

## Case Report

# Hepatic Mucinous Cystic Tumor Communicating with the Bile Duct

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## ABBREVIATIONS

MCT: Mucinous Cystic Tumor; IPMN: Intraductal Papillary Mucinous Neoplasm; IPNB: Intraductal Papillary Neoplasm of Bile Duct; CT: Computed Tomography; MRI: Magnetic Resonance Imaging

## EDITORIAL

Hepatic mucinous tumors are rare and can be difficult to distinguish from intraductal bile duct neoplasms. This tumor usually produces mucin, but it can be a problem to distinguish between a hepatic mucinous cystic neoplasm and an intraductal tumor. Here we report a patient who had a hepatic mucinous cystadenoma with communication between the cyst and bile duct.

A 65-year-old woman developed chronic renal failure of unknown etiology and required hemodialysis. She was scheduled to undergo living-related renal transplantation from her husband. However, a cystic lesion of the liver associated with calcification, gallstones, and dilatation of intrahepatic bile ducts (B2-B3) was found by the referring hospital. Investigation of the cystic tumor was performed at that hospital. Percutaneous transhepatic cyst puncture and infusion of contrast medium showed a communication between the cyst and the bile duct (Figure 1). Endoscopic retrograde cholangiography also revealed a communication with the cystic lesion. After drainage of the cyst was performed, dilatation of the intrahepatic bile ducts diminished.

She was admitted to our hospital for renal transplantation, and was referred for the treatment of her gallstones. Computed tomography (CT) showed an irregular cystic lesion in segment 4 of the liver, which had thickened and partly calcified walls. The contents of the cyst were largely serous and a communication between cyst and bile duct was not visualized. Before renal transplantation, it was decided that her gallstones and the cystic lesion in the liver required treatment.

Therefore, left lobectomy of the liver was performed together with cholecystectomy. The resected specimen contained a multilocular cystic tumor with black stones inside it and calcification of its walls. Microscopic examination showed that

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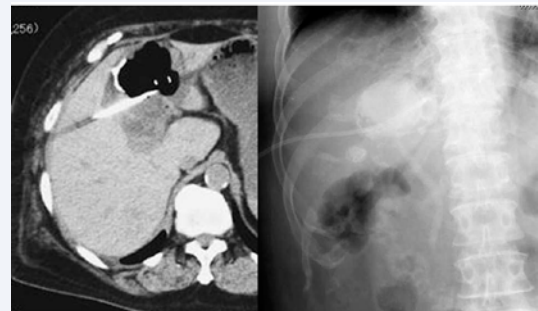
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### Keywords

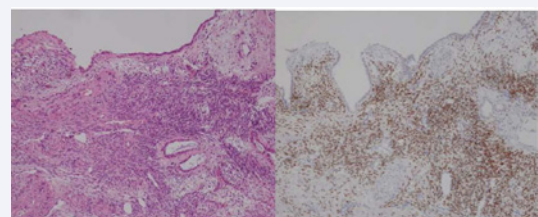
- Hepatic mucinous cystic tumor
- Bile duct communication

the cysts were lined by cuboidal and columnar epithelium with evidence of inflammation (Figure 2). The ovarian-like stroma was positive for estrogen and progesterone receptors on immunohistochemistry (Figure 2). A communication between the cystic tumor and the bile duct was not evident.

Hepatic mucinous tumor is rare and it can be confusing to distinguish between this tumor and an intraductal bile duct tumor. Although this tumor usually has mucin-producing capacity, it can be problematic to differentiate between a hepatic mucinous cystic neoplasm and an intraductal tumor. Recently, the concept of this tumor has changed and it is thought to be a counterpart of the cystic neoplasms of the pancreas, i.e., intraductal papillary mucinous neoplasm (IPMN) and mucinous



**Figure 1** Endoscopic retrograde cholangiography also revealed a communication with the cystic lesion.



**Figure 2** The ovarian-like stroma was positive for estrogen and progesterone receptors on immunohistochemistry.

cystic tumor (MCN) [1]. Mucinous cystic tumor of the pancreas rarely has a communication with the pancreatic duct.

Thus, the criteria for classification of hepatic mucinous tumor are usually the absence of a communication between cyst and bile duct and the presence of ovarian-like stroma. Our patient had a hepatic mucinous tumor with ovarian-like stroma, and there was a communication between the cystic lesion and the bile duct.

This was an unusual case of hepatic mucinous tumor. Although the presence of ovarian-like stroma is specific to hepatic mucinous tumor, a communication between cyst and bile duct as well as stones within the cyst cavity are not in accordance with the known features of this tumor. The communication in this patient was thought to be either a true communication between

the bile duct and the cystic lesion or else due to rupture of a cyst into the bile duct. CT and MRI are inadequate imaging methods to examine the communication of an intrahepatic cystic lesion with the biliary tree. However, communication of this patient's cystic lesion with the bile duct was confirmed by both percutaneous transhepatic cyst puncture with infusion of contrast medium and endoscopic retrograde cholangiography.

## REFERENCE

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