Gastric glomus tumor: a rare case of dyspepsia

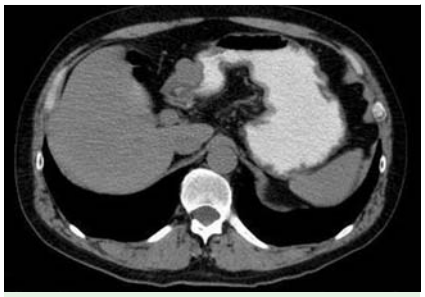

Fig. 1 A computed tomography (CT) scan in a 54-year-old man with intermittent epigastric pain and dyspepsia showing a hyperdense mass in the gastric antrum.

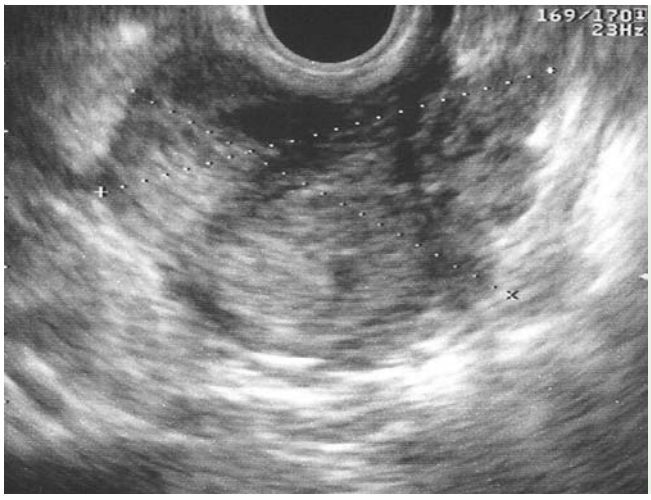

Fig. 2 Endoscopic ultrasound (EUS) view showing a homogeneous hypoechoic mass arising from the muscularis propria without evidence of deep involvement.

Gastric glomus tumors (GGTs) are rare mesenchymal tumors of the gastrointestinal tract originating in the neuromyoarterial glomus [1] and accounting for 1% of gastrointestinal stromal tumors (GISTs). GGTs are generally considered to be clinically benign [2], but malignant behavior cannot be excluded [3,4]. They present as submucosal masses that project into the lumen or out onto the serosa [5] and are distinct lesions that should be considered in the differential diagnosis of a gastric submucosal mass.

In the case presented here, a 54-year-old man was admitted to our surgical department with intermittent epigastric pain and dyspepsia. Gastroscopy revealed the presence of a smooth submucosal mass in the gastric antrum, measuring 10 mm in diameter. A computed tomography (CT) scan confirmed the presence of the mass and showed no evidence of metastasis (**Fig. 1**). Endoscopic ultrasound (EUS) demonstrated the presence of a homogeneous hypoechoic mass arising from the muscularis propria (**Fig. 2**).

A partial gastrectomy with a Billroth II reconstruction was performed, and the patient was discharged after 7 days. Microscopically the tumor consisted of medium-sized cells with low proliferative activity (**Fig. 3**). The results of immunohistochemical analysis of the specimen are given in **Table 1**. After 36 months of follow-up the patient shows no signs of recurrence.

GGTs are often confused with GISTs or neuroendocrine tumors [6]. EUS helps to identify the layer of origin [1], which is usually the third and/or fourth layer. A CT scan will show strong enhancement, but does not help with the differentiation of GGTs from other submucosal lesions, such as carcinoid, ectopic pancreas, and some GISTs [1]. Immunohistochemical studies have revealed that the cells of a GGT are positive for smooth muscle actin and muscle-specific actin [6]. Endoscopic full-thickness resection is a safe and feasible procedure [7], but the possible approaches (laparotomy/laparoscopy or an endoscopic technique) should be discussed with the patient, taking account of the experience of the center.

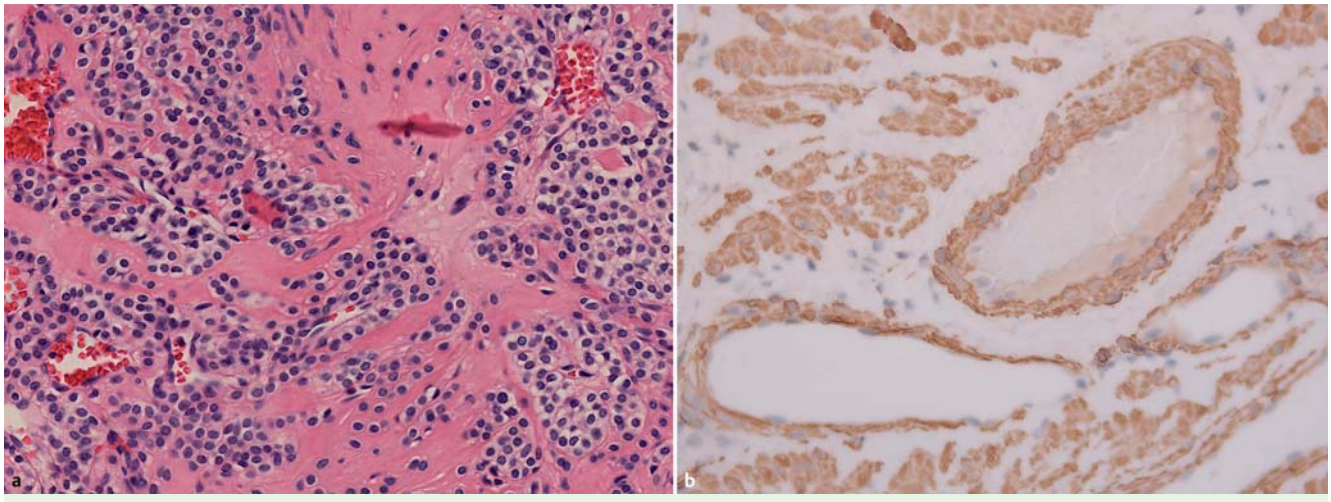

Fig. 3 Microscopic appearances of the resected specimen showing: **a** medium-sized cells stained with hematoxylin and eosin (H&E; magnification ×40); **b** positive immunohistochemical staining for muscle-specific actin.

Table 1 Results of immunohistochemical staining (Ventana Medical Systems Inc., Tucson, Arizona, USA) of the resected specimen.

Antibody	Dilution, µg/mL	Result
Cytokeratin AE1/AE3	46.3	–
S-100 protein	10	–
CD34	0.8	–
CD117	100	–
Chromogranin	1	–
Synaptophysin	0.5	+/–
Vimentin	25	+
Muscle-specific actin	0.02	+
Calponin	0.15	+
Caldesmon	0.29	+

Endoscopy_UCTN_Code_CCL_1AB_2AD_3AB

Competing interests: None

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Bibliography

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