Heterotopic Pancreas Involving Stomach and Duodenum

Shubhangi V Agale¹, Vinayak G Agale², Rahul R Zode³, Sumit Grover⁴, Shashank Joshi⁵

Abstract
Heterotopic pancreas is a rare condition with an estimated incidence of 1 per 500 upper abdominal operations. It is often an incidental finding and is asymptomatic. Heterotopic pancreas is found at different sites in gastrointestinal tract.

A 75 year old female presented with epigastric pain, vomiting and constipation. Clinical diagnosis of malignancy was based on the findings of USG, CT scan and endoscopy.

Introduction
Heterotopic pancreas (HP) is defined as the presence of pancreatic tissue lacking anatomical and vascular continuity with the main body of the pancreas.¹ It has a reported incidence of 1%-14% on necropsy examination and has been observed in 1 in 500 upper abdominal operations.¹ ² HP is often an incidental finding and its derivation is explained on the basis of embryology.¹

We report an unusual case of heterotopic pancreas misdiagnosed as malignancy in a 75 year old female.

Case Report
A 75 year old female was hospitalized for pain in epigastric region, vomiting and constipation since 3 months. She was non-diabetic, non-hypertensive without any significant illness in the past.

PA examination revealed a firm, immobile, diffuse lump in the epigastric region. Liver and spleen was not palpable. Her cardiovascular, respiratory and central nervous system examination findings were normal.

Blood count, liver function and kidney function tests were normal.

USG abdomen showed grossly distented stomach with thickening of pylorus and first part of duodenum, with enlargement of peripancreatic and paraaortic lymph nodes, the largest being 1.2 cm in diameter.

CT-scan showed an illdefined enlarging soft tissue mass involving pylorus and first part of duodenum along with enlarged perigastric and peripancreatic nodes.

On endoscopy a large submucosal mass with mucosal ulceration suggestive of malignancy (Figure 1) was seen.

The endoscopic biopsy showed presence of pancreatic tissue, comprised of exocrine pancreas and cystically dilated ducts surrounded by connective tissue, in the submucosa of the stomach (Figure 2) and just beneath the mucosa of duodenum (Figure 3).

Discussion
The first reported case of heterotopic pancreas was described by Jean Schultz in 1729 and Klob provided histological confirmation of HP in 1859.¹

Heterotopic Pancreas can present at any age but most often occurs in the fifth and sixth decades of life, and have male predominance.³ It often remains asymptomatic throughout the life but may cause symptoms including epigastric pain, upper gastrointestinal bleed, gastric ulceration, gastric outlet obstruction and pancreatitis.¹ ⁶ Our patient was 75 years female who presented with epigastric pain, lump and gastric outlet obstruction.

The usual location of heterotopic pancreas is in the stomach in 25% -38% of cases, duodenum in 17% -21% and jejunum in 15% -21% of cases.¹ ⁶ The lesion was located in the pyloric part of stomach and first part of duodenum in this case. The classic endoscopic appearance is that of a small, well circumscribed submucosal protrusion with a normal overlying mucosa. The characteristic umbilation is not present in all cases.⁵ ⁶ Sometimes it appears as a mass indistinguishable from adenomatous polyp or a polypoid carcinoma;⁵ which was the case in this patient on endoscopy.

The clinical diagnosis of malignancy was rendered in this case based on the combined findings of USG, CT scan and endoscopy, of a large mass involving the pylorus and first part of duodenum with mucosal ulceration and perigastric and peripancreatic lymphadenopathy.

Histologically the lesions are of three categories; the most common (type-1) is pancreatic tissue comprised of ducts, acini and islets. In the second group (type-2) there are few acini and many ducts, while in the last category (type 3) only ducts are seen. Smooth muscle is present throughout the lesions.³ The endoscopic biopsy revealed heterotopic pancreas of type 2
category which is not very common.

Clinical significance of HP lies in the fact that if it is confused with number of benign and malignant gastric wall tumours and any pathologic process that may affect the normal pancreas may develop in the heterotopic pancreas as well. This includes acute and chronic pancreatitis, cyst formation, cystic fibrosis and benign and malignant neoplasms.\textsuperscript{5,6} The symptomatic lesions require local excision and if heterotopic pancreas is found incidentally during surgery for another condition, resection should be considered because of the risk of later clinical problems.\textsuperscript{2-6}

**Conclusion**

Although uncommon heterotopic pancreas may be responsible for gastrointestinal symptoms and endoscopic appearance may be confused with malignancy.

---

**References**