Gastric glomus tumor: report of one case and review

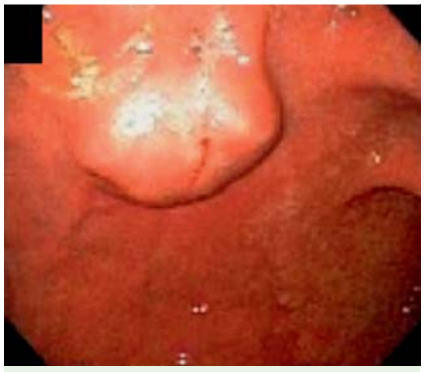

Fig. 1 Endoscopic image of a well-defined submucosal tumor with normal overlying mucosa.

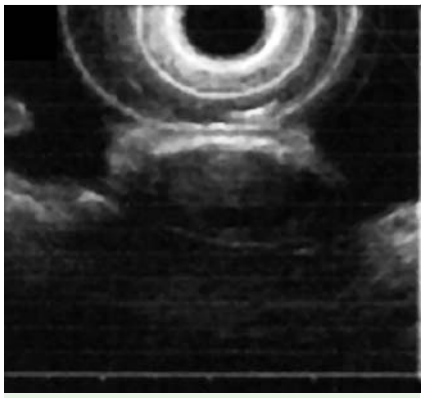

Fig. 2 Endoscopic ultrasound showing a tumor arising from the muscular layer.

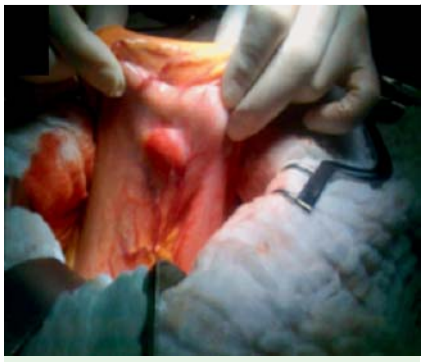

Fig. 3 Findings at surgery. A rounded tumor in the anterior distal gastric body, with well defined borders. A local excision was performed.

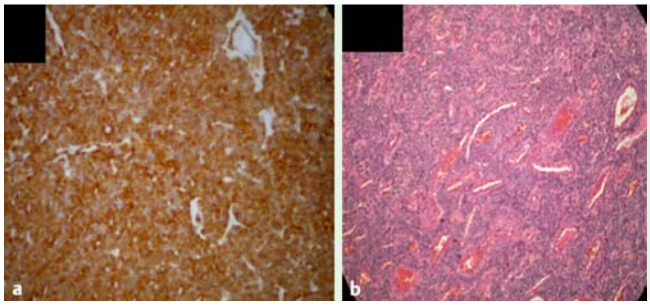

Fig. 4 **a** Histopathology showing positive staining for smooth muscle actin. **b** Hematoxylin and eosin stain; low magnification. Nests of glomus cells surrounding capillary-size vessels.

A healthy 26-year-old woman presented with a year of intermittent epigastric pain but no other symptoms. Upper gastrointestinal endoscopy showed, on the anterior wall of the gastric body, a submucosal, elevated, well-defined lesion measuring 3 cm in diameter, with normal overlying mucosa (▶ **Fig. 1**).

Endoscopic ultrasonography showed a hypoechoic lesion arising from the muscularis propria, without deep involvement (▶ **Fig. 2**), compatible with a gastrointestinal stromal tumor (GIST).

The patient was operated on. A well-defined 2-cm tumor, without serosal involvement, was found on the anterior wall of the gastric body. A partial gastrectomy was done with 1-cm margins (▶ **Fig. 3**).

The patient was discharged without problems.

The biopsy showed in the muscularis propria a well-defined stromal tumor made of vascular structures, covered by a single layer of endothelial cells, and with dense cellular proliferation around the vascular structures, with low mitotic rate (one or two mitoses per 50 high-power fields) and without necrosis. Immunohistochemical staining was positive for smooth muscle actin. The conclusion was that it was a glomangioma (▶ **Fig. 4a, b**).

Glomus tumors are rare. Nearly 75% of glomus tumors are localized in the hands, under the nails [1]. They originate from the normal myoarterial apparatus and are constituted by an afferent arteriole and vascular channels with endothelial cells, surrounded by cuboidal cells [2]. Just 2% of benign gastrointestinal tumors are vascular tumors; most are glomus tumors [3]. The majority are asymptomatic, and the diagnosis is incidental; upper gastrointestinal bleeding and ulcerous syndrome are the most frequent symptoms. Glomus tumors have a female predominance (2.5:1). The majority are benign and single, but the malignant potential is unpredictable [4,5]. The peak incidence of glomus tumors is in the sixth decade of life. Diagnosis is generally done after surgery. During endoscopy, a submucosal mass similar to smooth muscle is generally found. Computed tomography (CT) shows an enhanced pattern with contrast. Histological studies show a low mitotic rate, positive staining for actin and calponin, and negative for c-kit, chromogranin and common leucocyte antigen, which differentiate GIST, carcinoids, and lymphoma respectively, the three differential diagnoses. The management is surgical resection for final diagnosis and treatment [5].

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Competing interests: None

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References

1 *Agawa H, Matsushita M, Nishio A, Takakuwa H.* Gastric glomus tumor. Gastrointest Endosc 2002; 56: 903
2 *Maehara Lde S, Ohe EM, Enokihara MY et al.* Diagnosis of glomus tumor by nail bed and matrix dermoscopy. An Bras Dermatol 2010; 85: 236 – 238
3 *Fabiani P, Benizri E, Michiels JF et al.* A new case of gastric glomangioma. Gastroenterol Clin Biol 1993; 17: 974 – 975
4 *Alempijevic T, Knezevic S, Knezevic D et al.* Gastric multicentric glomangioma: a case report of this rare cause of abdominal pain. Med Sci Monit 2008; 14: CS5 – CS8
5 *Lorber J, Kalish J, Farraye FA et al.* Glomus tumor of the gastric antrum: case report. Curr Surg 2005; 62: 436 – 438

Bibliography

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