Gallbladder Pseudodiverticulosis Mimicking a Multiseptate Gallbladder with Stones

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Gallbladder diverticula have the appearance of hernia-like protrusions of the gallbladder wall. This disorder may not be diagnosed until surgically resected because it has no clinical significance unless there are associated diseases. Gallbladder pseudodiverticula have an acquired cause, multiple fundal lesions, an association with gallstones, internal saccular lesions without external hernia-like protrusions, and little to no smooth muscle in the gallbladder wall. We report a unique anomaly of multiple pseudodiverticula presenting with calculous cholecystitis, which was pathologically different from true diverticula and had a unique shape similar to a bunch of grapes and a septation infilling pattern on endoscopic retrograde cholangiography. (Gut and Liver 2009;3:134-136)

Key Words: Gallbladder; Pseudodiverticulum

INTRODUCTION

Diverticular diseases of the gallbladder are unusual congenital or acquired diseases occurring only in 0.1% to 0.2% of cases in previous studies of resected gallbladder specimens.1-3 These diseases are divided into congenital (true) diverticula and acquired pseudodiverticula according to different developmental, clinical, and pathological features.4,5

We describe a unique imaging case of pseudodiverticulosis of the gallbladder mimicking multiseptate gallbladder accompanied with multiple stones, as confirmed by surgical operation.

CASE REPORT

A 70-year-old woman presented with right upper quadrant abdominal pain radiating to the right lower abdomen; the pain had begun to aggravate the subject 8 to 9 hours earlier. Her medical history contained no significant events or diseases. Clinical examination revealed mild tenderness in the right upper quadrant of the abdomen. Laboratory tests revealed the followings: white blood cell count, 8.900×10⁹/L; hemoglobin, 13.4 g/dL; amylase, 36 IU/L; aspartate aminotransferase, 42 U/L; alanine aminotransferase, 50 U/L; and alkaline phosphatase, 162 IU/L.

Fig. 1. Endoscopic retrograde cholangiography showing multiple linear septated radiolucent defects and multiple variable-sized saccular filling defects in the gallbladder lumen.
Abdominal ultrasonography revealed multiple hyperechoic lesions in the gallbladder and linear septum-like structures in the fundus of the gallbladder. Subsequently, endoscopic retrograde cholangiography (ERC) was performed to evaluate the lesion; it showed multiple linear septated radiolucent defects and a diffusely scattered bunch of grape-like saccular filling defects in the elongated gallbladder (Fig. 1). Operative findings showed a normal outer surface of the elongated gallbladder without any protruding lesions fixed on the gallbladder fossa of the liver (Fig. 2). Grossly, multiple black stones and a round saccular lesion with an intervening septum-like structure were noted on the dissected gallbladder specimen (Fig. 3). Microscopic findings showed mucosal gland structures downsloping into a thin muscle layer (characteristically, the muscle layer is not thickened), which was different from adenomyomatosis (Fig. 4).

**DISCUSSION**

Gallbladder anomalies are diversely classified according to the shape and position of the Phrygian cap, multiseptation, and diverticula. ERC can be helpful in making a diagnosis and in the differentiation of these anomalous