

POSTER NUMBER 3

Title: Added Value of Hepatobiliary Scintigraphy to Ultrasound and CT Scan for Detection and Functional Evaluation of Duplicate Gallbladder: A Case Report

Authors: Hossein Mehdikhani MD, Sherif Heiba MD, Lale Kostakoglu MD MPH

Authors' affiliation: Department of Radiology
The Icahn School of Medicine at Mount Sinai
One Gustave L. Levy Place, Box 1141
New York, NY 10029-6574

Corresponding author: Hossein Mehdikhani, MD
Resident of Nuclear Medicine
Department of Radiology
The Icahn School of Medicine at Mount Sinai
One Gustave L. Levy Place, Box 1141
New York, NY 10029-6574
Email: hosseinmehdikhani@gmail.com
mehdih01@mountsinai.org
Cell: [920-809-4125](tel:920-809-4125)

Abstract:

Purpose: To describe the potential added clinical value of HIDA scan compared with ultrasound and CT in diagnostic workup of patients with suspicious hepatobiliary anomalies

Case: A 65 year old male with recent exploratory laparotomy for partial small bowel obstruction presented with dyspnea and leukocytosis. CT angiography of chest excluded pulmonary embolism. A hepatic cyst adjacent to the gallbladder was initially reported in abdominopelvic CT with contrast. Ultrasound showed gallbladder sludge with wall thickening and pericholecystic fluid in the absence of Murphy's sign, indeterminate for cholecystitis. A complex hepatic cyst in the left hepatic lobe was also reported. In follow up, HIDA scan with morphine administration revealed normal hepatocellular tracer extraction and clearance into the common bile duct and small intestine. There was a filling area medial to the expected location of the gallbladder corresponding to the cyst visualized in the contrast-enhanced CT without visualization of the GB itself. In addition, SPECT-CT images of the abdomen further confirmed a focus of tracer accumulation medial to the gallbladder fossa. In retrospect, the initially assumed thickened gallbladder with adjacent cyst in the diagnostic CT was characterized by the radiologist as a duplicated gallbladder which the medial portion (and not the lateral portion) filled with radiotracer in HIDA scan.

Conclusion: In addition to assessment for obstruction and function of the hepatobiliary system, HIDA scan can add anatomical value to ultrasound and CT in detection of hepatobiliary anomalies such as duplicated gallbladder.



Figure 1- Abdominal ultrasound

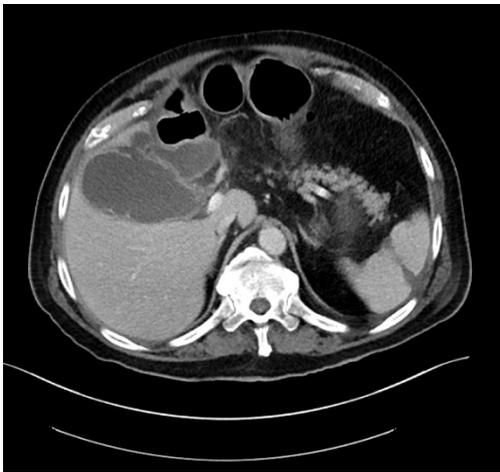


Figure 2- Contrast-enhanced CT



Figure 3- Planar HIDA prior to morphine administration

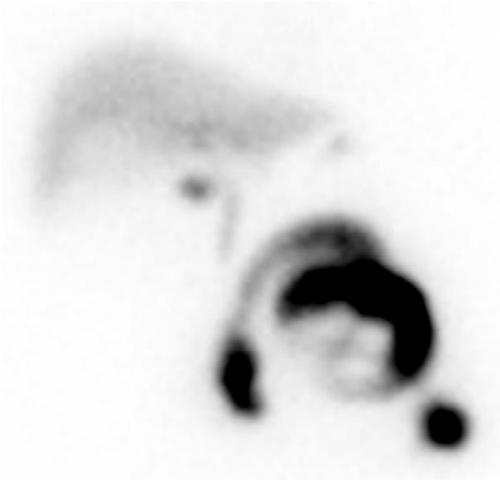


Figure 4- Post-morphine planar HIDA



Figure 5- HIDA SPECT-CT