

RIH – THREE PHASE LIVER CT GE LIGHTSPEED VCT PROTOCOL

Indications: HCC, cirrhosis, hypervascular lesions/mets.

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| Position/Landmark | Head first or feet first-Supine Xyphoid |
| Topogram Direction | Craniocaudal |
| Respiratory Phase | Inspiration |
| Scan Type | Helical |
| KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction | 120kv / smart mA (120-500) / 0.5 sec .984:1 , 39.37mm 11.0 / 70 / 20% |
| Detector width x Rows = Beam Collimation | 0.625mm x 64 = 40mm |
| Average Tube Output | Each Helical: ctdi – 10.7mGy dlp – 313 mGy.cm |
| First Helical Set | body thickness/ recon part spacing algorithm recon destination . |
| Slice Thickness/ Spacing | 1 non con liver 5mm x 5mm standard pacs |
| Algorithm | 2 thin nc liver .6mm x .6mm standard for dmpr |
| Recon Destination | |
| Second Helical Set | body thickness/ recon part spacing algorithm recon destination . |
| Slice Thickness/ Spacing | 1 arterial liver 5mm x 5mm standard pacs |
| Algorithm | 2 thin arterial liver .6mm x .6mm standard for dmpr |
| Recon Destination | |
| Third Helical Set | body thickness/ recon part spacing algorithm recon destination . |
| Slice Thickness/ Spacing | 1 venous liver 5mm x 5mm standard pacs |
| Algorithm | 2 thin venous liver .6mm x .6mm standard for dmpr |
| Recon Destination | |
| Scan Start / End Locations | 1 cm superior to diaphragm iliac crest (scan through entire liver) |
| DFOV | 38cm decrease appropriately |
| IV Contrast Volume / Type / Rate | 100mL Iohexol (Omnipaque 350) 4mL/sec |
| Scan Delay | Non-Contrast Arterial Venous ----- 40 seconds 70 seconds |
| 2D/3D Technique Used | DMPR of 5mm x 5mm coronal liver series (auto-batch on), average mode, auto-transferred to PACS of each phase . |
| Comments: | The second and third helical sets are two separate groups in the contrast series called “dynamic liver” |
| Images required in PACS | Scouts, 5mm x 5mm axial nc liver, 5mm x 5mm coronal nc liver, 5mm x 5mm axial arterial liver, 5mm x 5mm coronal arterial liver, 5mm x 5mm axial venous liver, 5mm x 5mm coronal venous liver, Dose Report |