

Cysto-duodenal fistula: an unusual complication of a nonparasitic hepatic cyst

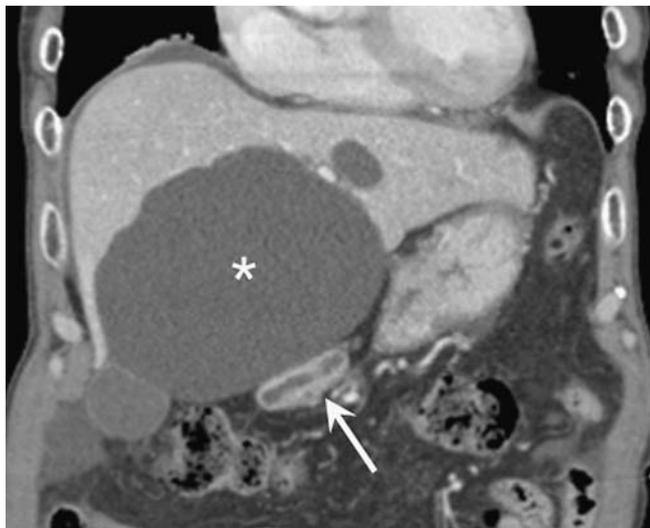


Fig. 1 Contrast-enhanced computed tomography in a 70-year-old man with postprandial abdominal discomfort and anemia of recent onset. There is a huge homogeneous cyst (asterisk) in segments IV and V of the liver, compressing the adjacent first portion of the duodenum (arrow).



Fig. 2 Simple abdominal radiographic view showing a large amount of intra-abdominal air (asterisk) with an internal air–fluid level in the right upper quadrant of the abdomen.

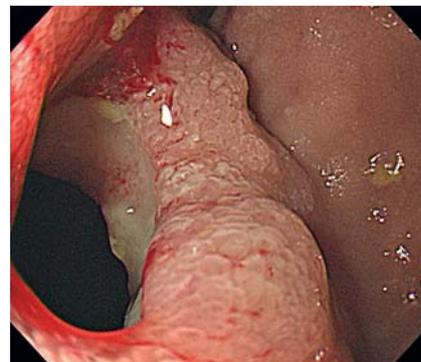


Fig. 3 Endoscopic view showing a 10-mm penetrated peptic ulcer at the anterior wall of the duodenal bulb.

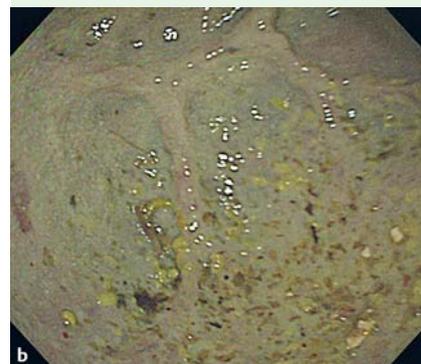


Fig. 4 a, b Intracystic endoscopic findings using an ultrathin endoscope: note the thick feeding vessels and food materials in the cavity wall.

Increasing use of radiological imaging modalities has resulted in the detection of nonparasitic hepatic cysts in 1%–5% of the general population, however, complicated nonparasitic hepatic cysts are exceedingly rare [1–4]. Here, we present a unique case of a hepatic cysto-duodenal fistula with the intracystic endoscopic findings.

A 70-year-old man was admitted for postprandial abdominal discomfort and anemia of recent onset. Eight months previously, a 9×12-cm asymptomatic hepatic cyst in segments IV and V, which was compressing the duodenum, had been incidentally identified on computed tomog-

raphy (CT) (● **Fig. 1**). On admission, simple abdominal radiography showed well-delineated, intra-abdominal gas with an internal air–fluid level in the right upper quadrant of the abdomen, but no intra-abdominal free air (● **Fig. 2**). Laboratory studies revealed anemia (hemoglobin 7.5 g/dL, hematocrit 23.7%, and serum ferritin 286.1 ng/mL) compatible with acute blood loss.

Esophagogastroduodenoscopy, using a conventional gastroscope, showed a 10-mm penetrated peptic ulcer at the anterior wall of the duodenal bulb (● **Fig. 3**). An ultrathin endoscope (GIF-XP260N, Olympus Optical Co., Tokyo,

Japan), passed through the opening, revealed a huge unilocular cystic cavity with thick feeding vessels and food materials in the cyst wall (● **Fig. 4**). However, there was no evidence of intracystic hemorrhage or abscess formation. Abdominal CT verified internal communication between the pre-existing hepatic cyst and the duodenal bulb through a fistulous

tract. Considering the underlying mechanism of fistula formation, we speculated that persistent compression and subsequent mechanical friction due to the presence of the cyst resulted in progressive erosion of the adjacent duodenal wall. The spontaneous development of a peptic-duodenal ulcer might have played a role as well. The patient was treated with a proton-pump inhibitor and he remained healthy during the 8-month followup, with gradual improvement of anemia. He refused further followup examinations.

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Competing interests: None

Jung W. Kim, Chang K. Lee, Jae J. Shim, Jae Y. Jang

Division of Gastroenterology, Department of Internal Medicine, Kyung Hee University School of Medicine, Seoul, Korea

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Corresponding author

Chang K. Lee

Department of Internal Medicine
Kyung Hee University School of Medicine
23 Kyungheedae-ro
Dongdaemun-gu
Seoul 130-872
Korea
Fax: +82-2-9681848
cklee92@paran.com