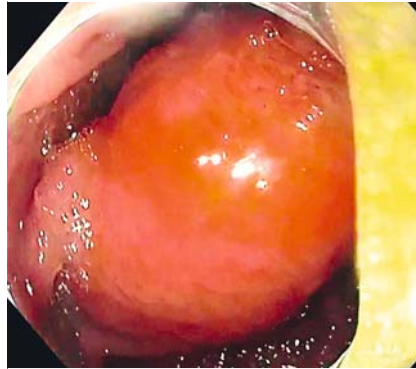


## Endoscopic dissection of a symptomatic giant gastric leiomyoma arising from the muscularis propria

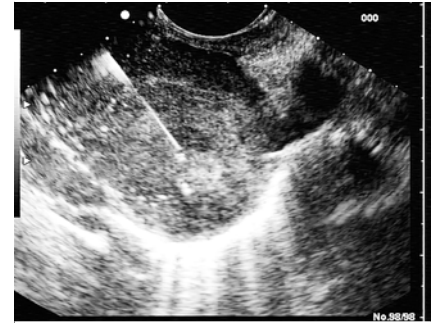
Gastrointestinal (GI) subepithelial masses represent a heterogeneous group of lesions, ranging from benign to malignant, for which management is sometimes challenging [1, 2]. We report the case of an 85-year-old woman, with a history of coronary artery disease and chronic atrial fibrillation being treated with anticoagulant therapy, who underwent urgent upper GI endoscopy for hemorrhagic shock and melena. During this procedure, a giant, 15-cm, non-pedunculated mass that was ulcerated on top was found at the greater curvature of the anterior wall of the stomach (► **Fig. 1**).

The patient then underwent radial endoscopic ultrasonography (EUS; GF-UE160-AL5; Olympus), which showed a hypoechoic homogeneous intramural mass that was arising from the muscularis propria and was suspected to be a leiomyoma (► **Fig. 2**). In order to achieve a definitive diagnosis, EUS with fine needle aspiration (FNA) was performed (GF-UCT180; Olympus) using a 22-gauge needle (Expect-SlimLine; Boston Scientific). Histology and immunohistochemical staining revealed that the specimen was compatible with a leiomyoma (SMA positive, CD117 and CD34 negative). Total body computed tomography (CT) excluded metastatic disease.

Because this was a symptomatic hemorrhagic lesion and there was a need to continue anticoagulant therapy, an endoscopic dissection was performed. We used the HybridKnife T-type (ERBE Elektromedizin GmbH) and a solution composed of 250 mL normal saline, 2 mL indigo carmine, and 1 mL epinephrine. The procedure took 115 minutes and resulted in an en bloc specimen, with no complications occurring (► **Fig. 3**; ► **Video 1**). However, because of its size, it was not possible to retrieve the whole lesion, which resulted in it being completely digested by gastric secretions by the following day (► **Fig. 4**).



► **Fig. 1** Endoscopic view showing the giant gastric subepithelial lesion.



► **Fig. 2** Endoscopic ultrasonography view of the lesion during performance of a fine needle aspiration.

Low molecular weight heparin was re-introduced 24 hours after the procedure and the patient was discharged 2 days later. Upper GI endoscopy and EUS performed 3 months later revealed a regular scar, without any remnant pathological tissue.

This case illustrates the feasibility and safety of endoscopic dissection of a symptomatic giant gastric leiomyoma, even in a high risk patient who was receiving ongoing anticoagulant therapy, in whom surgery would have carried considerable risk. Moreover, EUS-FNA achieved

an accurate evaluation of the lesion's layer of origin and its histopathologic characteristics, thereby allowing a definitive diagnosis to be made and the appropriate therapeutic option to be chosen.

Endoscopy\_UCTN\_Code\_CCL\_1AB\_2AD\_3AB

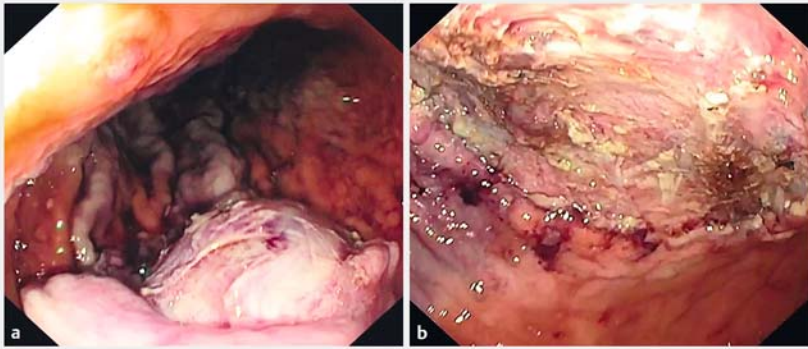
### Competing interests

None

### ► Video 1



► **Video 1:** Video showing endoscopic dissection of a giant gastric subepithelial lesion.



► **Fig. 3** Endoscopic views showing: **a** the whole lesion after endoscopic dissection; **b** the appearance of the resection site immediately after endoscopic dissection.



► **Fig. 4** Endoscopic view of the resection site on the day following the procedure.

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