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Accessory liver lobe attached to the gallbladder wall preoperatively detected by ultrasonography: A case report

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ABSTRACT

INTRODUCTION: An accessory liver lobe is a rare developmental abnormality, which is often not diagnosed preoperatively, and is usually detected incidentally during abdominal surgery. This condition is often asymptomatic; here, we report on a case where the accessory liver lobe was diagnosed preoperatively using ultrasonography.
CASE PRESENTATION: A 59-year-old woman presented to our hospital with right upper abdominal pain. An abdominal ultrasonography indicated the presence of gallbladder debris and an accessory liver lobe. She underwent laparoscopic cholecystectomy and resection of the accessory liver lobe without any complications.
DISCUSSION: An accessory liver lobe is a rare anomaly of the liver. It is typically asymptomatic and is detected incidentally during surgery or autopsy in most cases. However, we diagnosed the accessory liver lobe using ultrasonography. An accessory liver lobe can occasionally result in complications, such as bleeding, portal vein obstruction, or malignant transformation to hepatocellular carcinoma.
CONCLUSION: An accessory liver lobe should be resected to prevent complications and malignant transformation. Ultrasonography is useful for preoperative diagnosis in cases with an accessory liver lobe.

1. Introduction

Different anatomic variations of the hepatic vasculature and biliary ducts have frequently been reported; however, an accessory liver lobe is a rare congenital anomaly [1]. An accessory liver lobe is defined as morphologic variation of the liver and is caused by excessive development [2]. The presence of an accessory liver lobe is seldom detected preoperatively because this condition is usually asymptomatic. Although, in rare cases, it can cause abdominal pain and liver dysfunction [3], and is typically detected incidentally during surgery or autopsy. Here we report on a rare preoperative diagnosis of an accessory liver lobe using ultrasonography.

2. Presentation of case

A 59-year-old female with right upper abdominal pain was admitted to our hospital. She had no relevant past medical or surgical history. Her abdomen was soft with no palpable masses. Abdominal ultrasonography revealed a high echoic area which appeared to be debris in the gallbladder and a 15-mm ellipse-shaped section of liver tissue in front of the gallbladder (Fig. 1). The laboratory data showed slight hepatic dysfunction, with an aspartate transaminase (AST) level of 47 U/L (0–40) and an alanine transaminase (ALT) level of 57 U/L (0–41). An enhanced abdominal computed tomography (CT) scan also showed the accessory liver lobe at the surface of the gallbladder (Fig. 2). Magnetic resonance imaging (MRI) also revealed the accessory lobe at the surface of the gallbladder (Fig. 3). She underwent laparoscopic cholecystectomy for gallstones. During the laparoscopy, an accessory liver lobe, 15 mm in size, was noted on the serosal surface of the gallbladder body with a connection to the main liver sections (Fig. 4). The pedicle was clipped, and this accessory liver lobe was removed together with the gallbladder. The histopathological evaluation of the specimen revealed the diagnosis of an accessory liver lobe due to the presence of normal liver structures without any malignant transformation (Fig. 5). The patient was discharged on the fourth postoperative day without any complications.

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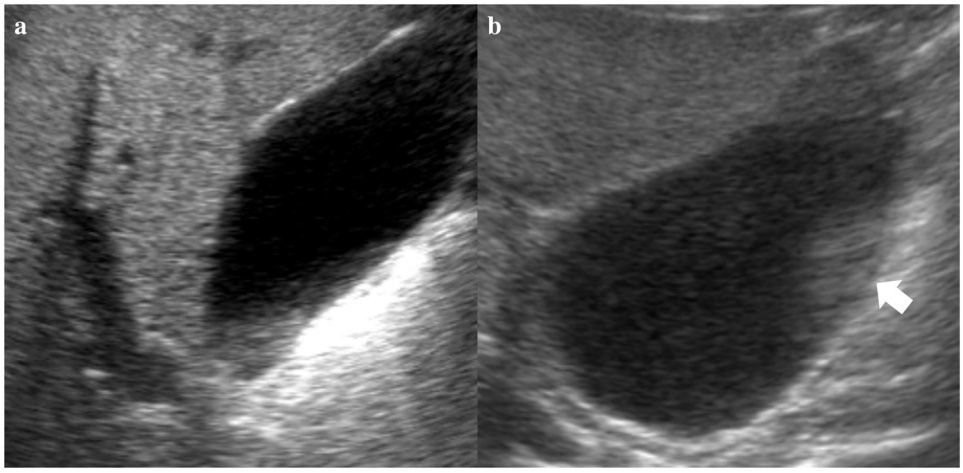

Fig. 1. Ultrasound sonography revealed a high echoic area which appeared to be debris in gallbladder (a) and a 15-mm ellipse-shaped section of liver tissue (arrow) attached in front of the gallbladder (b).

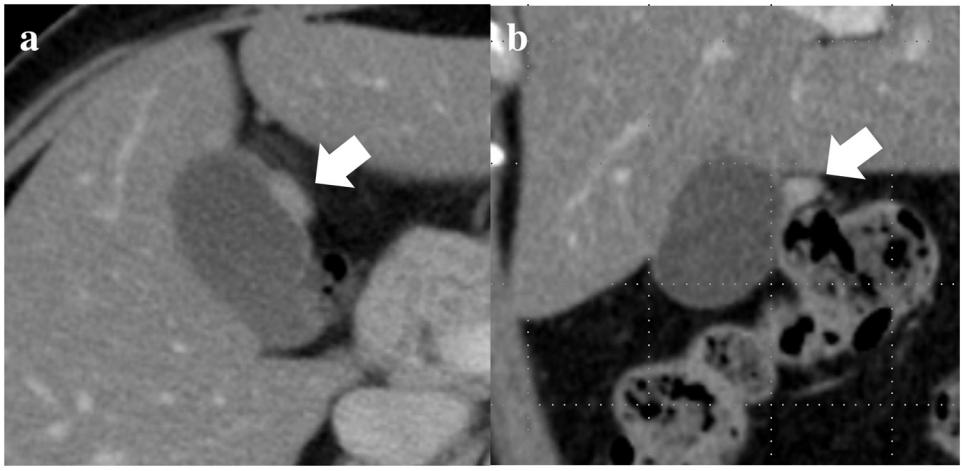

Fig. 2. Computed tomography shows the accessory lobe at the surface of gallbladder (arrows) in the (a) transverse plane and (b) the coronal plane.

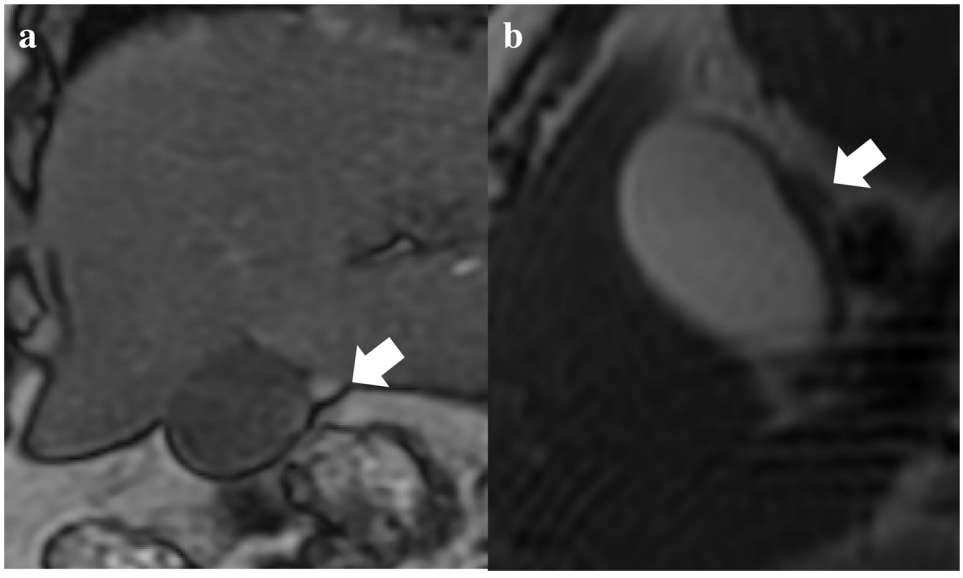

Fig. 3. A magnetic resonance imaging (MRI) scan shows the accessory lobe at the surface of gallbladder (arrows): (a) T1WI and (b) T2WI.