Jejunal ectopic pancreas masquerading gastrointestinal stromal tumor

Authors: Agastya Patel, Andrzej Hellmann, Piotr Spychalski, Michał Szymański, Maciej Śledziński

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Authors
Agastya Patel\textsuperscript{1}, Andrzej Hellmann\textsuperscript{1}, Piotr Spychalski\textsuperscript{1}, Michał Szymański\textsuperscript{1}, Maciej Śledziński\textsuperscript{2}

\textsuperscript{1}Department of General, Endocrine and Transplant Surgery, Medical University of Gdansk, Gdansk, Poland
\textsuperscript{2}Department of Emergency Medicine, Medical University of Gdańsk, Gdańsk, Poland

Short Title
Ectopic Pancreas masquerading gastrointestinal stromal tumor.

Corresponding Author
Agastya Patel, Department of General, Endocrine and Transplant Surgery, Medical University of Gdańsk, ul. Smoluchowskiego 17, 80-214 Gdańsk, Poland. Phone: +48583493022, Email: agastyap24@gmail.com

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Main Text

A 49-year-old man was referred to our hospital after a mass adjoining the first jejunal loop was incidentally discovered in a control CT (Figure 1A, 1B) scan post pulmonary embolism treatment. The patient history and physical examination was insignificant for any signs or symptoms. The preoperative CT scan revealed a round, endoluminal mass with homogenous enhancement of the overlying mucosa [1] (Figure 1B). After a multi-specialty discussion, an initial suspicion of gastrointestinal stromal tumor (GIST) was made and the patient was referred for surgical intervention. The mass was successfully resected laparoscopically (Figure 1C). The specimen was sent for histopathological examination that revealed a well differentiated ectopic pancreas (type 1, according to Fuentes classification), with normal intestinal wall, extending into the submucosal and muscularis propria of the jejunum (Figure 1D, 1E). The post-operative period was uneventful. On subsequent follow-up visit, the patient was doing well.

Ectopic pancreas, a rare developmental anomaly, in most cases remains asymptomatic but rarely complication such as hemorrhage, obstruction, ulceration, or malignant transformation may result in a symptomatic presentation [2]. About 70% of ectopic pancreatic lesions are found in the stomach and duodenum [2]. The differential diagnosis for ectopic pancreas must include - GIST, lymphoma, carcinoid tumors, and desmoid tumor [3]. Kim et al. demonstrated that certain findings on CT imaging assists in differentiating ectopic pancreas from other submucosal gastrointestinal tumors. Ectopic pancreas usually presents as endoluminal, flat or ovoid masses with irregular borders and prominent enhancement of the overlying mucosa on CT imaging [1]. However, even with such diagnostic criteria, definitive diagnosis of ectopic pancreas can only be made on the basis of histopathology.
GIST are the most common mesenchymal tumors of the gastrointestinal (GI) tract [4]. They are slow growing tumors, which most commonly presents similarly to ectopic pancreas – as incidental findings in asymptomatic patients. They may also produce vague symptoms such as abdominal pain, nausea, anorexia, vomiting and fever. Malignant potential of GIST depends on the size of the tumor so, any lesions which measure ≥2 cm and are suspected for GIST must be managed with surgical resection [5]. In the present case, patient had 4 cm lesion and therefore a surgical resection was necessary.

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Figure 1. **A** – 3-dimensional reconstruction of the upper abdomen showing the pancreas (blue arrow) and the ectopic pancreatic mass in the jejunum (green arrow); **B** – a computed tomography scan of the ectopic pancreatic mass in the jejunum showing an endoluminal growth with prominent enhancement of the overlying mucosa (green arrow); **C** – Intraoperative image of the extra-luminal ectopic pancreas seen via laparoscopic camera (green arrow); **D** - a histopathological image of ectopic pancreatic mass at 2x magnification (Black arrowhead indicates normal intestinal tissue, Black arrow indicates ectopic pancreatic tissue, Red circle indicates islet of Langerhans); **E** - a histopathological image of ectopic pancreatic mass at 10x magnification. (Yellow circles indicate exocrine pancreatic acini; Green circles indicate pancreatic ducts).