# Intra-ampullary protruding mass: unusual presentation of mucinous carcinoma of the pancreas



Fig. 1 a Abdominal computed tomography scan shows enlarged pancreas head with multiple calcifications. b Upstream pancreatic duct is dilated with a parenchymal atrophy.



Fig. 2 Magnetic resonance cholangiopancreatography shows multiple filling defects in the dilated pancreatic duct. A large stone is noted at the proximal part of the pancreatic duct (arrow).

A 71-year-old man was referred to our hospital with chronic alcoholic pancreatitis. He had a history of daily intake of alcohol and intermittent abdominal pain over the past 15 years. The biochemical tests were normal except for a mild increase in the gamma glutamyl transpeptidase level. Cancer antigen (CA) 19–9 was 118.1 U/mL (normal value < 27 U/mL). Abdominal computed tomography scan showed an enlarged pancreatic head with calcifications, a marked dilated upstream pancreatic duct, and parenchymal atrophy (**° Fig. 1 a** and **° Fig. 1 b**).

Magnetic resonance cholangiopancreatography also revealed intraductal filling defects in the dilated pancreatic duct ( Fig. 2). Under the impression of chronic pancreatitis with massive pancreaticolithiasis, endoscopic retrograde cholangiopancreatography was formed. The major papilla was slightly enlarged, and yellowish mucin-like material was noted at the orifice (> Fig. 3a). We initially thought that this material might be bile-tinged, fragmented pancreatic duct stones because the patient had a massive pancreaticolithiasis. However, endoscopic pancreatic sphincterotomy revealed it to be an intra-ampullary soft mass protruding from the pancreas head ( Fig. 3b). A biopsy was performed and the pathology revealed a mucinous carcinoma with well-defined pools of mucin and malignant epithelial cells ( Fig. 4).

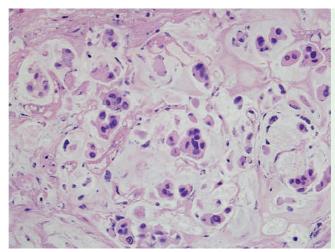
Mucinous carcinoma of the pancreas is rare and is characterized histologically by lakes of extracellular mucin with "floating" malignant epithelial cells. Grossly, the mass is gel-like, soft, and movable [1]. This characteristic pathologic finding, of the tumor in this case, might have affected the peculiar endoscopic finding and unusual location (i.e. the protruding mass in the ampullary portion of the papilla). Fortunately, we could diagnose the pancreatic cancer that had not been seen on the radiologic studies when performing the pancreatic sphincterotomy, which is known to be an essential step for endoscopic intervention of chronic pancreatitis, especially for stone removal [2].

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**Fig. 3** a Duodenoscopy shows a bulging major papilla with yellowish, mucin-like material at the orifice. **b** After the pancreatic sphincterotomy, a reddish and friable soft mass is detected at the ampullary portion of the papilla.



**Fig. 4** Pathology reveals mucin pools with floating malignant epithelial cells, consistent with the diagnosis of mucinous carcinoma (hematoxylin and eosin, × 400).

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## **Bibliography**

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