

Objectives

- We showcase the diagnostic workup in the evaluation of gastric tumors, focusing on Gastric Glomus Tumors (GGTs).
- We emphasize the need for Endoscopic ultrasound (EUS) to establish diagnosis of GGT and its differentiation from gastrointestinal stromal tumors (GIST) or gastric carcinoid tumors.

Introduction

- Gastric glomus tumors are benign mesenchymal neoplasms that originate from the submucosal layer of the stomach, predominantly the antrum.
- GGTs represent up to 1% of all gastric tumors [1].
- Most patients with GGTs present with vague abdominal pain, gastrointestinal bleeding, or perforation [2].
- GGT is detected incidentally during esophagogastroduodenoscopy (EGD) in a proportion of asymptomatic patients.

Case Description

- An 80-year-old man presented with abdominal discomfort without weight loss, changes in appetite, melena, or hematochezia.
- He was incidentally found to have a gastric antral nodule on EGD (Figure 1A).
- CT of the abdomen and pelvis was obtained (Figure 1B).
- EGD with biopsy demonstrated benign patchy, moderately erythematous gastric antral mucosa and a 1.5 cm subepithelial lesion 10 cm from the gastric antrum along the greater curvature.

Images

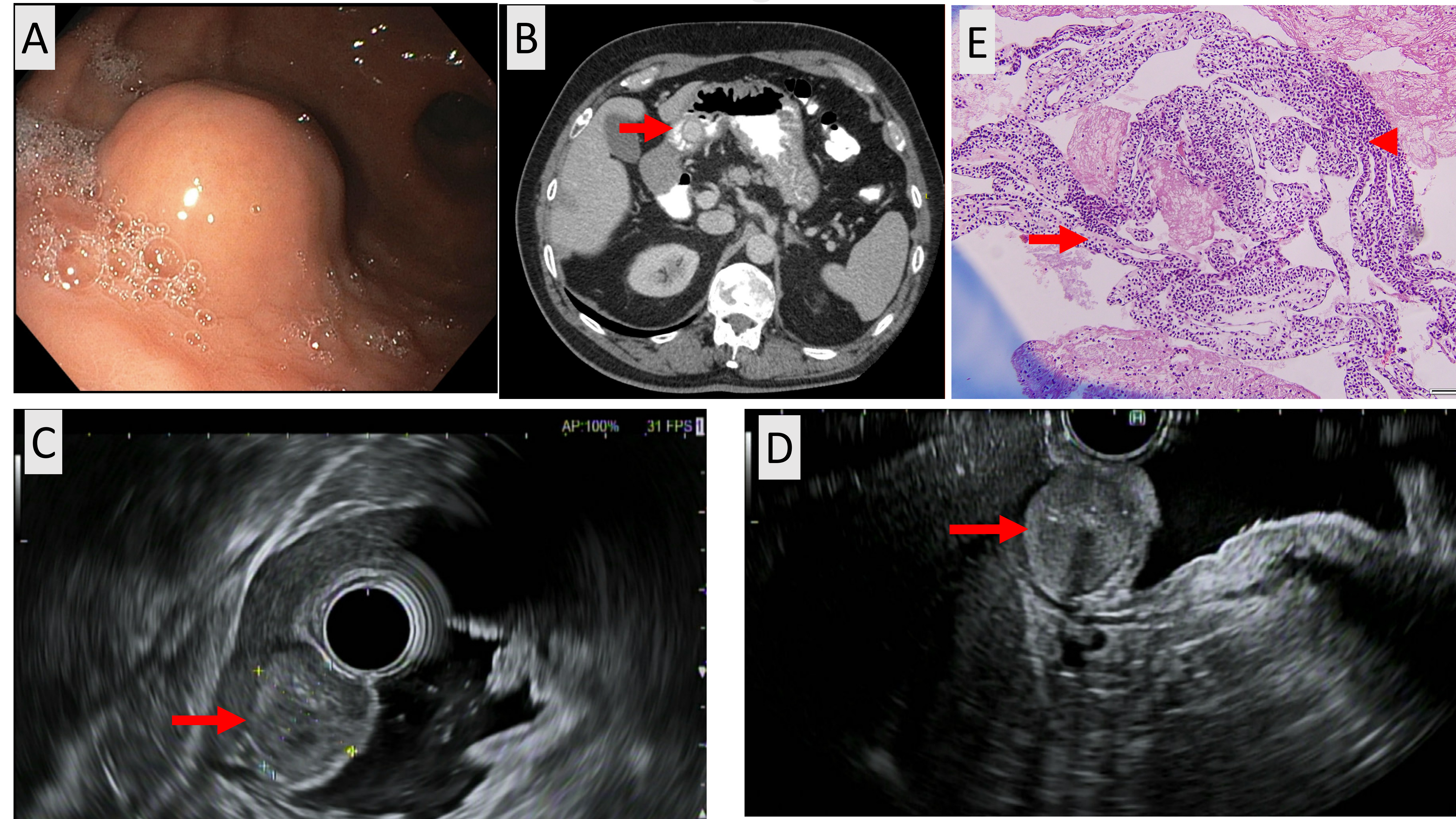


Figure 1: (A) Upper endoscopy of a 15mm subepithelial lesion along the gastric greater curvature. (B) Abdominal CT scan with contrast (axial view) showing a 2.1cm x 1.7cm intraluminal mural mass projecting into the lumen of the distal stomach without gastric outlet obstruction (red arrow). (C, D) EUS demonstrating a subepithelial 1.56cm x 1.28cm isoechoic, homogenous lesion (red arrow) with small calcifications on the gastric greater curvature abutting the left hepatic lobe. (E) Histology of FNB with H&E staining (10x) shows lobules and cords of epithelioid cells containing predominantly clear to eosinophilic granular cytoplasm and oval nuclei, invested in a loose fibrous stroma (red arrows).

Diagnostic Tests and Clinical Course

- EUS revealed a subepithelial 1.56 x 1.28 cm isoechoic, homogenous lesion with small calcifications on the gastric greater curvature abutting the left hepatic lobe (Figure 1C, 1D).
- Immunohistochemical staining of the fine needle biopsy (FNB) specimen of the gastric nodule was diffusely positive for neoplastic cells, smooth muscle actin, vimentin, patchy muscle specific actin, and focal synaptophysin.

Case Description

- Cell staining was negative for pancytokeratin, desmin, CD117, DOG1, S100, CK7, CDX-2, Pax-8, HepPar1 and CD34. There were no atypical cytologic features or mitoses consistent with GGT.
- A shared decision was made with the patient to proceed with EUS surveillance of the GGT rather than surgical resection, considering his advanced age and lack of symptoms.

Discussion/Conclusions

- EUS is essential in the evaluation of GGT to establish the diagnosis and to differentiate it from other common gastric tumor such as GISTs, and neuroendocrine tumors that share similar findings on radiological imaging [3].
- One percent of all glomus tumors are malignant.
- Features suggestive of malignancy include deep-seated lesions of size > 2.0cm, atypical mitotic figures, and moderate-to-high nuclear grade [4].
- Surgical resection of GGT with partial gastrectomy is treatment of choice [5].
- For asymptomatic patients with GGT or those with resolution of symptoms, careful surveillance may be a reasonable option, especially in older patients with poor surgical candidacy.
- Currently, there are no consensus guidelines for the surveillance recommendation of GGT who are asymptomatic or poor candidates for surgical resection.
- Further prospective studies are required to determine surveillance duration in non-surgical candidates.

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