Heterotopic pancreas: An unusual cause of epigastric pain

Le pancréas aberrant : une cause inhabituelle d’épigastralgies

Heterotopic pancreas (HP) represents a congenital anomaly where aberrant pancreatic tissue is without ductal or vascular continuity to the gland. The true incidence is unknown as most patients are asymptomatic and the condition is usually an incidental finding at autopsy or laparotomy. HP undergoes changes similar to the native pancreatic gland, including chronic inflammation, fibrosis, and even the development of pancreatic adenocarcinoma. Thus, this rare diagnosis should be considered in front of atypical symptoms associated with a typical endoscopic appearance.

We report the case of a 16-year-old female who presented with recurrent epigastric pain. Endoscopy revealed a sessile mass in the antrum, which showed heterotopic pancreatic tissue in the submucosa on histopathology.

Case report

A 16-year-old female presented with recurrent epigastric pain, vomiting and repetitive hypoglycemic symptoms of two months duration. Her past medical history revealed insulin-dependent diabetes mellitus. A complete blood count and routine biochemical investigations, including serum lipase, were normal except the presence of hypoglycemia. Physical examination including abdominal examination was unremarkable.

Endoscopy revealed an umbilicated prepyloric antral mass with apparently normal covering mucosa, along the greater curvature, measuring 15 mm (Fig. 1). The esophagus and duodenum were unremarkable. The mucosa overlying the mass was biopsied and showed chronic gastritis with no submucosal tissue present. Endoscopic ultrasonography (EUS) showed a hypoechoic heterogeneous antral lesion originating from the submucosal layer measuring 15 × 15 mm. Abdominal computer tomography (CT) scan showed a 13-mm oval lesion in the gastric antral wall, with homogeneous early enhancement. Pancreas appeared normal. CT and EUS failed to demonstrate any peritumoral adenopathy.

The patient underwent a laparoscopic resection and histological examination of the mass revealed pancreatic acini, ducts, and foci of Langerhans islets consistent with HP. There were no complications and the patient’s abdominal pain resolved postoperatively.

Discussion

HP is defined as ectopic pancreatic tissue, without anatomical or vascular continuity with the normal pancreas [1]. It is a rare condition probably resulting from fetal migration of pancreatic cells and penetration of immature digestive mucosa inside the submucosa followed by its pancreatic metaplasia [2]. It can occur anywhere in the gastrointestinal tract but the usual locations are the stomach, duodenum and jejunum. It is most often discovered in the fifth and sixth decades of life, and has a male preponderance [3]. Pediatric cases remain rare and their incidence varies from 6 to 16% in HP series [4].

HP is usually asymptomatic but may become clinically evident when complicated by inflammation, bleeding, obstruction or malignant transformation [2]. Pain is the most common symptom and is probably caused by HP secretions, resulting in inflammation or chemical irritation. Lesions, which can affect the pancreas, may develop in the ectopic tissue, such as pancreatitis, pseudocysts, abscesses, exocrine and endocrine neoplasms and occasionally ductal adenocarcinoma [2].

Classic endoscopic appearance is a small submucosal protrusion covered with normal mucosa and characteristic central umbilication. Pinch mucosal biopsies are often normal and imaging findings are not specific. Preoperative diagnosis could be made by EUS with fine needle aspiration cytology but remains often difficult and only assessed by histological evaluation following resection [5]. Endoscopic or surgical resection is indicated in symptomatic cases [2,6]. Management of asymptomatic histologically verified HP is under debate.

Heterotopic pancreas should be considered in a patient with chronic abdominal pain and gastric submucosal lesion.
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Conflict of interest statement

No conflict of interest.

References


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