CTA Runoff (Aorta/Iliofemoral)

Updated
4/27/2024

Indications - peripheral artery disease, claudication, ischemia, absent pulses, aneurysm, trauma.
Bill under CT Angiography Abd Aorta + Iliofemoral charge.

GENERAL SCAN NOTES

Move the patient's arms over his/her head if possible. Remove any metal from the imaging field of view.
Topogram - lung bases through toes (obtained during end inspiration).
Craniocaudal scan coverage - lung bases through toes (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

Administer weight-based **Omnipaque-350** - **1 mL/kg** up to **150 mL** (100 mL minimum).
Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.
Bolus track off **proximal abdominal aorta** triggered at **100 HU**.

Oral Contrast: generally not given for this protocol.
For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

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SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	150	on	NA	1.15	16	1.5	0.5	23.6
Go Up 32	spiral	110	124	on	on 155	1.00	32	0.7	0.8	46.4
Sensation 64	spiral	120	150	on	NA	1.20	64	0.6	0.5	28.2
Definition 64	spiral	120	120	on	on	0.85	64	0.6	0.3	23.9
Go Top 64	spiral	100	136	on	on 155	0.35	64	0.6	0.5	48.4
Drive 128	spiral	120	84	on	on	0.60	128	0.6	0.5	28.2
Force 192	spiral	110	90	on	on	0.60	192	0.6	0.5	18.8

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Anatomy	Recon Direction
AX ANGIO	3.0	3.0	Br40 / B41f	mediastinum	3	AP thru feet	head/feet
AX ANGIO THINS	1.0 2.0 (16 slice)	1.0 2.0 (16 slice)	Br40 / B41f	mediastinum	3	AP thru feet	head/feet
COR ANGIO AP	2.0	2.0	Br40 / B41f	mediastinum	3	AP	front/back
SAG ANGIO AP	2.0	2.0	Br40 / B41f	mediastinum	3	AP	left/right
3D VRT (spin)	0.75	0.5	Bv36 / B31f	CT angio			
COR ANGIO UPPER	2.0	2.0	Br40 / B41f	mediastinum	3	thighs	front/back
SAG ANGIO UPPER	2.0	2.0	Br40 / B41f	mediastinum	3	thighs	left/right
3D VRT (spin)	0.75	0.5	Bv36 / B31f	CT angio			
COR ANGIO LOWER	2.0	2.0	Br40 / B41f	mediastinum	3	lower legs	front/back
SAG ANGIO LOWER	2.0	2.0	Br40 / B41f	mediastinum	3	lower legs	left/right
3D VRT (spin)	0.75	0.5	Bv36 / B31f	CT angio			

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GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	50-380	16.36	on	2.5	20	1.750	35.00	0.6	NA	NA	22.3
Opt 540	helical	large	120	50-380	16.36	on	2.5	20	1.750	35.00	0.6	NA	NA	22.3
LS VCT 64	helical	large body	120	100-610	14.14	on	2.5	40	1.375	55.00	0.5	0	0	11.8
Disc VCT 64	helical	large body	120	100-515	14.14	on	2.5	40	1.375	55.00	0.5	0	0	11.8

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Anatomy	Recon Direction
AX ANGIO	**2.5**	**2.5**	**std full**	**400/40**	**AP thru feet**	**head/feet**

This must be the first recon for the prescribed Noise Index to be valid.

AX ANGIO THINS	1.25	1.25	std full	400/40	AP thru feet	head/feet
COR ANGIO AP	2.0	2.0	std full	400/40	AP	front/back
SAG ANGIO AP	2.0	2.0	std full	400/40	AP	left/right
3D VRT (spin)	0.625	0.625	std full	400/40		

COR ANGIO UPPER	2.0	2.0	std full	400/40	thighs	front/back
SAG ANGIO UPPER	2.0	2.0	std full	400/40	thighs	left/right
3D VRT (spin)	0.625	0.625	std full	400/40		

COR ANGIO LOWER	2.0	2.0	std full	400/40	lower legs	front/back
SAG ANGIO LOWER	2.0	2.0	std full	400/40	lower legs	left/right
3D VRT (spin)	0.625	0.625	std full	400/40		

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PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	103	20	on	1.00	64	0.625	0.75	24.4

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Anatomy	Recon Direction
AX ANGIO	3.0	3.0	B	mediastinum	3	AP thru feet	head/feet
AX ANGIO THINS	1.0	1.0	B	mediastinum	3	AP thru feet	head/feet
COR ANGIO AP	2.0	2.0	B	mediastinum	3	AP	front/back
SAG ANGIO AP	2.0	2.0	B	mediastinum	3	AP	left/right
3D VRT (spin)	0.75	0.5					
COR ANGIO UPPER	2.0	2.0	B	mediastinum	3	thighs	front/back
SAG ANGIO UPPER	2.0	2.0	B	mediastinum	3	thighs	left/right
3D VRT (spin)	0.75	0.5					
COR ANGIO LOWER	2.0	2.0	B	mediastinum	3	lower legs	front/back
SAG ANGIO LOWER	2.0	2.0	B	mediastinum	3	lower legs	left/right
3D VRT (spin)	0.75	0.5					