CTA BRAIN 16 Emotion

Indications	Severe Headache, dizziness, memory loss, slurred speech, blurred vison, weakness
Diagnostic Task	Detect Vascular disease, aneurysm evaluation, Acute Stroke
Scan Mode	Helical
Position/Landmark	Head first -Supine1cm superior to skull vertex-Craniocaudal
Topogram	Lat mA 25 kV AP 110kV 25mA
kVp/Reference mass	NC brain 130kV 320 mAs// CTA 130kV 200mAs
Rotation time/pitch	NC brain 1/0.55//CTA 0.6/0.85
Detector Configuration	NC brain 16x0.6//CTA 16x0.6
Table Speed/Increment	NC brain 5.78//CTA 8.16
Dose reduction	na//CareDose 4D
Allowed CTDI ranges*	30mGy-80mGy
XR29 Dose Notification value	80mGy

helical Set Non-con brain

recon	body part	thickness spacing	kernel	window	recon destination
1	brain	1mmx 1mm	31medium smooth	cerebrum	pacs
2	axial brain	5mmx 5mm	31medium smooth	cerebrum	pacs
3	axial skull bone	1mmx1mm	H60s sharp	neuro bone	pacs
4	thin axial brain	1.5mmx .5mm	31medium smooth	cerebrum	mpr
5	Sag Brain	1mmx1mm	31medium smooth	cerebrum	pacs
6	Coronal Brain	1mmx1mm	31 medium smooth	cerebrum	pacs

Helical Set-CTA

recon	body part	thickness spacing	kernel	window	recon destination
1	brain cta	.75mmx.7	20 smooth	mediastinum	pacs/mpr
2	axial cta cow MIP	20mmx5mm	20smooth	mediastinum	pacs
3	sag cow MIP	5mmx2mm	20smooth	mediastinum	pacs
4	coronal cow MIP	5mmx2mm	20smooth	mediastinum	pacs
5	sag brain MPR	1mmx1mm	20smooth	mediastinum	pacs
6	coronal brain MRP	1mmx1mm	20smooth	mediastinum	pacs

Scan Start	NC brain 1cm below maxilla in include sinus//CTA two inches below base of skull
END	NC brain 1cm above skull vertex//CTA 1cm above skull vertex
DFOV	nc brain:25cm cta:18cm decrease appropriately
IV contrast volume	80 isovue 370 4cc/sec-Performed as directed by the supervising radiologist
	contrast should be injected into RT arm if possible
Scan Delay	bolus track at c3, trigger is + 90
Note*	The Diagnostic Reference Dose (CTDI vol) is 75mGy(with 16cm CTDI phantom). The pass/fail limit (ACR and Washington state) is 80mGy. Most routine head scans on modern scanners have CTDIvol ranges between 40 and 60mGy.

*The AAPM recommended NEXA XR29 Dose Notification Value for an adult head is 80mGy. The maximum CTDIvol should match the dose notification value. Exams with CTDI vol values less than the minimum allowed range should not be performed unless approved by a radiologist.

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Approved by Dr Walker