



## Ectopic Pancreas in Stomach Presenting as a Gastrointestinal Stromal Tumor (GIST)

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### Introduction

The patient was a 43-year-old man with no significant medical history who presented with 15-year history of heartburn and 1-year history of epigastric fullness, bloating, and occasional post-meal nausea and vomiting. On exam, his vital signs, respiratory, and cardiac exam were normal and he had soft, non-tender abdomen with no palpable mass.

He underwent endoscopic exam which revealed irregular Z-line with less than 5 mm break, two short tongues of red mucosa over esophagogastric junction, 3-cm hiatal hernia, a round 3-cm submucosal lesion in upper part of the corpus, and a 1.5-cm prepyloric diverticulum (Figure 1). The result of biopsy was consistent with gastric mucosa including

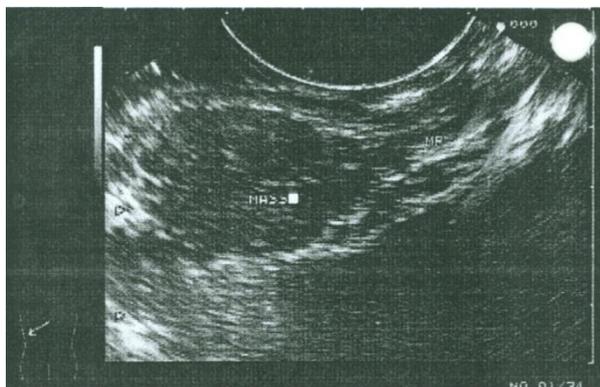
gland and lamina propria with negative *Helicobacter pylori* (HP).



**Figure 1.** Endoscopic view of antrum

Endoscopic ultrasound (EUS) was also performed which showed polypoid lesion

(24 × 12 mm) in the lesser curvature of gastric body originating from muscularis propria. The EUS features of the lesion were suggestive for gastrointestinal stromal tumor (GIST) (Figure 2).



**Figure 2.** Endosonography showing the mass

Ultrasonography and multiple detectors computed tomography (CT) were unremarkable. The surgery performed and confirmed earlier diagnosis found in the gastroscopy. Laparoscopic wedge resection was performed maintaining a margin of healthy gastric wall. Postoperative material with suspected gastrointestinal stromal tumor was sent for histopathological examination. Microscopic examination of the lesion identified ectopic pancreas and showed pancreatic tissue with ducts, acini, and islets distributed from submucosa to serosa.

Pancreatic rest (also known as ectopic pancreas, aberrant pancreas, and heterotopic pancreas) has no contact with the normal pancreas, and possesses its own ductal system and blood supply (1). The incidence of this submucosal mass varies. It is usually found at autopsy or as an incidental finding at laparotomy. The prevalence of HP at autopsy is between 0.6% and 13.7% (2, 3).

Ectopic pancreatic tissue is most frequently located in the gastric antrum along the greater curvature; although it can occur anywhere in the gastrointestinal tract, pelvis, liver, biliary tract, spleen, omentum, mesentery, fallopian tube, Meckel's diverticulum, mediastinum, and lung (2). The

symptoms of this entity depend upon the anatomical location and are nonspecific. The diagnosis of ectopic pancreas is difficult despite the development of modern diagnostic methods such as computerized tomography, ultrasonography, and endoscopic ultrasonography, because they are not very specific in the diagnosis. Therefore, it remains a diagnostic challenge (4, 5).

Endoscopic examination has become useful adjunct in the evaluation of submucosal lesions. The endoscopic picture of heterotopic pancreas usually reveals broad-based, umbilicated, firm, slightly irregular submucosal lesion. Although positive biopsy establishes the diagnosis, in most cases, biopsies are superficial and therefore non-diagnostic. The main differential diagnosis for heterotopic pancreatic tissue includes gastrointestinal stromal tumors, gastrointestinal autonomic nerve tumor, gastric carcinoids, lymphoma, and gastric carcinoma which can be misinterpreted on imaging studies or endoscopic examinations (5).

There are predictive features on CT such as prominently enhancing overlying mucosa, location, growth pattern, and lesion border which help in the differentiation of HP tissue from GIST and leiomyoma. Because GISTs are by far the most common gastric submucosal tumors, HP can frequently be mistaken for GIST at endoscopy as happened in our case. Therefore symptomatic patients require surgical exploration in order to obtain a definitive diagnosis and to exclude malignancy. Local excision is adequate for benign looking lesions (6). The management of asymptomatic, incidentally detected HP remains a debate; although some evidence suggested in resection of these asymptomatic cases to prevent future complications (5).

### Conflict of Interests

Authors have no conflict of interests.

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