Journal of Gastrointestinal Surgery (2019) 23:379–380
https://doi.org/10.1007/s11605-018-3823-9

GI IMAGE

Pancreaticogastric Fistula Due to Infiltration of a Mixed Type Intrapapillary Mucinous Neoplasia of the Pancreas

Andreas Minh Luu[1] · Theodor Lutz[2] · Waldemar Uhl[1] · Chris Braumann[1]

Received: 8 May 2018 / Accepted: 15 May 2018 / Published online: 29 May 2018

Abstract

Background A 68-year-old asymptomatic patient was incidentally diagnosed with an intraductal papillary mucinous neoplasia (IPMN) of the pancreas with a pancreaticogastric fistula. He had a history of a right sided nephrectomy due to a renal cell carcinoma 9 years before. The patient underwent an uneventful total pancreatectomy and wedge resection of the stomach.
Methods The patient's medical history was studied and compared to recent literature via PubMed.
Results Pathohistological evaluation confirmed a mixed type IPMN of an intestinal subtype with pancreaticogastric fistula.
Conclusion Pancreaticogastric fistula due to benign IPMN is extremely rare. Surgical resection including wedge resection of the stomach is the treatment of choice.

Keywords Pancreaticogastric fistula · IPMN · Intraductal papillary mucinous neoplasia · Pancreatic surgery

A 68-year-old male Caucasian patient was referred to our clinic with a massive cystic lesion of the pancreas. A computed tomography of the abdomen was performed in a radiologic practice as a follow-up investigation after a right-sided nephrectomy due to a renal cell carcinoma 9 years before.

The patient was asymptomatic and free of any complaints. Magnet resonance imaging revealed a massively dilated main pancreatic duct with a cystic lesion in the pancreatic body infiltrating the greater curvature of the stomach highly suspicious for a pancreaticogastric fistula (Fig. 1). Upper GI endoscopy confirmed infiltration of the stomach without evidence for a malignancy in the biopsies. Laboratory parameters including tumor markers carcinoembryonic antigen and carbohydrate antigen 19–9 were unremarkable.

An uneventful total pancreatectomy and an en-block-wedge resection of the stomach were performed subsequently. Figure 2 demonstrates a view from the stomach with focus on the pancreaticogastric fistula. Pathologic examination revealed a mixed type main duct and side branch IPMN of an intestinal subtype. Carcinoma cells were not identified. The postoperative course was uneventful.

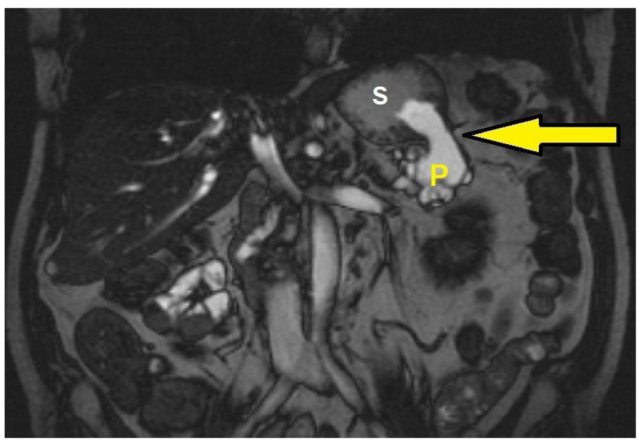

Fig. 1 Magnet resonance imaging of the abdomen (coronary view) demonstrating the pancreaticogastric fistula (yellow arrow) between the pancreas (P) and the stomach (S)

Each author meets the ICMJE criteria.

✉ Andreas Minh Luu
a.luu@klinikum-bochum.de

[1] Department of General and Visceral Surgery, St. Josef Hospital, Ruhr-University Bochum, Gudrunstraße 56, 44791 Bochum, Germany

[2] Department of Radiology, St. Josef Hospital, Ruhr-University Bochum, Bochum, Germany

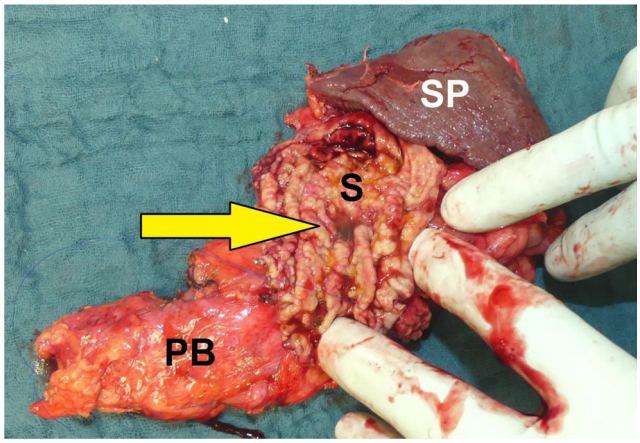

Fig. 2 Resected specimen after distal pancreatectomy, splenectomy, and gastric wedge resection demonstrating the pancreaticogastric fistula (yellow arrow). PB pancreatic body, S stomach, SP spleen

Discussion

IPMN are mucin-producing tumors developed from the epithelium of the main pancreatic duct and its sidebranches.[1] They can be classified in intestinal- and in pancreaticobiliary subtypes.[2] IPMN are usually asymptomatic and commonly diagnosed incidentally. Most are benign but have the potential for a malignant transformation.[2,3] Computed tomography of the abdomen and especially magnet resonance imaging with magnet resonance cholangiopancreatography (MRCP) are suitable for the diagnosis of an IPMN.[3] Endoscopic brush biopsy might be helpful but is not essential prior to surgery. Pancreaticogastric fistulas in benign IPMN occur extremely rare. Surgical resection is the treatment of choice.

Statement of Author Contribution Each author has participated sufficiently in the work. All authors met the following criteria:

1. Substantial contribution to the conception or design, analysis, and interpretation of the work.
2. All authors drafted the work and revised it critically for intellectual content.
3. All authors gave final approval of the final version to be published.
4. All authors agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

References

1. Sahani DV, Kadavigere R, Blake M, Fernandez-Del Castillo C, Lauwers GY, Hahn PF: Intraductal papillary mucinous neoplasm of pancreas: multi-detector row CT with 2D curved reformations—correlation with MRCP. Radiology 2006;238:560–569.
2. Hall TC, Garcea G, Rajesh A, Dennison AR: Pancreaticogastric fistula secondary to intraductal papillary mucinous neoplasia: a case report and review of the literature. Ann R Coll Surg Engl 2011;93:e32–34.
3. Jausset F, Delvaux M, Dumitriu D, Bressenot A, Bruot O, Mathias J, Regent D, Laurent V: Benign intraductal papillary-mucinous neoplasm of the pancreas associated with spontaneous pancreaticogastric and pancreaticoduodenal fistulas. Digestion 2010;82:42–46.