

Treading on an Eggshell

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A 92 year old female with a medical history remarkable for essential hypertension and an episode of deep vein thrombosis presented to the emergency department following 2 days of drowsiness and jaundice. At admission, a fever of 38.5°C was recorded with stable vital signs. Physical examination revealed a deteriorated mental state; jaundiced skin and sclerae; and a distended, soft, non-tender abdomen with a negative Murphy's sign. Laboratory tests demonstrated raised inflammatory markers (leukocytosis, thrombocytosis, and an elevated C-reactive protein), direct hyperbilirubinemia (total bilirubin 5.78 mg/dl, direct 4.26 mg/dl), and elevated liver enzymes (alanine aminotransferase 202 U/L, alkaline phosphatase 426 U/L) with normal levels of pancreatic enzymes.

A plain abdominal film [Figure 1] demonstrated distended bowel loops and a large calcification in the right upper quadrant

(arrow) corresponding to the shape of the gallbladder. A computed tomography (CT) scan of the abdomen [Figure 2] confirmed the presence of calcification of the gallbladder wall (black arrow) and showed a distended common bile duct of 14 mm containing several large gallstones (white arrow). No signs of acute cholecystitis were present.

WHAT IS THE DIAGNOSIS?

Porcelain gallbladder denotes extensive calcification of the gallbladder wall, appearing as a large solitary calcification in the right upper quadrant on plain abdominal X-rays. The differential diagnoses include echinococcal cysts, calcified renal cysts, cystic lesions of the pancreas, calcified adrenal tumors, or in rare cases, an aneurysm of the abdominal aorta [1].

Confirmation of a gallbladder disease can be made by either ultrasound or CT of the abdomen (with equal sensitivity for both modalities) [2]. Porcelain gallbladder is suggestive of disease of the gallbladder and is associated with gallstones in over 90% of cases. Patients with porcelain gallbladder are at increased risk for carcinoma

of the gallbladder, and as such it is considered an indication for cholecystectomy [3].

The described patient was diagnosed with cholangitis based on the clinical, laboratory, and imaging findings. She was treated with wide-range antibiotics, high volume intravenous fluids, and nothing by mouth. Endoscopic retrograde cholangiopancreatography was contra-indicated due to significant co-morbidities. The patient deteriorated in the following days and eventually died.

The presented case illuminates the need to consider abdominal etiologies when searching for the source of sepsis in the internal medicine department.

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Figure 1. Plain abdominal film demonstrating a round calcification in the right upper quadrant (arrow)



Figure 2. Computed tomography demonstrating calcification and thickening of the abdominal wall (black arrow) and cholelithiasis (white arrow)

