



## Gastric outlet obstruction caused by heterotopic pancreas: A case report and a quick review

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### Abstract

A 46-year-old Chinese woman presented with nausea, recurrent vomiting, and abdominal pain. Gastroduodenal endoscopic examination revealed an oval-shaped submucosal tumor at the prepyloric area on the posterior wall of the stomach. A degenerated gastrointestinal stromal tumor was suspected. Distal gastrectomy was performed and a histological diagnosis of heterotopic pancreas (HPs) was confirmed. The patient had an uneventful postoperative course and was discharged 7 d after operation. The patient remains healthy and symptom-free in the follow-up of 6 mo. This is a report of a case of gastric outlet obstruction resulting from pancreatic heterotopia in the gastric antrum in an adult woman.

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**Key words:** Gastric; Outlet obstruction; Heterotopic pancreas

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### INTRODUCTION

Heterotopic pancreas (HPs), a rare entity, is defined as the presence of pancreatic tissue outside its normal localization and without anatomic and vascular continuity with the pancreas itself. Other terms such as pancreatic rest, ectopic, aberrant, or accessory pancreas are also used<sup>[1]</sup>. It can occur anywhere in the gastrointestinal (GI) tract. The etiology of HP is unknown. In most cases, HP does not cause symptoms, but it can occasionally present as nausea, vomiting and abdominal pain. Peptic ulceration and upper GI bleeding are rare presentations, as are malignant degeneration, pancreatitis and pseudocysts<sup>[2]</sup>. HP tissue is found in persons of all ages and slightly more often in man<sup>[3]</sup>. HP has been reported as the cause of gastric outlet obstruction in infant<sup>[4]</sup> or child<sup>[5]</sup>. This is a report of a case of gastric outlet obstruction resulting from pancreatic heterotopias in the gastric antrum in an adult woman.

### CASE REPORT

A 46-year-old woman was admitted to our hospital with a 5-year history of chronic epigastric pain and recurrent vomiting after meal. The patient had an unremarkable medical history. The physical examination was normal. She was afebrile with stable vital signs. The abdomen was soft and nontender with no palpable mass and normal bowel sounds. Stools tested negative for occult blood. Hematologic examination and blood chemical findings were normal as well.

Gastroscopy showed antritis and a submucosal lesion in the prepyloric posterior gastric wall (Figure 1). Proton pump inhibitors were started but did not relieve the symptoms. A computer tomography scan showed



common symptoms were bleeding mimicking jejunal tumor<sup>[9]</sup>, pancreatitis, and malignant transformation<sup>[10-12]</sup>.

Macroscopically, the tissue often localized in the submucosa, but may also be found in the muscularis mucosa, subserously or in the serosa. In some cases, it stretches through several or all of these layers<sup>[3]</sup>. Although imaging studies such as computer tomography (CT), radiographic contrast studies, and upper endoscopy are of assistance in the initial assessment of patients, the preoperative diagnosis of pancreatic heterotopia is often difficult.

Ormarsson *et al* reported that all patients examined with CT were inconclusive<sup>[1]</sup>. Cho *et al* also reported CT findings interpreted as HP in only two cases (17%)<sup>[13]</sup>. A diagnosis can occasionally be made on the basis of endoscopic biopsies. Histological examinations are inconclusive in about 50% of the cases because normal gastric mucosa covers the lesions<sup>[14]</sup>. Only in 4 out of 10 patients did a biopsy lead to the correct diagnosis<sup>[1]</sup>. In most cases, however, the diagnosis is confirmed only by surgical resection.

Endoscopic ultrasonography (EUS) is widely used to evaluate submucosal lesions in the upper GI tract<sup>[15]</sup>. In a retrospective study of postresection histologic features compared with preoperative EUS findings in 10 patients with gastric HP, there was a close correlation between histology and EUS findings. EUS-guided aspiration has been reported to be helpful in diagnosis of HP<sup>[16]</sup>. If endoscopic resection is considered, EUS is also extremely useful for pre-excision assessment<sup>[17]</sup>.

Most patients with HP are asymptomatic and require no treatment. The lesion is usually discovered incidentally. There was no correlation between the histological type of HP and the presence of symptoms<sup>[1,18]</sup>. Surgery is frequently needed to make a definitive diagnosis and to plan further treatment because the differential diagnosis of pancreatic rests includes leiomyoma, lymphoma, carcinoid tumors, and other malignancies<sup>[19]</sup>.

If HP is discovered as an incidental finding, local excision is recommended. When HP results in symptoms, the lesion should be resected<sup>[20,21]</sup>. Increasingly, some are removed endoscopically with satisfactory postoperative results. Endoscopic excision can be considered in select cases depending on the size and location of the mass, especially for treating the benign lesions of HP.

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