

# Answer

## Acute and Chronic Cholecystitis With Abscess Formation

The prevalence of gallstone disease in the United States is 10% to 15%,<sup>1</sup> making it one of the most common gastrointestinal disorders. More than 70% of patients with gallstones are asymptomatic, with the yearly risk of developing biliary pain between 1% to 4%.<sup>2</sup> Complications of cholelithiasis include cystic duct obstruction, which may progress to acute cholecystitis, pancreatitis, cholecystenteric fistula, gallstone ileus, and increased risk of gallbladder carcinoma. Risk of acute cholecystitis in patients with symptomatic gallstone disease is approximately 1% to 3% per year.<sup>3</sup> Common risk factors for gallstones include obesity, pregnancy, multiparity, hyperlipidemia, and certain racial/genetic factors, such as being of Native American descent.

Patients with chronic cholecystitis typically develop biliary colic and epigastric and/or right upper quadrant pain that may radiate to the back or below the right scapula. Pain begins abruptly and persists for minutes to hours. In acute cholecystitis, patients experience unremitting biliary pain frequently accompanied by anorexia, nausea and vomiting, and low-grade fever. Physical examination may reveal right upper-quadrant tenderness, Murphy's sign (in which inspiration is arrested by pain on palpation of the inflamed gallbladder), and rarely a palpable gallbladder. Moderate leukocytosis, mild elevation of bilirubin (serum bilirubin <4.0 mg/dL in simple cholecystitis), and elevated alkaline phosphatase are seen in laboratory studies.

Ninety-five percent of cases of acute cholecystitis result from obstruction of the cystic duct by gallstones or biliary sludge. As a result of obstruction, chemical irri-

tation and inflammation of the gallbladder occur, which causes gallbladder dysmotility. Subsequent distention and elevated intraluminal pressure compromise blood flow to the gallbladder mucosa.

Diagnosis is confirmed with ultrasound scanning, which typically shows gallstones, gallbladder wall edema, pericholecystic fluid, and distended gallbladder. Biliary scintigraphy (hepatic iminodiacetic acid scan) can be performed if sonography is inconclusive. Results of scintigraphy may include absence of visualization of the gallbladder due to cystic duct obstruction.

Symptomatic chronic cholecystitis should be treated by cholecystectomy, as should acute cholecystitis. On removal, gross specimens of the gallbladder should be sent for pathologic evaluation to exclude gallbladder carcinoma, which is found in less than 0.5% percent of patients with gallstone disease.<sup>4</sup>

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