

RIH - BRAIN VENOGRAM GE LIGHTSPEED VCT PROTOCOL

Application: cerebral venous thrombosis

Position/Landmark	Supine head first or feet first Zero at outer canthus of eye.			
Topogram Direction	Craniocaudal			
Respiratory Phase	Any			
KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction	nc brain 120kv / smart mA (50-350) / 0.5 sec 0.531:1 , 10.62mm 6.5 / 20 / 20%		venogram brain 120kv / smart mA (100-450) / 0.5 sec 0.969:1 , 19.37mm 10.0 / 20 / 20%	
Detector width x Rows = Beam Collimation	0.625mm x 32 = 20mm			
Average Tube Output	nc brain ctdi – 51.1 mGy dlp – 872 mGy.cm		venogram brain ctdi – 11.1 mGy dlp – 252 mGy.cm	
KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction	120kv / smart mA (50-350) / 0.5 sec 0.531:1 , 10.62mm 6.5 / 20 / 20%		120kv / smart mA (100-450) / 0.5 sec 0.969:1 , 19.37mm 10.0 / 20 / 20%	
First Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part 1 thin brain	thickness/ spacing .6mm x .6mm	recon destination . algorithm standard for dmpr
Second Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part 1 venogram brain	thickness/ spacing .6mm x .6mm	recon destination . algorithm soft for dmpr/pacs
Scan Start / End Locations DFOV	nc brain 1cm inferior to skull base skull vertex 25cm		venogram brain 1cm inferior to skull base skull vertex 18cm decrease appropriately	
IV Contrast Volume / Type / Rate	80mL Iohexol (Omnipaque 350) / 4mL per second			
Scan Delay	30 seconds			
2D/3D Technique Used	DMPR: 5mm x 5mm axial and coronal nc brain reformats in the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS DMPR: Axial, sagittal, and coronal cta reformats, 10.0mm x 5.0mm, mip mode (auto-batch on)			
Comments:	A non-contrast brain is done first. The venogram brain recon is a thin soft algorithm for reformats.			
Images required in PACS	Scouts, 5mm x 5mm axial nc brain, 5mm x 5mm coronal nc brain, .6mm x .6mm axial brain venogram, 10mm x 5mm axial venogram mip, 10mm x 5mm sagittal venogram mip, 10mm x 5mm coronal venogram mip, Dose Report			