

An unusual cyst associated with gallbladder cancer

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A 71-year-old man presented with vomiting and a sense of distension in the upper abdomen. Laboratory data were within normal ranges. An abdominal computed tomography (CT) scan revealed a monolocular cystic lesion of ~120 mm in diameter that was communicating with the gallbladder (Fig. 1A). The intensity of the cyst contents on imaging was comparable to that of cystic bile.

A CT scan demonstrated a solid and increasingly enhanced mass in the neck of the gallbladder that obstructed the cystic duct and invaded the right hepatic artery (Fig. 1B). The remnant liver volume was insufficient for hepatectomy; therefore, systemic chemotherapy was initiated, and percutaneous transhepatic gallbladder drainage was performed. The bile cytology revealed adenocarcinoma cells that stained positive for periodic acid-Schiff, and a gallbladder cyst concomitant with gallbladder cancer (GBC) was diagnosed.

Gallbladder cysts are classified as congenital or acquired [1]. Gallbladder cysts concomitant with GBC are categorized as an acquired cyst, which generally occurs due to increased pressure caused by the occlusion of the Rokitansky–Aschoff sinus (RAS) [1–4]. Although RAS occlusion did not develop in this case, the cyst might actually have been caused through increased pressure from the gallbladder lumen caused by obturation of the cystic duct and mucus production. Alternatively, the cancer itself might have played a role in the cyst formation. A CT scan revealed that the gallbladder wall thickness remained while the gallbladder was considerably dilated, and the cyst wall infiltrated the duodenum. Therefore, this cyst was likely lined with cancer, and tumor invasion into vulnerable tissues may have caused cyst formation independently from occlusion.

Meanwhile, regarding the relationship between carcinogenesis and gallbladder cyst, the details have never

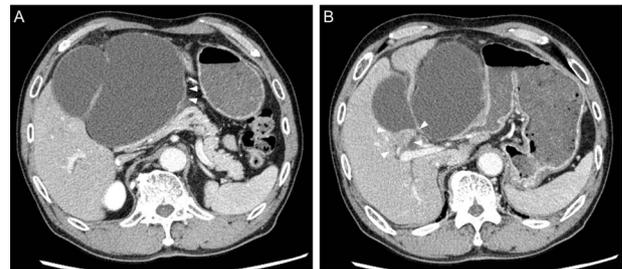


Figure 1. (A) An abdominal computed tomography scan reveals a monolocular cystic lesion in communication with the fundus of the gallbladder. The gallbladder wall thickness remains (arrowheads), while the gallbladder is considerably dilated. (B) An abdominal computed tomography scan reveals a solid and increasingly enhanced mass in the neck of the gallbladder (arrowheads).

been described in the literature. However, in adenomyomatosis, the internal pressure of gallbladder is related to GBC [5]. Therefore some association might also exist between carcinogenesis and gallbladder cyst.

CONFLICT OF INTEREST STATEMENT

No conflicts of interest.

FUNDING

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ETHICAL APPROVAL

Not applicable.

CONSENT

Informed consent was obtained from this patient and his family for publication of this case report.

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