A 51-year-old woman was seen with a 1-day history of continuous pain in the right upper abdominal quadrant and emesis. On physical examination she had tenderness in that area and was afebrile. The leukocyte count and results of liver function tests were within normal limits. Computed tomography (Fig. 1) demonstrated focal thickening in the wall of the gallbladder fundus. Ultrasonography, which was limited by her abdominal panus, showed 3 gallstones within the gallbladder. The patient’s pain did not resolve when antibiotics were given intravenously. Cholecystitis in the absence of a leukocytosis was suspected, so radionuclide hepatobiliary scanning was done. It revealed a “hooked” gallbladder with delayed filling of the corpus and fundus (Fig. 2).

The patient underwent laparoscopic cholecystectomy. The operative specimen (Fig. 3) was folded in 2 locations, dividing it into 3 compartments, each containing a large gallstone. The pathologist noted chronic inflammatory changes. The woman was discharged from hospital on the first postoperative day.

The most common congenital anomaly of the biliary tract is a folded gallbladder.1 Boyden described this anomaly as a “Phrygian cap” deformity in 1935 because it resembled a bonnet worn by the ancient Phrygians,2 who lived in Asia Minor during the 12th century BC.3 This type of gallbladder is thought to empty at a normal rate and, in contrast to our patient’s experience, is not thought to be of clinical importance.1

Gallbladder kinking is suggested on radionuclide hepatobiliary imaging when the gallbladder initially appears smaller than the size of the gallbladder fossa and then fills distally on delayed images obtained after 2 and 3 hours.4 This deformity may also be suspected when its characteristic appearance is seen on high-resolution ultrasonography.1

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FIG. 1.

FIG. 2.
Recognition of a “Phrygian cap” gallbladder by nuclear scanning or sonography, with its potential for biliary stasis, cholelithiasis and cholecystitis, may warrant a prophylactic cholecystectomy.

References