A rare case of multifocal intraductal nodules and a solid mass of the pancreas

Jun Li[1], Yilong Wang[1], Feng Liu[1]
[1]Digestive Endoscopy Center, Shanghai Tenth People's Hospital, Tongji University School of Medicine, Shanghai, China

A 69-year-old woman presented with epigastric pain for 1 month. She gave a past history of cholecystectomy for gallstones before 20 years and two occurrences of pancreatitis within 10 years. Her physical examination was unremarkable. Laboratory tests revealed elevated levels of ALT (204 U/L), AST (205 U/L), ALP (1502 U/L) and γ-GT (1127 U/L). The levels of total bilirubin (22 μmol/L) and CA19-9 (49 U/mL) were slightly elevated. Contrast-enhanced computed tomography revealed dilated intra- and extrahepatic bile duct and cystic dilatation of the main pancreatic duct. There were multifocal nodules within the dilated pancreatic duct in the head, neck and body of the pancreas, and a non-enhanced solid mass in the tail of the pancreas [Figure 1a and b]. EUS demonstrated multiple slightly hyperechoic intraductal nodules measuring up to 19 mm × 16 mm in the main pancreatic duct and a 35 mm × 25 mm hypoechoic mass in the tail of the pancreas [Figure 1 c and d]. EUS and endoscopic retrograde cholangiopancreatography with intraductal ultrasound revealed dilated common bile duct but no significant signs of intraductal lesions. The papilla showed no obvious fish mouth appearance [Figure 2].

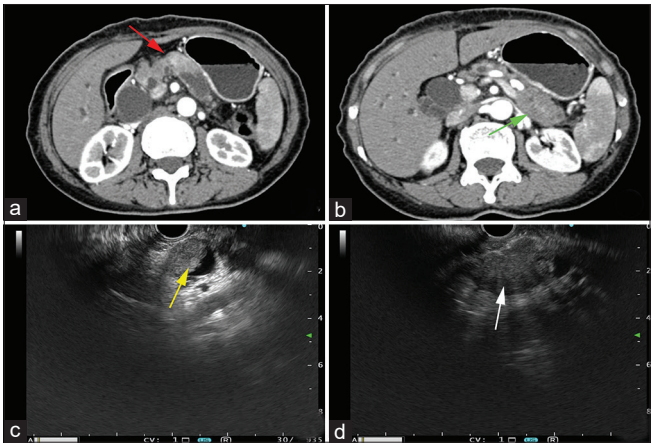

Figure 1. Contrast-enhanced computed tomography displaying multifocal nodules (a, red arrow) within the dilated pancreatic duct and a solid mass in pancreatic tail (b, green arrow). EUS showing slightly hyperechoic intraductal nodules (c, yellow arrow) in pancreatic body and a hypoechoic mass (d, white arrow) in the tail

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Address for correspondence
Dr. Feng Liu,
Digestive Endoscopy Center, Shanghai Tenth People's Hospital, Tongji University School of Medicine, 301 Mid. Yanchang Road, Shanghai, 200072, China. E-mail: drliuffeng@hotmail.com
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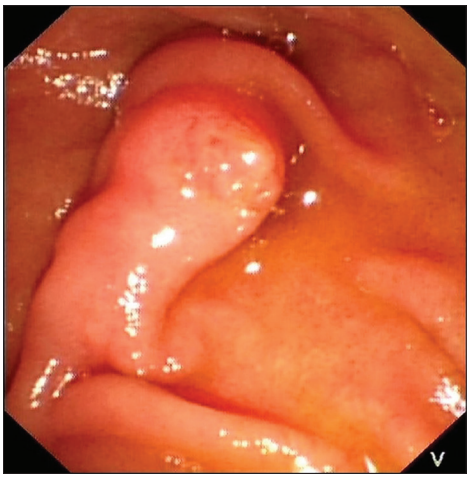

Figure 2. Endoscopic view of the papilla showed no obvious fish mouth appearance

We performed EUS-guided fine-needle biopsy (EUS-FNB) using a 22-gauge needle for both the intraductal nodules and the solid mass. Tissue pathologies showed complex, arborizing papillae lined by multiple layers of cuboidal and columnar epithelial cells with abundant oncocytic cytoplasm [Figure 3a], foci of cells with enlarged nuclei, prominent nucleoli and scattered mitotic figures [Figure 3b]. These characteristics are consistent with the general features of intraductal oncocytic papillary neoplasm (IOPN) with high grade dysplasia.[1]

IOPN is a rare type of cystic pancreatic tumors, which is historically considered a subtype of IPMN but now a distinct entity according to 2019 WHO classification.[2] IOPN differs biologically, prognostically, and molecularly from IPMN as well as other pancreatic tumors.[3] The prognosis of IOPN is favored after resection even when metastasis occurred. Accurate diagnosis of IOPN before treatment is important to ensure proper management, but usually difficult by radiological imaging. Cystic fluid analyses also provide limited information with low cytological yield. Reported IOPNs were mainly diagnosed by surgical specimens.

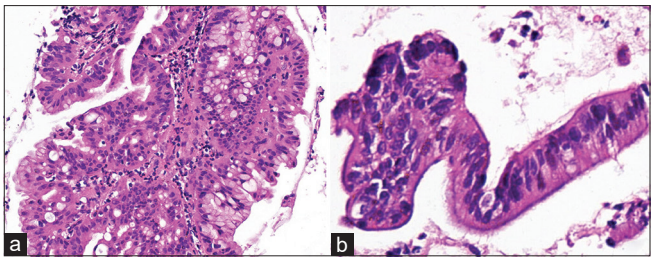

Figure 3. Histopathology revealing complex, arborizing papillaes lined by multiple layers of cuboidal and columnar epithelial cells with abundant oncocytic cytoplasm (a, ×200) and foci of cells with enlarged nuclei, prominent nucleoli and scattered mitotic figures (b, ×400)

To the best of our knowledge, this is the first report of IOPN histologically diagnosed by EUS-FNB.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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