An impossible biliary drainage? Fistulization of a degenerated intraductal papillary mucinous pancreatic neoplasm to the common bile duct

Intraductal papillary mucinous pancreatic neoplasms (IPMNs) are very common lesions. International guidelines recommend surveillance or more invasive management according to precise criteria [1]. A very rare complication of these lesions is the fistulization to an adjacent structure of the pancreas [2, 3].

We report the case of a 90-year-old man with jaundice in the context of metastatic prostatic adenocarcinoma. A cephalic cystic lesion of the pancreas was known and stable during his oncologic follow-up. An abdominal-pelvic computed tomography scan found major dilation of the common bile duct (measuring 27 mm) and of the main pancreatic duct (12 mm). A cephalic multiloculated cystic mass was also described, measuring 77 × 78 mm with irregular parietal nodular contrast, compatible with IPMNs (▶ Fig. 1, ▶ Fig. 2).

Endoscopic ultrasonography confirmed the diagnosis of IPMN with high-risk stigmata (main pancreatic duct > 10 mm and enhancing mural nodule > 5 mm). Endoscopic retrograde cholangiopancreatography (ERCP) was performed and revealed major dilation of the major and minor papillary orifices owing to presence of mucinous material. Sphincterotomy and use of a balloon inflated to 15 mm resulted in the clearance of the mucinous material. Cholangiography did not clearly identify a fistula between the bile duct and IPMN (▶ Video 1). The jaundice did not improve following this first procedure. A second ERCP was performed to extract mucinous material and to place two double-pigtail plastic stents (10 Fr × 7 cm) to provide biliary drainage (▶ Fig. 3). Fistulization of IPMNs is a very rare complication, with only a few cases reported in the literature [2–5]. In practice, this type of fistula is untreatable by endoscopic means, mainly due to the continuous production of mucinous material. Endoscopic drainage appears to be a bridge to surgery or a palliative treatment. Surgery, when it is possible, appears to be the best treatment.

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▶ Fig. 1 Abdominal-pelvic computed tomography scan showing dilation of the common bile duct and main pancreatic duct due to an intraductal papillary mucinous pancreatic neoplasm (IPMPN) located at the lower part of the pancreatic head and uncus. a Dilation of the intrahepatic bile ducts and biliary convergence. b Dilation of the main bile duct (red arrow) measuring 27.1 mm. c Dilation of the main pancreatic duct (red arrow) measuring 11.8 mm. d, e IPMN with heterogeneous appearance (red arrow) with presence of septum.
Competing interests

The authors declare that they have no conflict of interest.

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References

1ogy 2017; 17: 738–753

[2] Bong JJ, Wang J, Spalding DR. Pancreatobili- 
ary and pancreatoduodenal fistulae in intra-
ductal papillary mucinous neoplasm of the pan-
creas: report of a case. Surg Today 2011; 
41: 281–284

[3] Brown NG, Camilo J, McCarter M et al. Re-
fractory jaundice from intraductal papillary 
mucinous neoplasm treated with cholan-
gioscopy-guided radiofrequency ablation. 
ACG Case Rep J 2016; 3: 202–204

[4] Ravaud S, Laurent V, Jausset F et al. CT and 
MR imaging features of fistulas from intra-
ductal papillary mucinous neoplasms of the 
pancreas to adjacent organs: a retrospective 
study of 423 patients. Eur J Radiol 2015; 84: 
2080–2088

[5] Rosenberger LH, Stein LH, Witkiewicz AK et 
al. Intraductal papillary mucinous neoplasm 
(IPMN) with extra-pancreatic mucin: a case 
series and review of the literature. J Gastro-

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Fig. 3  Endoscopic retrograde cholangiopancreatography. a Dilation of the intrahepatic bile ducts. b Two double-pigtail plastic stents were placed to provide biliary drainage.