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Dumbbell Gallbladder Diagnosed by ERCP

Priyanka P. Patel, MD[1], Carl S. Swendsen, MD[2], Vu Nguyen, MD[2], Duc Vu, MD[2], Matt Bower, MD[3], Daniel Flores, MD[4], and Kathyrn Poole, MD[5]

[1]*Department of Internal Medicine, Baylor Scott & White Health, Temple, TX*
[2]*Department of Gastroenterology, Baylor Scott & White Health, Temple, TX*
[3]*Department of Surgical Oncology, Baylor Scott & White Health, Temple, TX*
[4]*Department of Radiology, Baylor Scott & White Health, Temple, TX*
[5]*Department of Medicine, Baylor Scott & White/Texas A&M Health Science Center, Temple, TX*

Case Report

A 76-year-old woman presented with a 3-year history of intermittent and worsening right upper quadrant abdominal pain. The abdominal pain was not associated with nausea or vomiting, and did not get worse with food intake. Laboratory results were normal. Abdominal computed tomography (CT) showed a 2.3 x 1.9-cm fluid-filled lesion of the biliary system consistent with a type II choledochal cyst, accessory gallbladder, or gallbladder diverticulum (Figure 1). A magnetic resonance cholangiopancreatography (MRCP) was consistent with a type II choledochal cyst (Figure 2). Endoscopic retrograde cholangiopancreatography (ERCP) with cholangiogram confirmed gallbladder stricture (Figure 3). Subsequently, laparoscopic cholecystectomy and pathology also confirmed a gallbladder stricture (Figure 4). Postoperatively, the patient's symptoms resolved.

Gallbladder strictures are rare and can be either congenital or acquired. Congenital strictures are classified as annular strictures, projection of folds of the inner lumen, or fundus strictures. Causes of acquired strictures include, intramural infections, adhesions, chronic indurative processes, or malignancy.[1,2] A gallbladder stricture can often be confused for a choledochal cyst on imaging, including MRCP.[3] MRCP is often the test of choice for a diagnosis of choledochal cyst because it is less invasive; however, ERCP has a higher sensitivity and should be used if imaging findings are uncertain. Sensitivity may be decreased if inflammation and severe scarring are present.[4] EUS is known to be effective for the diagnosis of small pancreatobiliary lesions, and can detect lesions as small as 1–2 mm, but there is very limited information regarding EUS for diagnosis of gallbladder strictures.[5]

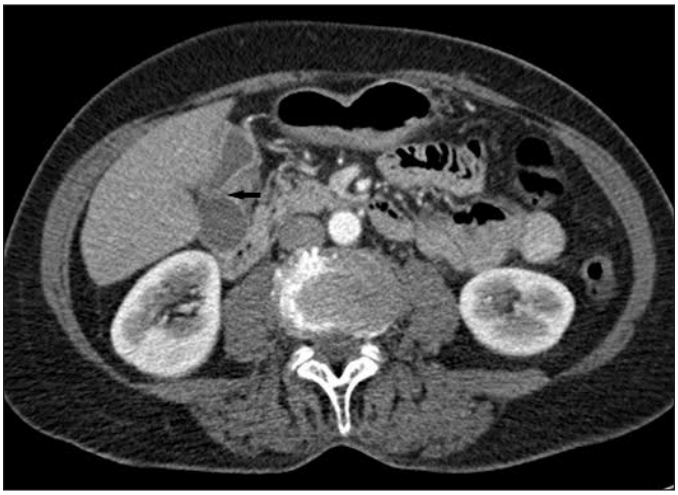

Figure 1. CT showing possible choledochal cyst, accessory gallbladder, or gallbladder diverticulum.

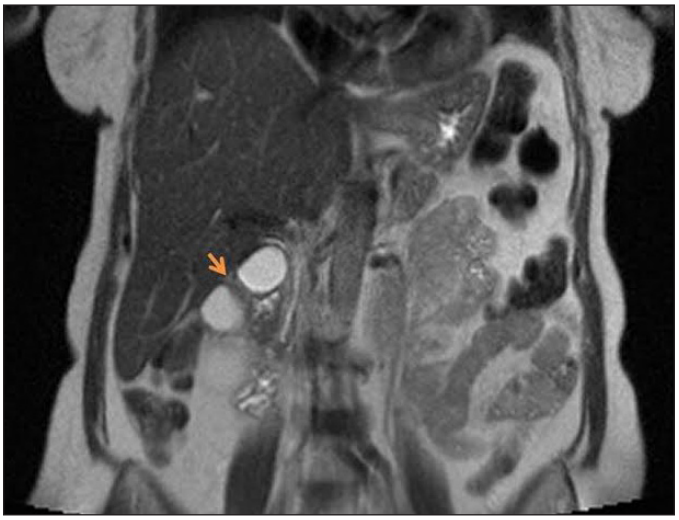

Figure 2. MRCP showing a type II choledochal cyst.

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Correspondence: Priyanka P. Patel, 2401 South 31st Street, Temple, TX 76508 (PPATEL@sw.org).

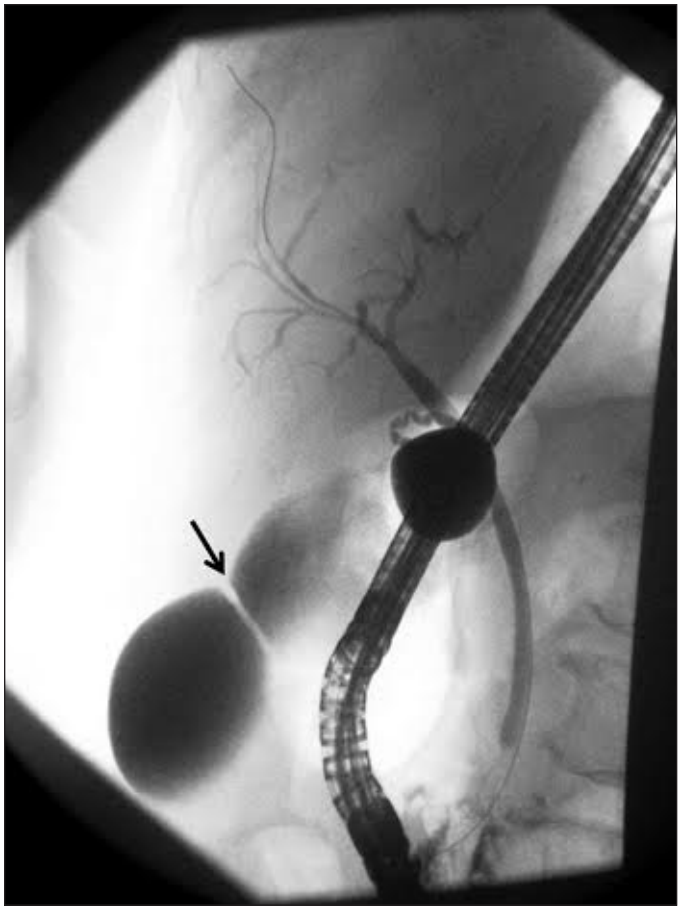

Figure 3. ERCP image of gallbladder stricture.

It is often difficult to ascertain whether a stricture is acquired or congenital, as patients with congenital strictures can incur recurrent infections and gallstone formation. Most commonly, strictures are believed to be acquired. Recurrent episodes of cholecystitis may lead to scarring, fibrosis, and ultimately stricture formation.[1,2] Acquired strictures can cause improper drainage of the biliary tree and predispose patients to further infection and stone formations. Acquired strictures may predispose patients to malignancy.[1] Congenital strictures are of little significance unless infection is present. It is important to diagnosis the stricture prior to surgery, as certain congenital strictures can predispose the patient to a postoperative bile leak.[1,2] Diagnosis of a stricture prior to surgical intervention could lead to better surgical planning and lower complications.

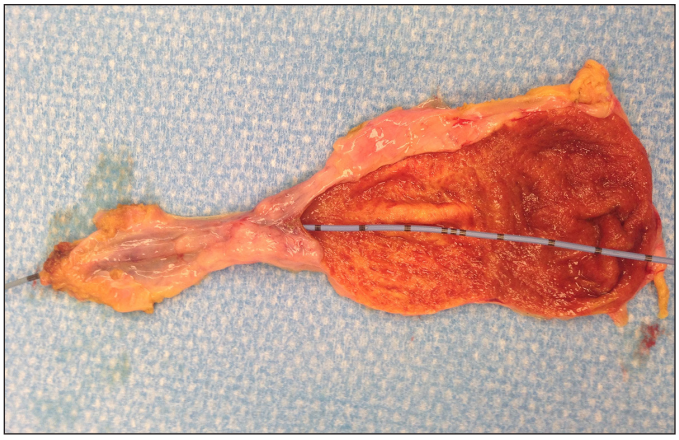

Figure 4. Gross image of the gallbladder stricture.

Disclosures

Author contributions: PP Patel wrote the manuscript and is the article guarantor. CS Swendsen edited and researched the manuscript. V. Nguyen edited the manuscript and supplied the images. D. Vu and K. Poole edited the manuscript. M. Bower and D. Flores supplied and edited the images.

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