



## IMAGE OF THE MONTH

### Gastric glomus tumor: Endoscopy, MD-CT and pathologic features

### Tumour glómico gástrico: endoscopia, MD-CT y características anatomopatológicas

Umberto G. Rossi<sup>a,\*</sup>, Mariangela Rutigliani<sup>b</sup>, Francesco Paparo<sup>c</sup>, Marco Filauro<sup>d</sup>

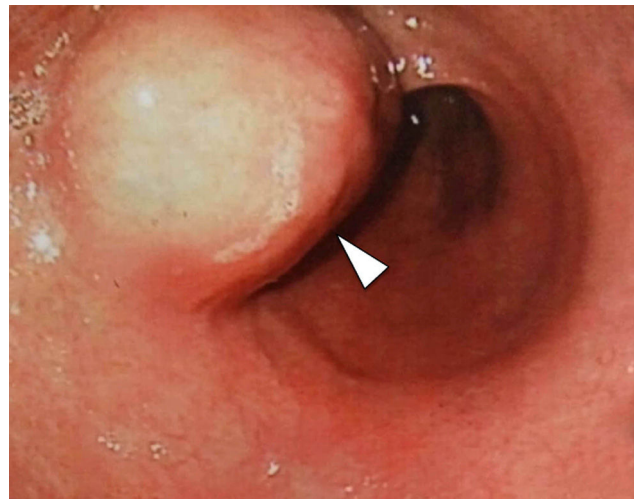
<sup>a</sup> Department of Radiological Area – Interventional Radiology Unit, E.O. Galliera Hospital, Mura delle Cappuccine 14, 16128 Genova, Italy

<sup>b</sup> Department of Laboratory and Service – Histological and Anatomical Pathology Unit, E.O. Galliera Hospital, Mura delle Cappuccine 14, 16128 Genova, Italy

<sup>c</sup> Department of Radiological Area – Radiology Unit, E.O. Galliera Hospital, Mura delle Cappuccine 14, 16128 Genova, Italy

<sup>d</sup> Department of Abdominal Surgery – General and Hepatobiliopancreatic Surgery Unit, E.O. Galliera Hospital, Mura delle Cappuccine 14, 16128 Genova, Italy

A 49-year-old man has been evaluated in our hospital for intermittent increasing epigastric discomfort over a 6-month period. No nausea or vomiting was noted. At the time of his presentation hematological examinations were within the normal limits. Gastro-duodenal endoscopy showed a round protruding lesion at the level of the gastric antrum (Fig. 1). Abdominal multi-detector computed tomography (MD-CT) revealed at the level of the gastric antrum an intraluminal subepithelial mass, with high vascular enhancement and 4-cm in diameter (Figs. 2 and 3). No other abdominal nodules or lymph nodes were noted. Patient underwent wedge resection. Histopathological evaluation demonstrated negative margin of the resection, and the mass was characterized by smooth muscle fibers, a jalinic stroma, a conspicuous vascular network and negative for cytokeratin and CD56 determining the diagnosis of a glomus tumor (Fig. 4). Given the benign diagnosis, the patient has been enrolled in clinical, laboratory and imaging follow-up program.



**Figure 1** Gastro-duodenal endoscopy demonstrates the presence a round, well defined, protruding lesion with an overlying normal mucosa (arrowhead) at the level of the gastric antrum.

\* Corresponding author.

E-mail addresses: [urossi76@hotmail.com](mailto:urossi76@hotmail.com), [umberto.rossi@galliera.it](mailto:umberto.rossi@galliera.it) (U.G. Rossi).

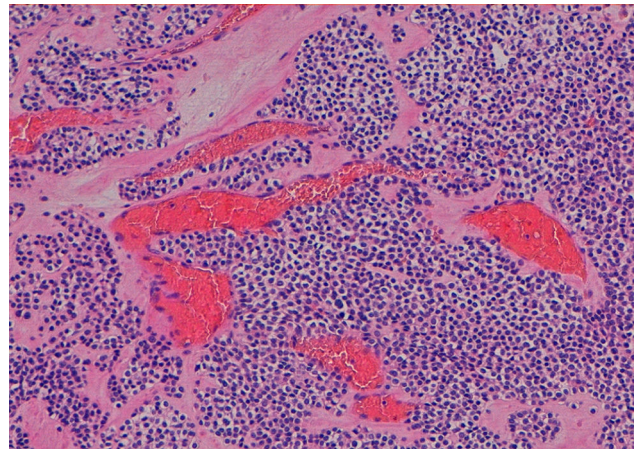


**Figure 2** Contrast-enhanced multi-detector computed tomography coronal MPR reconstruction that shows, at the gastric (\*) antrum level, the presence of a solitary intraluminal subepithelial mass, well defined (arrowhead), with high vascular enhancement and 4-cm in diameter.



**Figure 3** Contrast-enhanced multi-detector computed tomography coronal VRT reconstruction better highlights the high vascular enhancement of the mass (arrowhead) with arterial blood supply from gastroduodenal artery.

Gastric glomus tumor is a rare benign mesenchymal high vascular tumors arising from the glomus bodies.<sup>1,2</sup> It constitutes about 1% of all benign gastric tumor.<sup>1-3</sup> Typically, they are located in gastric antrum, as solitary, intraluminal subepithelial mass that are generally smaller than 3-cm in diameter.<sup>1-3</sup> Gastrointestinal



**Figure 4** Histopathological evaluation that shows hyperplastic smooth muscle fibers around dilated thin-walled vascular network (magnification 100×).

bleeding (hematemesis/melena) and epigastric discomfort are the most two common initial symptoms/signs.<sup>1-3</sup> Gastro-duodenal endoscopy, endoscopic ultrasound, MD-CT and biopsy are generally the diagnostic procedure before surgery therapeutic treatment.<sup>2</sup>

### Authors' contributions

Umberto G. Rossi, MD, EBIR: write paper, diagnosis, images.  
 Mariangela Rutigliani, MD: review paper, diagnosis, image.  
 Francesco Paparo, MD: review paper, diagnosis.  
 Marco Filauro, MD: contribution to write paper, treatment.

### Funding

The authors declare that there is no financing plan.

### Conflict of interest

The authors declare that there is no conflict of interest.

### References

1. Lee HW, Lee JJ, Yang DH, Lee BH. A clinicopathologic study of glomus tumor of the stomach. *J Clin Gastroenterol.* 2006;40:717–20.
2. Lee NK, Kim S, Kim GH, Jeon TY, Kim DH, Jang HJ, et al. Hypervascular subepithelial gastrointestinal masses: CT-pathologic correlation. *Radiographics.* 2010;30:1915–34.
3. Arias-Romano AJ, Puya-Gamarro M, Rodríguez-Lobalzo SA, Bercedo-Martínez J. Gastric glomus tumour: a challenge in the preoperative diagnosis of stomach subepithelial lesions. *Gastroenterol Hepatol.* 2018;41:670–1.