

RIH – RF THREE PHASE KIDNEY – RENAL INSUFFICIENCY GE LIGHTSPEED VCT PROTOCOL

Indications: To evaluate and characterize a known renal mass before and after tumor ablation on patients with chronic renal insufficiency.

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	100kv / smart mA (120-600) / 0.5 sec .984:1 , 39.37mm 15 / 70 / 30%			
Detector width x Rows = Beam Collimation	0.625mm x 64 = 40mm			
Average Tube Output	Each Helical: ctdi – 14.7 mGy dlp – 413 mGy.cm			
First Helical Set	<u>recon</u>	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	non con kidneys	2.5mm x 2.5mm	pacs
Algorithm	2	thin nc kidneys	.6mm x .6mm	for dmpr
Recon Destination				
Second Helical Set	<u>recon</u>	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	cortical kidneys	2.5mm x 2.5mm	pacs
Algorithm	2	thin cortical kidneys	.6mm x .6mm	for dmpr
Recon Destination				
Third Helical Set	<u>recon</u>	body part	thickness/ spacing	recon destination .
Slice Thickness/ Spacing	1	delayed kidneys	2.5mm x 2.5mm	pacs
Algorithm	2	thin delayed kidneys	.6mm x .6mm	for dmpr
Recon Destination				
Scan Start / End Locations	1 cm superior to diaphragm iliac crest (scan through entire kidneys) 38cm			
DFOV	decrease appropriately			
IV Contrast Volume / Type / Rate	50mL Iohexol (Omnipaque 350) 3mL/sec			
Scan Delay	Non-Contrast -----	Cortical 50 seconds	Delayed 3 minutes	
2D/3D Technique Used	DMPR of 2.5mm x 2.5mm coronal abdomen series (auto-batch on), average mode, auto-transferred to PACS of each phase .			
Comments:	This protocol consists of a non contrast series, and then a cortical phase iv contrast series, then a delayed series. The patient will likely be hydrated with 500cc saline before and after the ct scan.			
Images required in PACS	Scouts, 2.5mm x 2.5mm axial nc kidneys, 2.5mm x 2.5mm coronal nc kidneys, 2.5mm x 2.5mm axial cortical kidneys, 2.5mm x 2.5mm coronal cortical kidneys, 2.5mm x 2.5mm axial delayed kidneys, 2.5mm x 2.5mm coronal delayed kidneys, Dose Report			