

LIVER-SPLEEN with SPECT
UPDATED: APRIL 2011

CPT CODE: 78215 Liver Spleen
78205 Liver SPECT

Indications:

- Confirm presence of Kupffer cells (benignity) for lesions seen by other imaging modalities (e.g., focal nodular hyperplasia)
- Confirm presence of spleen (with SPECT and/or hepatobiliary scan, CPT Code 79223)
- Assess splenomegaly
- Assess diffuse hepatic disease
- Identify focal defects (cysts, metastases, abscesses, hemangiomas, etc.)
- Identify hepatic and splenic trauma

Patient Prep:

None.

Scheduling:

90-minutes patient time.

Radiopharmaceutical

& Dose:

Tc-99m-sulfur colloid 6 mCi +/- 20% (4.8-7.2 mCi). Dose will be adjusted for patient weight per nomogram or NMIS.

Imaging Device:

GE Infinia with Hawkeye and LEHR collimator.

Imaging Procedure:

Both Planar and SPECT/CT imaging will be performed unless the specific patient is protocolled differently.

Planar

Anterior, Posterior, Lateral, and Oblique (8 views total)
800 K counts per view

SPECT

SPECT liver tomo
128 x 128 Matrix
View angle = 6°
30 seconds/stop

Philips

Reconstruction + display
Use interactive reconstruction
Use low pass filter
2-pixel slice thickness

Infinia

Reconstruct using Oncology SPECT protocol
Filter ~ Hanning 0.8
2-pixel slice thickness

Display:

Screen capture all 8 planar images.
SPECT transaxial, sagittal, and coronal images displayed in 2-pixel slices (ScreenCap)

PACS: Send planar and SPECT images to PACS. For SPECT/CT, the transaxial SPECT and CT data sets should be sent to PACE and MIP.

Interpretation: Abnormalities present as cold spots regardless of etiology (tumor, abscess, cyst, trauma, etc.). The scan can be performed in transplants where regional infarcts occur (wedge shaped).

Diffuse hepatic dysfunction is manifest with these signs appearing progressively as severity increases. Relative increase in size of left lobe of liver, generalized hepatomegaly, nonhomogeneous hepatic tracer distribution, increase in relative splenic uptake, increase in the size of the spleen, increase in bone marrow uptake, increase in lung uptake and finally ascites (separation of liver and bone or lung activity) and decrease in the size of the liver.

Comments: A Nuclear Medicine staff or resident physician should be consulted to determine if additional views are indicated. Before the patient leaves, a Nuclear Medicine staff or resident physician should check scans to determine if format size needs to be changed.

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