ACG CASE REPORTS JOURNAL

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Intracholecystic Papillary Neoplasm of the Gallbladder Preoperatively Diagnosed by Endoscopic Ultrasonography and Peroral Cholangioscopy

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CASE REPORT

An 86-year-old woman from Japan was admitted to our hospital with jaundice. Endoscopic ultrasonography (EUS) revealed a high-echoic wall thickening and mass lesion with an irregular or papillary surface in the gallbladder. Moreover, mobile hyperechoic lesions were observed in the gallbladder and common bile duct. Contrast-enhanced EUS showed inhomogeneous hyperenhancement patterns within the gallbladder wall thickening and mass lesion without any invasion out of the gallbladder wall (Figure 1). The opening of the papilla of Vater and outflow of mucus from the papilla were endoscopically confirmed. Endoscopic retrograde cholangiography showed filling defects within the dilated common bile duct, with slight movement and changes in shape. Peroral cholangioscopy (POCS) showed the mucinous material continued to flow out of the cystic duct and no obvious tumor in cystic and common bile duct (Figure 2). Based on these findings, intracholecystic papillary neoplasm (ICPN) localized in the gallbladder and jaundice due to mucinous production was diagnosed, and laparoscopic cholecystectomy was performed without extended surgical resection.

Histological examination showed an intestinal-type ICPN with an associated adenocarcinoma was diagnosed, localized within the gallbladder wall (Figure 3). The postoperative course was uneventful with no recurrence and jaundice observed at 12 months of follow-up. ICPN is a grossly visible, mass-forming, noninvasive epithelial neoplasm arising in the mucosa of the gallbladder, which is associated with various amounts of mucin.[1] The rate of ICPN among cholecystectomies is very low (14/3,265, 0.4%), and about 6% of gallbladder cancers arise in association with ICPN.[2]

Preoperative diagnosis of ICPN is often difficult and remains challenging. Few reports have shown the utility of EUS and POCS for diagnosing ICPN. In this case, ICPN localized in the gallbladder wall was diagnosed with EUS and POCS, and therefore, cholecystectomy mainly to suppress the production of mucus, which was the cause of jaundice, could be selected. Obstructive jaundice is

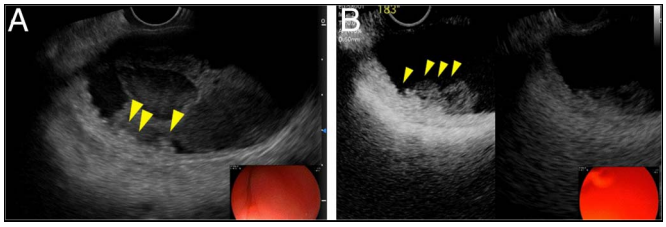

Figure 1. (A) Endoscopic ultrasonography demonstrated a high-echoic wall thickening and mass lesion with the papillary surface in the gallbladder body. (B) Contrast-enhanced endoscopic ultrasound revealed hyperenhancement and inhomogenous enhancement pattern within gallbladder wall thickening and mass lesion.

ACG Case Rep J 2021;8:e00574. doi:10.14309/crj.0000000000000574. Published online: May 11, 2021

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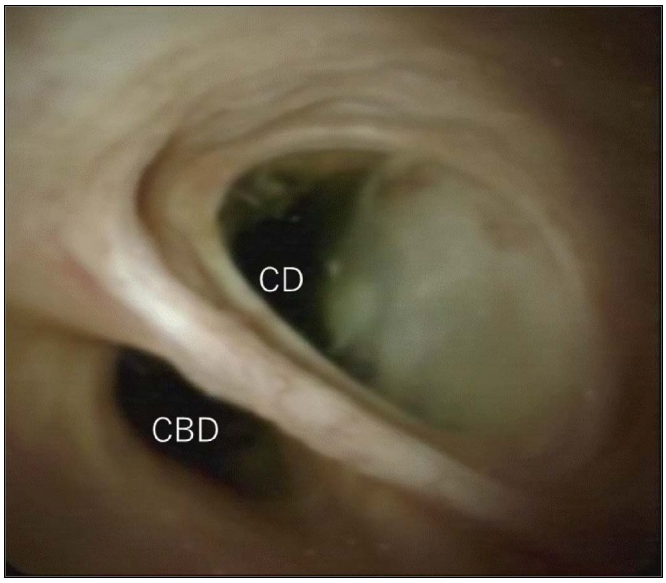

Figure 2. Peroral cholangioscopy showed the mucinous material continued to flow out of the CD and no obvious tumor in the cystic duct and common bile duct.

very rare in cases of ICPN, and there are only 3 reported cases of biliary obstruction.[3–5] In all reported 3 cases, tumors were present or prolapsed from the gallbladder body into the common bile duct mucosa. Pancreatoduodenectomy was performed in all 3 cases. Therefore, our report is the first study of ICPN with obstructive jaundice due only to mucinous production, in which the morphology and extent of the lesion were preoperatively evaluated with EUS and POCS, and cholecystectomy without extended surgical resection was performed.

DISCLOSURES

Author contributions: All authors contributed equally to this manuscript. N. Kuniyoshi is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

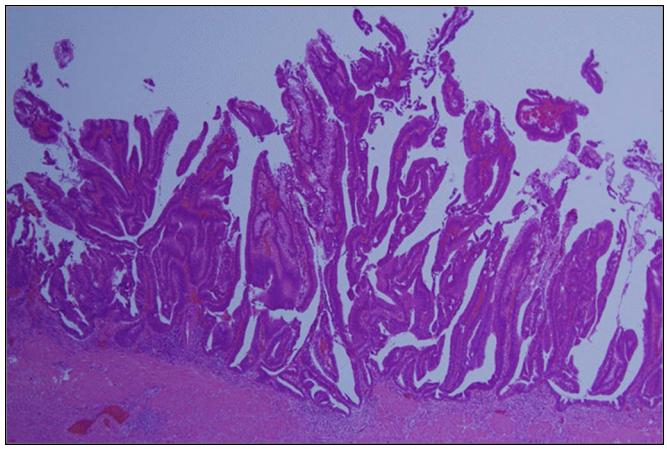

Figure 3. Histologically, the tumor characterized by hyperchromatic cells with papillary and tubulovillous pattern, and partially cribriform proliferated (hematoxylin and eosin stain, 100× magnification).

Received July 30, 2020; Accepted December 4, 2020

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