

Diagnosis of biliary cystadenoma by peroral video cholangioscopy

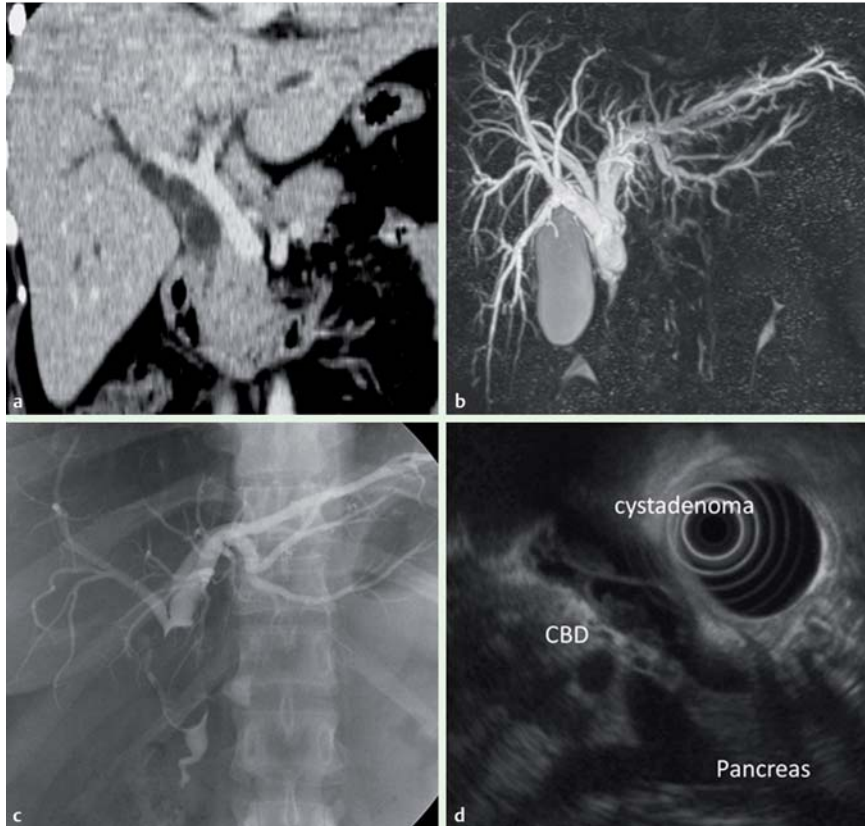


Fig. 1 Longitudinal imaging of the common bile duct (CBD) by various examinations. **a** Contrast-enhanced computed tomography showed diffuse dilatation of the intrahepatic and common bile ducts. **b** Magnetic resonance cholangiopancreatography demonstrated irregular dilata-

tion of the CBD. **c** Endoscopic retrograde cholangiography demonstrated the elliptic defect in the CBD. **d** Endoscopic ultrasonography showed a multilocular cystic tumor in the mid to upper portion of the CBD without signs of infiltrative growth.

A 31-year-old woman with jaundice was admitted to our hospital. Computed tomography, magnetic resonance cholangiopancreatography, and endoscopic retrograde cholangiography suggested the presence of a solitary cystic lesion in the common bile duct (CBD) (Fig. 1 a, b, c). Subsequent endoscopic ultrasonography (EUS) and intraductal ultrasonography (IDUS) showed a multilocular cystic tumor with cyst-in-cyst pattern in the CBD (Fig. 1 d; Fig. 2).

After the patient had recovered from jaundice, peroral video cholangioscopy (POCS) was performed. POCS revealed that the tumor had a flat surface with a fine network of thin vessels, suggesting

that it was a benign tumor (Fig. 3). Based on these findings, a preoperative diagnosis of biliary cystadenoma (BCA) was made. The patient underwent choledochal resection and subsequent choledochojejunostomy. The resected specimen included a 45-mm multilocular cystic mass in the CBD. Microscopically, the cyst wall was lined by a single layer of high columnar non-neoplastic epithelium, with underlying ovarian-like stroma. Spindle cells in the ovarian-like stroma were positive for progesterone and estrogen receptors.

BCAs are rare neoplasms that usually occur in the liver and, less frequently, in the extrahepatic bile ducts [1–4]. They are con-

sidered to originate from the embryonic tissue precursors of the biliary epithelium and to be premalignant lesions.

This is the first report of a diagnosis of extrahepatic cystadenoma by POCS prior to surgery. In this case, POCS showed that the tumor arose from the bile duct wall and had a smooth surface with a fine network of thin vessels, features that are compatible with a benign lesion [5] and are potentially characteristic findings of BCA. POCS clearly depicted the cystic tumor in the CBD. Imaging studies enabled preoperative diagnosis of BCA in the CBD. Such tumors are probably better termed ovarian tumor of the bile duct.

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Competing interests: None

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References

- 1 Devaney K, Goodman ZD, Ishak KG. Hepatobiliary cystadenoma and cystadenocarcinoma. A light microscopic and immunohistochemical study of 70 patients. *Am J Surg Pathol* 1994; 18: 1078–1091
- 2 Wheeler DA, Edmondson HA. Cystadenoma with mesenchymal stroma (CMS) in the liver and bile ducts. *Cancer* 1985; 56: 1434–1445
- 3 Van Steenberg W, Ponette E, Marchal G et al. Cystadenoma of the common bile duct demonstrated by endoscopic retrograde cholangiography: an uncommon cause of extrahepatic obstruction. *Am J Gastroenterol* 1984; 79: 466–470
- 4 Umphrey HR, Mel Wilcox C, Vickers SM. Extrahepatic biliary cystadenoma localized to the common bile duct. *Surgery* 2002; 131: 587–588
- 5 Itoi T, Osanai M, Igarashi Y et al. Diagnostic peroral video cholangioscopy is an accurate diagnostic tool for patients with bile duct lesions. *Clin Gastroenterol Hepatol* 2010; 8: 934–938

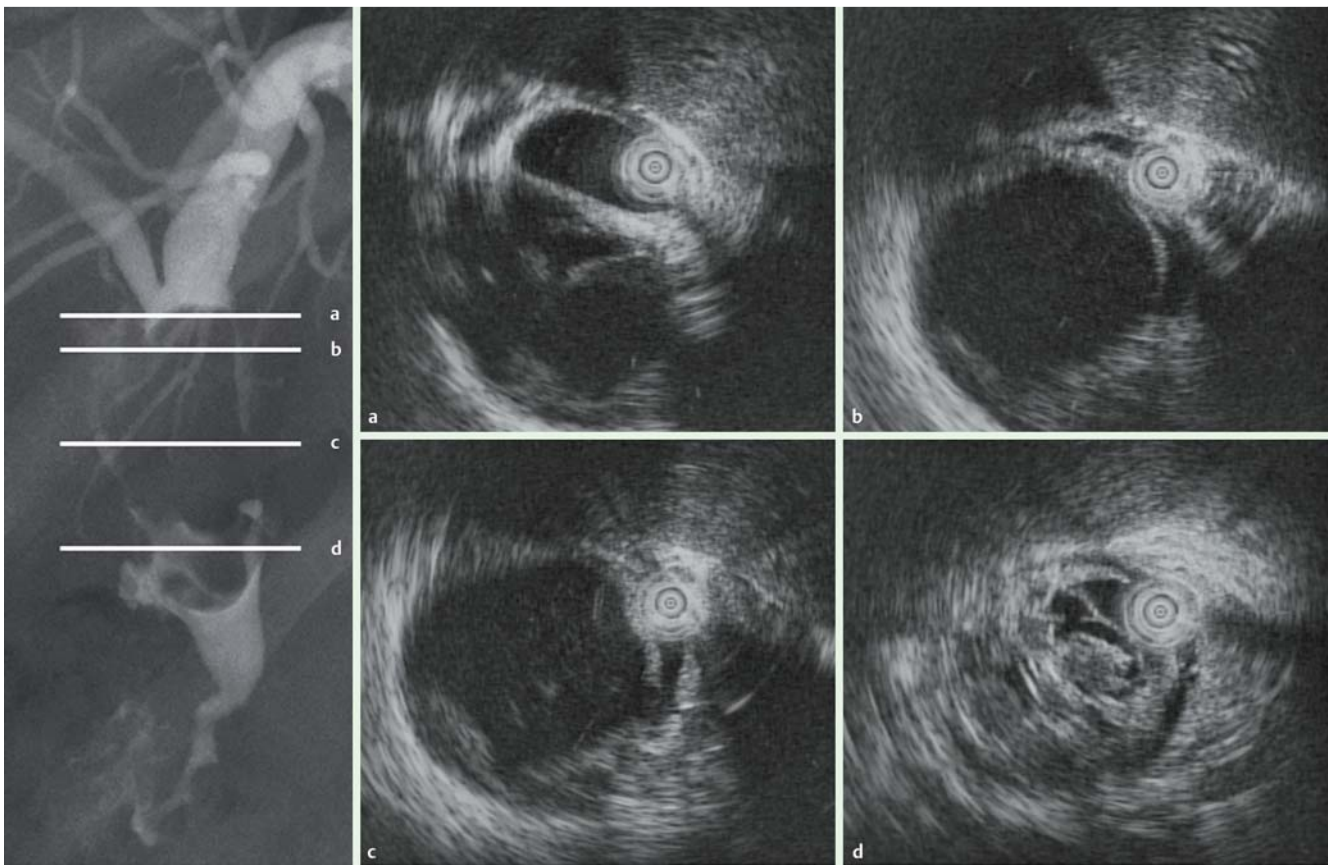


Fig. 2 Intraductal ultrasonography: the multilocular lesion gradually compressed the wall of the common bile duct and finally occluded the lumen.

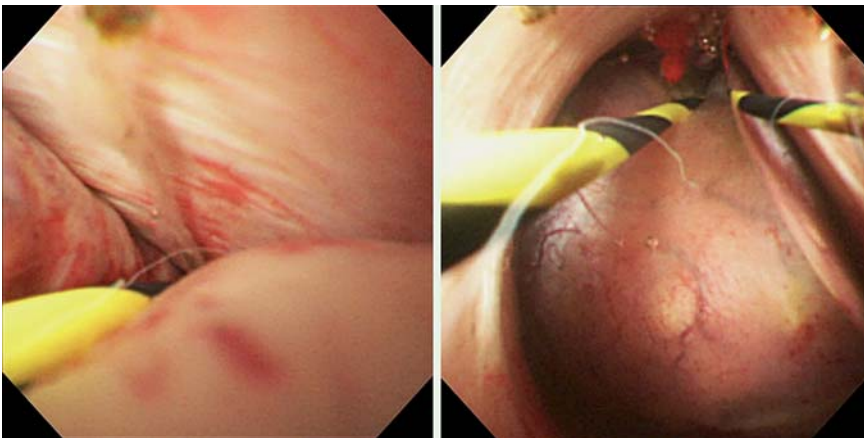


Fig. 3 Peroral cholangioscopy demonstrated a smooth and soft cystic lesion in the common bile duct.

Bibliography

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