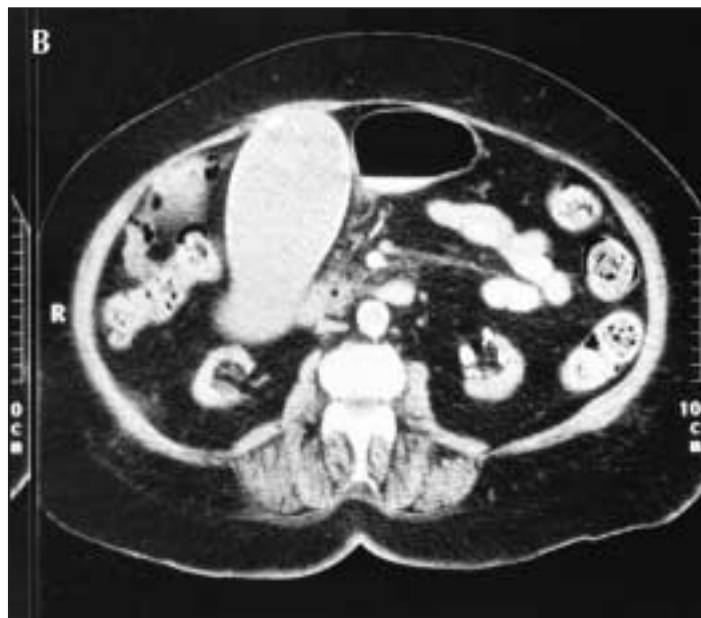


## Porcelain gallbladder



Courtesy: Lucie Opatry

A 65-year-old woman was admitted to hospital with osteomyelitis of her left fourth toe requiring intravenous antibiotic therapy. Her medical history included type 2 diabetes mellitus, chronic renal failure requiring hemodialysis and mitral stenosis. During the second week in hospital the patient was evaluated for a 1-day history of mild, generalized non-colicky abdominal discomfort. She had nausea but no vomiting and remained afebrile. The patient was obese, and the examination was notable only for diffuse distension. Liver enzyme levels and serum amylase and lipase levels were all within normal limits. Radiography of the abdomen revealed an ileus as well as a large calcified spherical mass in the right upper quadrant (Fig. 1A). A non-contrast CT scan was obtained, which revealed the mass to be a large calcified gallbladder (Fig. 1B).

After completion of the antibiotic therapy, prophylactic cholecystectomy was performed because of the reported association between porcelain gallbladder and cancer of the gallbladder. Pathology results revealed cholelithiasis and cholecystitis in addition to calcification of the gallbladder wall. There was no evidence of malignant disease.

The patient was discharged after an uneventful postoperative course.

The term “porcelain gallbladder” was coined in 1929 to describe the bluish discoloration and brittle consistency of a gallbladder with an extensively calcified wall.<sup>1</sup> Intramural gallbladder calcification is rare, with a reported incidence of 0.06%–0.8% of cholecystectomy specimens.<sup>2,3</sup> The cause remains unknown, but the vast majority of specimens have concurrent cholelithiasis, leading some authors to suggest that porcelain gallbladder is an unusual manifestation of chronic cholecystitis.<sup>2</sup> It is most commonly found in the sixth decade of life, with a female:male ratio of 5:1.

The incidence of cancer arising in porcelain gallbladders is widely quoted as varying from 12% to 62%.<sup>4,5</sup> These rates were based on retrospective studies and case series published in the 1950s and 1960s. However, recent reviews suggest that the association between porcelain gallbladder and cancer is less than previously suggested. A review of 10 741 records of cholecystectomies revealed 88 reports of cancerous gallbladders (none of which showed calcification) and 15 of

calcified gallbladders (none of which was associated with cancer).<sup>3</sup> Similarly, a review of about 25 900 cholecystectomy records identified 150 cases of gallbladder cancer and 44 of calcified gallbladder, with about 7% of the calcified specimens showing signs of cancer.<sup>6</sup> Given the poor prognosis of gallbladder cancer, current guidelines continue to recommend prophylactic cholecystectomy in cases of porcelain gallbladder.<sup>7</sup>

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