

## RIH - BRAIN VENOGRAM GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL

**Application: cerebral venous thrombosis**

<b>Position/Landmark</b>	Supine head first or feet first Zero at outer canthus of eye.			
<b>Topogram Direction</b>	Craniocaudal			
<b>Respiratory Phase</b>	Any			
<b>Scan Type</b>	Helical			
<b>KV / mA / Rotation time (sec)</b>	120kv / smart mA (50-210) / 0.5 sec		120kv / smart mA (100-400) / 0.5 sec	
<b>Pitch / Speed (mm/rotation)</b>	.562:1 , 5.62mm		938:1 , 9.37mm	
<b>Noise Index / ASiR / Dose Reduction</b>	10 / 20 / 20%		7 / 20 / 20%	
<b>Detector width x Rows = Beam Collimation</b>	0.625mm x 16 = 10mm			
<b>Average Tube Output</b>	nc brain ctdi – 46.1 mGy dlp – 742 mGy.cm		venogram brain ctdi – 11.1 mGy dlp – 252 mGy.cm	
<b>First Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part thin brain	thickness/ spacing .6mm x .6mm	recon destination algorithm standard for dmpr
<b>Second Helical Set</b> Slice Thickness/ Spacing Algorithm Recon Destination	recon	body part <b>venogram brain</b>	thickness/ spacing .6mm x .6mm	recon destination algorithm soft for dmpr/pacs
<b>Scan Start / End Locations</b>  <b>DFOV</b>	nc brain 1cm inferior to skull base skull vertex 25cm		venogram brain 1cm inferior to skull base skull vertex 18cm  decrease appropriately	
<b>IV Contrast Volume / Type / Rate</b>	90cc omni 350 / 4cc per second			
<b>Scan Delay</b>	30 seconds			
<b>2D/3D Technique Used</b>	DMPR: 5mm x 5mm <b>axial brain reformats</b> in the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS  Axial reformats, 10.0mm x 3.0mm, mip mode (auto-batch on) Sagittal and coronal reformats 1.0 mm x 1.0, mip mode (auto-batch on) All of these reformats should be done using DMPR.			
<b>Comments:</b>	A non-contrast brain is done first. The venogram brain recon is a very thin soft algorithm for reformats. Axial reformats, 20.0mm thick x 3.0mm, mip mode and 10mm thick x 5.0mm, mip mode using DMPR are routine for this protocol.			
<b>Images required in PACS</b>	Scouts, 5mm x 5mm axial nc brain, .6mm x .6mm axial brain venogram, 20mm x 3mm axial venogram mip, 1mm x 1mm sagittal venogram mip, 1mm x 1mm coronal venogram mip, Dose Report			