A case of a pyloric gland adenoma presenting as an intramural mass

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Introduction

- Pyloric gland adenomas (PGA) are a subset of gastric adenomas with malignant potential [1-3].
- They are often characterized on endoscopy as an intraluminal polypoid, dome-shaped, ulcerating, or fungating mass [3-7].
- Due to their risk of carcinogenesis, it is important to recognize and resect lesions that are suspicious for PGAs for further pathological examination to confirm the diagnosis [7,8].
- Although PGAs are characterized as mucosal or submucosal lesions, this case reviews an atypical presentation of a PGA that presents intramurally in the stomach without the common features typically visualized on direct endoscopy.

Case Description/Methods

- A 65-year-old female with history of gastroesophageal reflux disease (GERD) presented with a one-year history of globus sensation described as irritation in her throat without associated weight loss, dysphagia, or odynophagia. Symptoms were refractory to proton pump inhibitors and histamine-2 (H2) receptor blockers.
- Upon initial endoscopic evaluation, a friable 3-centimeter region of localized nodular mucosa without ulceration was found on the greater curvature of the stomach and biopsied (Figure 1A).
- Initial pathology report noted epithelial proliferation within gastric mucosa, but malignancy was not excluded.
- Follow-up computed tomography (CT) scan showed a 1.8 x 1.3 x 1.1-centimeter intramural lesion within the greater curvature at the level of the gastric fundus (Figure 1B).
- Upon repeat endoscopy, re-biopsy of the lesion with snare resection for more robust tissue sampling confirmed an intramucosal adenocarcinoma arising in a pyloric gland adenoma (Figure 1C).
- The patient subsequently underwent a subtotal gastrectomy with Roux-en-Y gastrojejunostomy and has begun receiving adjuvant chemotherapy with folinic acid, fluorouracil and oxaliplatin (FOLFOX).

Images

Gross Endoscopic Examination

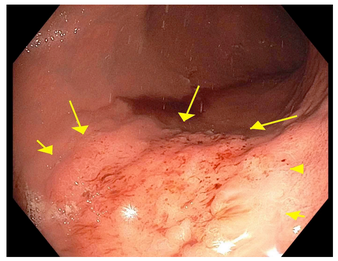
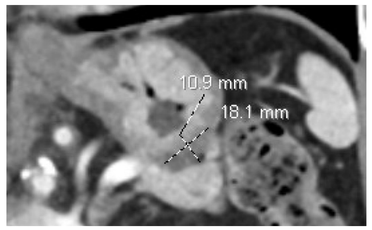


Figure 1A. Friable 3-centimeter region of localized nodular mucosa without ulceration noted on EGD at the greater curvature of the stomach. ***Abbreviations: EGD*** *(esophagogastroduodenoscopy)*

Computed Tomographic Examination

Figure 1B. Intramural lesion within greater curvature at level of gastric fundus measuring 1.8 x 1.3 x 1.1 centimeter on CT scan. ***Abbreviations: CT*** *(computed tomography)*



Histopathological Examination

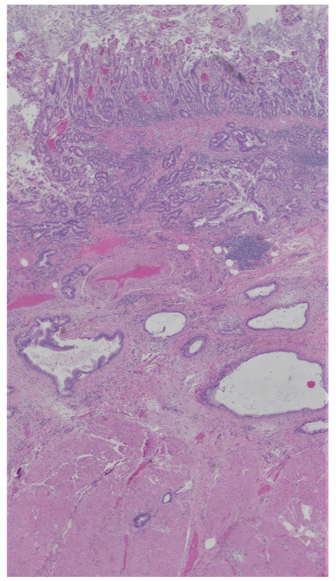


Figure 1C.
Photomicrograph of histologic examination with H&E stain (200x) displaying a section of the gastric tumor showing a PGA (top) with invasive carcinoma extending through the gastric wall (bottom). ***Abbreviations: PGA*** *(pyloric gland adenoma)* ***H&E*** *(hematoxylin and eosin)*

Discussion

- PGAs can evolve into adenocarcinoma through low-grade intraepithelial neoplasia to high-grade intraepithelial neoplasia, with a reported carcinogenesis rate of 12–47% [3,4].
- Diagnosis can be difficult as there are no specific clinical manifestations, although there is an association between PGAs and conditions that result in pyloric metaplasia such as autoimmune gastritis (AIG) [1-3].
- This case demonstrates the variability in presentation of PGAs while also highlighting the carcinogenic potential to evolve into an adenocarcinoma.
- Unlike typical PGAs that are mucosal or submucosal, this case describes an intramural PGA, which to our knowledge, has yet to be reported in the literature.
- Although their incidence is rare, PGAs should be considered on the differential for atypical lesions visualized on endoscopy due to their malignant potential.

Conclusion

- At 6 months status post initiation of FOLFOX therapy, patient's repeat CT scan showed stable postsurgical changes without evidence of local recurrence or metastatic disease in the chest, abdomen, or pelvis.

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