Gundersen Health System

Angio Head & Head Venogram (non DE) Siemens go.All

Application Examples: cerebral vascular abnormalities

Oral Contrast	No
IV Contrast / Volume	75 mL Omnipaque 350
Injection Rate	5 mL/sec

Technical Factors

Care Bolus ROI Location / HU	*see scan instructions
Monitoring Delay	10 seconds
Cycle Time	0.99 seconds
Scan Delay	4 seconds
Breath Hold	N/A

Angio Head	
Detector Collimator	Acq 32 x 0.7mm
Care kV	Semi / 100 kV
Care Dose 4D	On / 110 mAs
Rotation Time (seconds)	0.33
Pitch	1.10
Typical CTDIvol	25.24 mGy ± 50%

Head Venogram	
Scan Delay	40 seconds
Detector Collimator	Acq 32 x 0.7mm
Care kV	Semi / 100 kV
Care Dose 4D	On / 110 mAs
Rotation Time (seconds)	0.33
Pitch	1.10
Typical CTDIvol	25.24 mGy ± 50%

Topogram: Lateral, 256 mm

Angio Head	Recon Type	Width / Increment	Algorithm	Safire	Window	FoV	Series Description	Networking	Post Processing
Recon 1	Axial	0.6 x 0.6	Hv36	2	Angio	160	AXIAL	PACS & TR	Rotating MIP & VR
Recon 2	3D:COR	1x 1	Hv44	2	Angio	-	COR MIP 1.0	PACS	Coronal MIP
Recon 3	3D:SAG	1x 1	Hv44	2	Angio	-	SAG MIP 1.0	PACS	Sagittal MIP
Recon 4	3D:AXIAL	10 x 4	Hv40	2	Angio	-	HEAD AXIAL MIP	PACS	Axial MIP
Recon 5	3D:COR	10 x 4	Hv40	2	Angio	-	HEAD COR MIP	PACS	Coronal MIP
Recon 6	3D: SAG	10 x 4	Hv40	2	Angio		HEAD SAG MIP	PACS	Sagittal MIP
Recon 7	VRT 3D SPIN (Regional)	Radial Ranges(36)	Br 40	2	Pelvis	-	VRT 3D SPIN	PACS	3D
Recon 8	MIP SPIN	Radial Ranges (24)	Bv36	2	Bone	-	MIP SPIN	PACS	3D

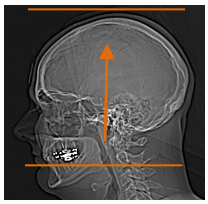
Head CTV	Recon Type	Width / Increment	Algorithm	Safire	Window	FoV	Series Description	Networking	Post Processing
Recon 1	Axial	1 x 1	Hv36	2	Cerebrum	200	AXIAL	PACS	None
Recon 2	3D:COR	2 x 2	Hv36	2	Angio	-	COR MIP	PACS	Coronal MIP
Recon 3	3D:SAG	2 x 2	Hv36	2	Angio	-	SAG MIP	PACS	Sagittal MIP
Recon 4	Axial	0.6 x 0.6	Hv36	2	Angio	200	AXIAL 0.6 STND	TeraRecon	3D

IV Placement: ≥ 18 gauge, *preferably* in antecubital (AC) fossa.

Patient Preparation: Have patient remove any detachable dental work.

Patient Position: Patient lying supine with arms at sides. Tuck chin slightly and position head so the sella is parallel to the gantry in a symmetrical position (no rotation or tilt).

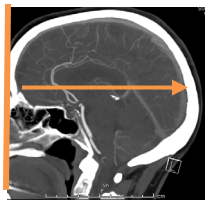
Scan Range: Begin at C2 and scan through skull vertex.



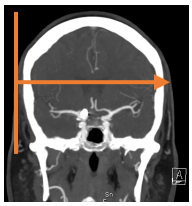
Scan Instructions: Take pre-monitoring around level of carotid bifurcations(Level of C2) and place ROI in air. Manually trigger scan as soon as first blush of contrast is in carotid arteries.

Recons and Reformations: Center on Circle of Willis (COW). Make coronal, sagittal 1x1 MIPS, coronal, sagittal and axial 10x4 MIPs from first series, and coronal and sagittal 2x2 MIPs from second series. (C2 through vertex) Orientated to sella as depicted below, align data perpendicular to the floor of the sella (coronal), inter-hemispheric fissure (sagittal), and parallel to sella (axial).

Coronal MIP
All



Sagittal MIP
All



Axial MIP
10x4

3D: Rotating MIP and VR from-CTA (Angio)-- (Regional sites this will be done on scanner)
VR coronal, sagittal, right and left oblique views from- CTV(Venogram)
See post processing protocol of each for further details.

EPIC Codes: Ordered as two exams—CT Angio Head and CT Head Venogram. Use CTA order for all images then cancel CT Venogram.