

# Spontaneous asymptomatic gallbladder perforation

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**Abstract:** Gallstone disease is common. However, a proportion of patients are asymptomatic and remain undiagnosed until the occurrence of complications. Common complications include acute cholecystitis, biliary obstruction, acute pancreatitis and cholangitis. Severe complications include gallbladder perforation, Mirizzi syndrome and fistula formation are usually associated with significant morbidity and mortality. We report a case of asymptomatic spontaneous gallbladder perforation due to acute cholecystitis.

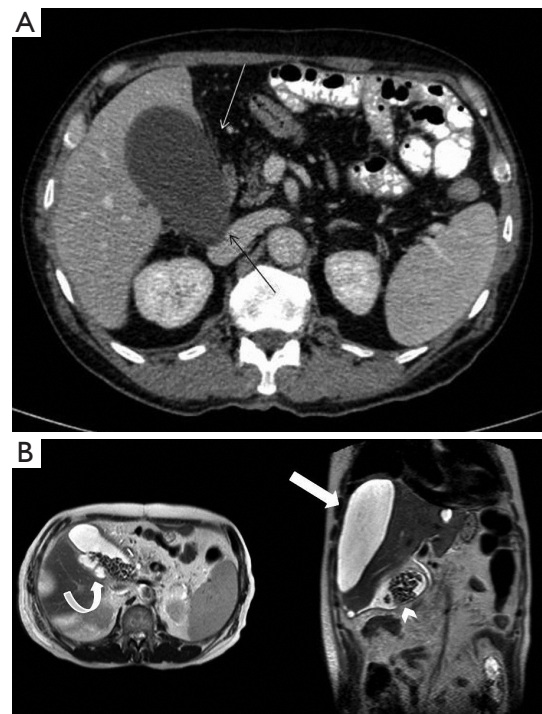
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A 67-year-old male patient was admitted to the emergency service with right upper quadrant pain, nausea and vomiting. In ultrasonography (US) examination there were gallbladder stones. An enhanced computer tomography (CT) examination was performed. Laboratory findings were normal at that time. As a result of US, CT and clinical findings, the patient was hospitalized. During the hospitalization there were new abnormalities in the laboratory tests. Aspartat aminotransferase, alanin aminotransferase, lactate dehydrogenase, gamma glutemil transferase, alkaline phosphatase, total and direct bilirubine results gradually increased. However, the patient was asymptomatic, pain and vomiting complaints decreased gradually. On the 4th day of his hospitalization, magnetic resonance imaging (MRI) was performed in order to check out intra and extrahepatic biliary tracts. In CT examination, there were distended gallbladder, pericholecystic fat heterogeneity and minimal fluid collection around the gallbladder (*Figure 1A*). The patient was diagnosed as acute cholecystitis and hospitalized. On MRI examination, discontinuity at the gallbladder wall and pericholecystic fluid collection was detected. A huge fluid collection was also noticed in the subcapsular area of the right lobe of the liver. The subcapsular fluid collection was in continuity with pericholecystic fluid. There were numerous millimetric stones inside of the gallbladder, as well (*Figure 1B*). The patient was diagnosed as gallbladder perforation. In this



**Figure 1** (A) Computed tomography scan, gallbladder distention, pericholecystic fat heterogeneity and minimal fluid collection around the gallbladder (thin arrows); (B) axial and coronal T2W Magnetic resonance imaging images, discontinuity at the gallbladder wall (curved arrow), pericholecystic fluid collection (thick arrow) and multiple gallstones (arrowhead).



**Figure 2** Pig-tail catheter is seen which was placed for drainage and treatment (thick arrow).

case, surgical management was not considered because of the patient's poor general condition. A pig-tail catheter was placed into the fluid collection for drainage and treatment (*Figure 2*).

Biliary systems perforations most frequently occur in gallbladder. Perforation is seen in 3-10% of patients with acute cholecystitis and commonly in elderly male patients (1). Perforation can occur as early as two days after acute

cholecystitis or several weeks later. The main reason for perforation is thought as occlusion of the cystic duct (generally by a stone). This results in retention of intraluminal secretions. As the intraluminal pressure increases venous and lymphatic drainage, it leads to vascular compromise to necrosis and perforation of the gallbladder (2). Other hypotheses for perforation include trauma, congenital abnormality, infection, pancreatic secretions, obstructions, calculi and abnormal bile (3).

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