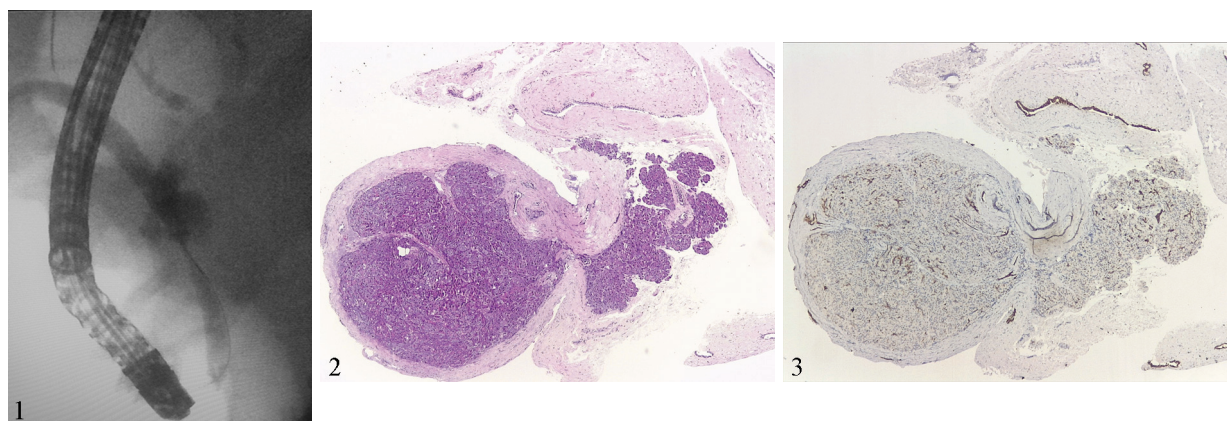


The Strange Case of A Common Bile Duct Obstruction: Pancreatic Heterotopia

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A 79-year-old female patient with a prior cholecystectomy was examined for jaundice. The cholangiogram revealed a 20-30 mm long stenosis of choledochus with important upstream dilation of biliary ducts (Fig. 1). Biopsies were taken for suspicion of malignancy.

One biopsy fragment showed a typical biliary-type covering epithelium and a nodular lesion in the subjacent tissue composed of pancreatic acini and ducts, with rare neuroendocrine cells (Fig. 2, HE stain, 25x, low power view). The CK7 immunohistochemistry showed the typical expression pattern for normal pancreas (Fig. 3) and chromogranin was positive in the neuroendocrine cells. These findings were consistent with type I pancreatic heterotopia in the choledochus.

Pancreatic heterotopia is defined as a pancreatic tissue anatomically separate from the main pancreatic gland with no vascular or ductal connection to it. Four types have been described in the literature according to their components: type I (acini, ducts, islets), type II (only ducts), type III (only acini), and type IV (only islet cells; very rare) [1, 2]. It commonly affects middle-aged women and is often discovered incidentally [1]. The common site is the stomach, but may occur throughout the gastrointestinal tract and in the liver, biliary tree, gallbladder [1, 3]. To our knowledge, less than 10 cases involving the choledochus have been reported so far [4, 5].

Heterotopic pancreas may be asymptomatic or, depending on the size and location, may present with symptoms (e.g., abdominal pain, gastrointestinal bleeding). When located in the bile duct, patients may experience symptoms of biliary obstruction and can mimic malignancy, which represents the main differential diagnosis [1, 4]. Any pathology that involves the native pancreas can also occur in the heterotopic

counterpart (e.g., pancreatitis, neoplastic lesions), malignant transformation being extremely rare [4, 6].

Despite its rarity, one should consider the possibility of this diagnosis, aiding in differentiating it from cancer and thus, avoiding unnecessary treatment/surgery.

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REFERENCES

- Farah A, Mansour S, Khuri S. Gastrointestinal Tract Heterotopic Pancreas: Asymptomatic Pathology? *Gastroenterology Res* 2021;14:45-47. doi:[10.14740/gr1363](https://doi.org/10.14740/gr1363)
- Hammock L, Jorda M. Gastric endocrine pancreatic heterotopia. *Arch Pathol Lab Med* 2002;126:464-467. doi:[10.5858/2002-126-0464-GEPI](https://doi.org/10.5858/2002-126-0464-GEPI)
- Sharma SP, Sohail SK, Makkawi S, Abdalla E. Heterotopic pancreatic tissue in the gallbladder. *Saudi Med J* 2018;39:834-837. doi:[10.15537/smj.2018.8.22602](https://doi.org/10.15537/smj.2018.8.22602)
- Rezvani M, Menias C, Sandrasegaran K, Olpin JD, Elsayes KM, Shaaban AM. Heterotopic Pancreas: Histopathologic Features, Imaging Findings, and Complications. *Radiographics* 2017;37:484-499. doi:[10.1148/rg.2017160091](https://doi.org/10.1148/rg.2017160091)
- Sumiyoshi T, Shima Y, Okabayashi T, et al. Heterotopic pancreas in the common bile duct, with a review of the literature. *Intern Med* 2014;53:2679-2682. doi:[10.2169/internalmedicine.53.3007](https://doi.org/10.2169/internalmedicine.53.3007)
- Betzler A, Mees ST, Pump J, et al. Clinical impact of duodenal pancreatic heterotopia - Is there a need for surgical treatment? *BMC Surg* 2017;17:53. doi:[10.1186/s12893-017-0250-x](https://doi.org/10.1186/s12893-017-0250-x)