

## Endoscopic submucosal dissection of a solitary gastric plasmacytoma: “third space oddity”



► **Fig. 1** Endoscopic image showing a subepithelial antral lesion.



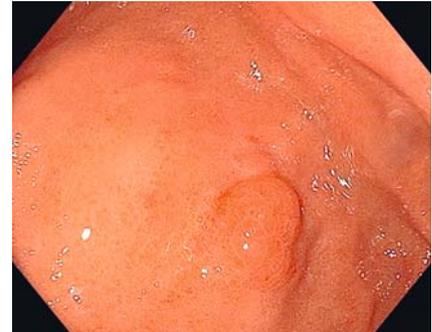
► **Fig. 2** Coronal positron emission tomography image showing a hypermetabolic focus at the stomach.

Although well established for classic indications [1–3], the use of endoscopic submucosal dissection (ESD) can help to solve rare clinical situations [4–5].

A 35-year-old woman without medical history underwent an esophagogastroduodenoscopy for progressive epigastralgia that was unresponsive to proton pump inhibitors (PPIs) for 12 months. A 10-mm subepithelial lesion in the antrum was reported (► **Fig. 1**). Biopsies revealed an extramedullary plasmacytoma, confirmed by expert pathology. Apart from weight loss, attributed to epigastralgia, no other B symptoms were present. Diagnostic work-up disclosed a unique gastric hypermetabolic focus on positron emission tomography (► **Fig. 2**). There were no biological anomalies. Bone marrow biopsy was normal.

Endoscopic evaluation 1 month after radiotherapy, administered with curative intent (40 Gy), suggested a non-responding lesion (► **Fig. 3**). Endosonography evaluation showed a homogeneous, hypoechoic mass (12.0 × 5.7 mm) limited to the submucosa (► **Fig. 4**). ESD was proposed as a treatment option in a multidisciplinary team.

Lesion delineation was obtained using narrow-band imaging (NBI) and texture and color enhancement imaging. ESD was performed by expert hands (► **Video 1**) with a GIF-HQ-190 gastroscope, using an electro-surgical knife and glycerol solution. The conventional ESD technique was applied, taking 1-cm lateral margins, dissecting alongside the proper gastric muscular layer under near focus and texture and color enhancement. En bloc resection (60 × 40 mm) was obtained in 150 minutes. No post-radiotherapy fibrosis was noted. Pathology confirmed the presence of a 21-mm submucosal lambda monoclonal plasmacytoma infiltrating up to 1 071 micrometers. Lateral and vertical margins were free, even though free deep submucosa was only 50 micrometers on



► **Fig. 3** Endoscopic image showing subepithelial antral lesion 1 month after completion of radiotherapy (20 × 2 Gy).

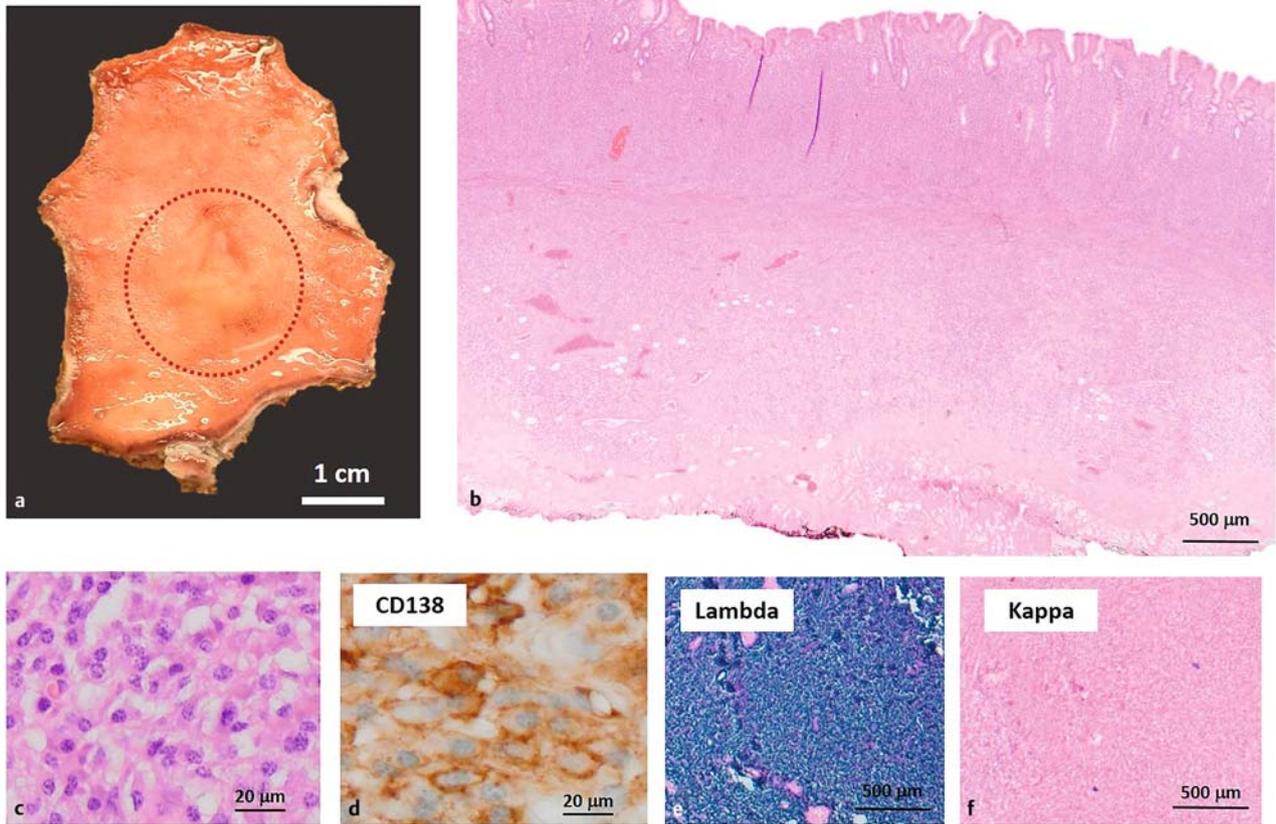


► **Fig. 4** Endoscopic ultrasound image (underwater) of a homogeneous, hypoechoic mass (12.0 × 5.7 mm) limited to the submucosa.

the specimen (► **Fig. 5**). Endoscopic evaluation at 6 months showed post-ESD scarring without signs of relapse (► **Video 1**), while the patient reported minor residual epigastralgia but regained normal weight. Albeit the outcome is reassuring, close endoscopic and imaging follow-up is proposed.

Although rare, ESD (alone or complementary to other treatment modalities) can serve as an adequate treatment for digestive plasmacytoma beyond the scope of its classic indications.

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



► **Fig. 5** Pathology images. **a** Macroscopic picture of the resected specimen showing the subepithelial lesion (red dotted circle) and 1-cm margins. **b** Inflammatory infiltrate located mainly in the mucosa and submucosa. **c** At higher magnification, histopathological aspect of inflammatory cells (eccentric nucleus with coarse chromatin and cart wheel pattern) suggests diffuse infiltration by plasma cells. **d** Anti-CD138 immunostaining confirms inflammatory nature of plasma cells. **e, f** In situ hybridization shows lambda monoclonality.



► **Video 1** Endoscopic submucosal dissection of a solitary gastric plasmacytoma: “third space oddity”.



### Competing interests

The authors declare that they have no conflict of interest.

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*Endoscopy* 2022; 54: E732–E734  
**DOI** 10.1055/a-1773-0336  
**ISSN** 0013-726X  
**published online** 10.3.2022  
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 Georg Thieme Verlag KG, Rüdigerstraße 14,  
 70469 Stuttgart, Germany

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