximal body; **c** on frontal view, a large adherent blood clot.

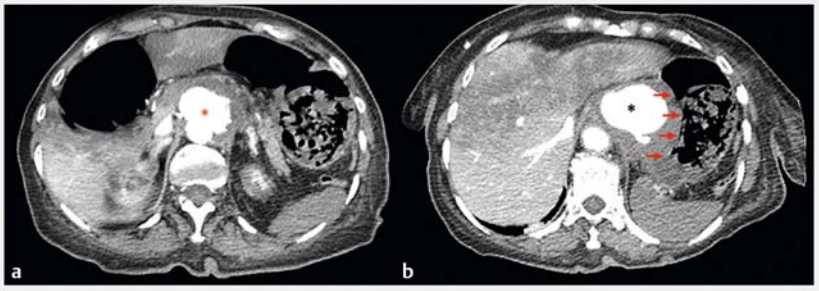
A 78-year-old lady with a history of arterial hypertension and left upper lobectomy 4 months previously for stage IIB lung adenocarcinoma was admitted to our bleeding unit with severe anemia (hemoglobin level on admission 6.7 g/dL) and recent onset of melena. No hemodynamic instability was observed and, after a blood transfusion had been given, urgent esophagogastroduodenoscopy was performed with the patient under monitored anesthesia care. The retroflexion maneuver revealed an extrinsic pulsating bulging mass, partially covered by adherent large blood clots, originating from the fundus and extending to the posterior wall of the proximal body of the stomach. No active bleeding was noted (▶ **Fig. 1**; ▶ **Video 1**).



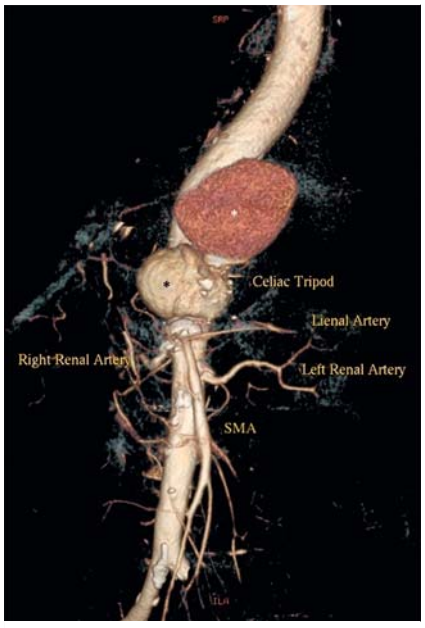
Video 1 Diagnosis and management of a primary aortogastric fistula in the setting of acute upper gastrointestinal bleeding.

Emergent computed tomography angiography revealed a ruptured thoracoabdominal aortic aneurysm (TAAA) within a 7 × 6-cm periaortic hematoma that was compressing the gastric wall. No contrast extravasation into the stomach was noted; however, the tissue planes between the aorta and the stomach appeared obliterated (▶ **Fig. 2**). The TAAA involved the proximal part of the celiac artery and was located around 12 mm above the origin of the superior mesenteric artery (SMA) (▶ **Fig. 3**). The patient was immediately transferred to the surgical theatre. After prompt multidisciplinary evaluation, endovascular stent grafting was successfully performed just above the SMA ostium. A subsequent gastric surgical repair was planned after clinical stabilization had been achieved. Unfortunately, the patient succumbed on postoperative day 2 from multiorgan failure.

Primary aortoenteric fistulas are communications between the native aorta and any part of the gastrointestinal (GI) tract, with a reported incidence of 0.07 % [1]. A primary aortogastric fistula (PAGF) is an extraordinary location for this [1], with an extremely high mortality [2]. To date, endoscopic images of PAGFs have only been provided in three case reports [3 – 5]. This is the first video to show with ex-



▶ **Fig. 2** Arterial phase contrast-enhanced computed tomography images showing: **a** a contained rupture of a thoracoabdominal aortic aneurysm (red asterisk); **b** a periaortic hematoma (black asterisk) compressing the posterior gastric wall with loss of the tissue planes between the aorta and the stomach (arrows).



▶ **Fig. 3** Three-dimensional computed tomography angiography showing the ruptured thoracoabdominal aortic aneurysm (black asterisk), contained within a periaortic hematoma (white asterisk) and located around 12 mm above the ostium of the superior mesenteric artery (SMA).

ceptional clarity the endoscopic appearance of a PAGF. GI endoscopists should be aware of this life-threatening, albeit extremely rare, cause of GI bleeding in order to provide early diagnosis and treatment.

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Competing interests

The authors declare that they have no conflict of interest.

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Bibliography

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