Technetium-99m-Disofenin Identification of an Intrahepatic Gallbladder: Case Report

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CASE REPORT

A case is presented involving a 47-yr-old gentleman who was having right upper quadrant pain. The patient had a sonogram which could not identify a gallbladder in the "normal" anatomic position. The sonogram did reveal a 3-cm cystic structure with thin but echogenic walls in the upper posterior right lobe of the liver (1). The question arose as to whether it was an abnormal gallbladder or the possibility of congenital absence of the gallbladder.

A hepatobiliary scan was performed. The patient was NPO for at least 6 hr and was injected with 2.5 mg synthetically-prepared cholecystokinin. The patient was then monitored for 10 min at which time the patient received a second injection of 5.25 mCi technetium-99m-disofenin and was imaged in a supine position with the gamma camera above the patient at 15-min intervals.

RESULTS

The nuclear hepatobiliary scan revealed even distribution of the tracer in the liver at 15 min. A structure could be seen in the superior and posterior aspects of the right lobe of the liver at 30 min (Fig. 1). Following the rest of the images through 2 hr, one can see the filling of the intrahepatic gallbladder along with the characteristic biliary dynamics. The images also reveal that the liver drained in a complete manner while the structure continued to fill (2).

DISCUSSION

While other etiologies such as simple hepatic cyst or an hemangioma should be considered, it was advised that the patient have a limited computed tomography scan to follow up the previous studies. The incidence of congenitally absent gallbladder is only 0.13% of the population (3). The problem with such congenital anomalies in the anatomy of the liver is the influence of the normal dynamics of biliary function. The gallbladder has a tendency in a case such as this to have difficulty contracting and tends to become infected, with the possibility of gallstone formation (4). It seems that the only real concern in this case of an intrahepatic gallbladder is the...

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FIG. 1. Hepatobiliary scan reveals intrahepatic gallbladder in the superior and posterior aspects of the right lobe beginning at 30 min.
problem of a cholecystectomy being more difficult if that would be the course of action (5).

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REFERENCES