A 65-year-old Hispanic female with significant cardiac and pulmonary problems presented to our clinic with complaint of infrequent episodes of right upper quadrant sharp abdominal pains occurring once or twice a year. A hepatic function panel was normal. An abdominal ultrasound was obtained and the image of the gallbladder is shown below.

Questions
1. What is your differential diagnosis?
2. Can our patient’s symptoms be explained by the findings on ultrasound?
3. What would you do next?
   a. Repeat ultrasonography every six months.
   b. Obtain another imaging study such as MRI or EUS.
   c. Recommend cholecystectomy.

(Answers and Discussion on page 68)

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ANSWERS AND DISCUSSION

1. Diagnosing gallbladder lesions on ultrasound can be tricky. Lesions that need to be differentiated include gallbladder polyps, gallstones, cholesterolosis, and adenomyomatosis. Approximately two thirds of gallstones are highly echogenic and produce an acoustic shadow. Shadowing is not determined by the composition of the gallstone, but is associated with size greater than 5 mm. Gallstones are generally mobile and move when the patient is repositioned.

Cholesterolosis (strawberry gallbladder) is characterized by lipid deposits in the lamina propria of the gallbladder. Cholesterolosis can produce single or multiple polypoid lesions in any part of the gallbladder and have no malignant potential. They are immobile without shadowing, and are best seen on radiographs made after partial emptying of the gallbladder.

Adenomyomatosis are deep outpouches in the surface epithelium of the gallbladder mucosa forming a “diverticulosis” of what are called Rokitansky-Aschoff sinuses. Radiographically, adenomyomatosis is best demonstrated with oral cholecystography and appears as multiple oval collections of radiocontrast often resembling a “string of beads.” Sonographically, adenomyomatosis is difficult to detect and can appear as focal or diffuse thickening of the gallbladder wall in association with anechoic cystic spaces. Whether or not adenomyomatosis portends a risk of gallbladder malignancy is a point of controversy.

True gallbladder polyps may be inflammatory or adenomatous. Inflammatory polyps almost always occur in the setting of chronic cholecystitis. Adenomatous polyps are rare, may be solitary or multiple, and occur most commonly in the fundus of the gallbladder. Adenomas have malignant potential and should be removed. Gallbladder cancer is a highly malignant tumor with a five year survival less than 5%.

2. Cholesterol polyps are known to break off from time to time and can obstruct the cystic duct.

3. The lesions on the ultrasound were noted to be polyps. Given the patient’s comorbidities, we needed to make a clinical assessment of the patient’s risk of cancer before recommending cholecystectomy. Risk factors for gallbladder cancer include presence of gallstones, age >65, polyps >10 mm, solitary polyps, sessile polyps, Hispanic and Native American heritage, presence of gallbladder wall calcification, and presence of anomalous biliary anatomy. In our case, given the patient’s age and Hispanic background, we recommended cholecystectomy. A few studies in recent years indicate that serial observations with Endoscopic ultrasound may be appropriate when surgical risk is high.

References