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Program :- Radiology (6th)

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Q 2:-

Indications:-

sinusitis, polyps, post-nasal drip. #
facial bones.
anosmia (see comments).

patient preparation:-

supine/Head first, taking ~~ST~~ care to position
head symmetrically.

Always ask if patient has had of
previous surgery and when it was
performed, and document.

Imaging protocol: (sinuses HCT 5mm 10.5mm)

Scan slice Thickness	0.5mm x 64
pitch	Detail
Kv	120
MA	150 "
Rotation Time	0.5s

scan range :-

Start Below maxillary sinuses
End above frontal sinuses
plane parallel to hard palate

Image reconstruction :-

5/5 mm Bone Sharp
volume Bone Sharp

Reformatting :-

multiview

coronal

sagittal

Plane	perpendicular to hard plates	perpendicular to
start	Anterior to frontal	hard plate.
End	posterior to sphenoids	medial wall of left orbit
Thickness	2mm	medial wall of right orbit
spacing	2mm	2mm
		2mm

- If there is a single opaque sinus or completely opaque sinus. 5/5 mm axial sections, "IGM - soft tissue reconstruct standard.

Q 4 :-

Indications :-

Tarsal coalition, talus or calcaneal of pathology, ankle joint pathology, loose bodies.

Patient preparation :-

supine feet first, ankle of interest at center of FDV, other leg bent up
Ankle/foot immobilized

Imaging Protocol: (Ankle/foot 2mm to 5mm)

Scan	slice	Thickness	0.5mm x 4
Pitch		Detail	
KV		120	
MA		100	
Rotating Time		0.55	

Scan range :-

Start Above ankle joint
End Below calcaneum
plane straight gantry

Image reconstruction :-

212 mm Bone Sharp
volume Bone Sharp
volume for 3D Soft tissue standard

Reformatting :-

plane	True Coronal	True Sagittal
start	posterior to calcaneum	L to fibula
End	Anterior to navicular	M to tibia
Thickness	2mm	2mm
Spacing	2mm	2mm

comments :-

If fractured then 3Ds are required

Q 5:-

Indications: Investigation of CAD, assessment of coronary stents.

Note: we recommend our 10-step guide to coronary CTA for detailed instructions for performing these studies.

patient positioning set-up :-

supine feet first
ECG dots placed on chest, arms above head.

Imaging protocol: (cardiac CTA 105mm)

Scan slice thickness	0.5mm x 64
pitch	determined by cardiac
KV	120
mA	400
Rotating time	Determined by cardiac

scan range:-

start carina
end below apex of heart
plane straight gantry

contrast:-

single-phase contrast injection protocol

Phase 1

xx ml @ 4-5 mL/s

Phase 2 saline

50 ml @ 4-5 mL/s

xx = (Scan time + 10) x injection rate
sure start on descending aorta at level of pulmonary trunk.

Trigger at 180 HU.

Image reconstruction:-

Use Image xact to determine the optimal phase for motion-free image

Volume cardiac CTA

Comments:->

sure Cardio should be used to ensure the pitch rotating speed, and reconstruction method are optimized for the scan.

Q3 :-

Indication :-

Low Back Pain (LBP), Sciatica, femoral
neuralgia,
Spinal canal stenosis

patient preparation :-

Supine feet first, sponge under
knees, can be scanned in
lateral decubitus or prone if
position if unable to lie supine

Imaging protocol: lumbar spine 3mm
(0.5mm) (L4/L5 lumbar spine 3mm (0.5mm))

Scan slice thickness	0.5mm x 64
pitch	Detailed

kV

135

mA

Exposure 3D high quality

Rotating Time

1.0s (1.5s)

scan range :-

levels specified otherwise

Routine L2-S1

If patient < 30 y.o. then L3-S1 unless
specific symptom @ L2-3

start - above pedicle of L2

End - Blow S1 (increases scan range
to obtain sufficient data for
MPRs for L5-S1 disc) -

Image reconstructions :-

3/3 mm

3/3 mm

volume

Spine Thoracic-lumbar
bone - Standard
Spine thoracic
tumbled

Reformatting :-

In MPR. Use spine program

Q 1:→

Triphasic CT Scan is a good non-invasive tool and can be used as first line imaging modality for differentiating benign and malignant focal liver lesion. Benign lesion like haemangioma can be reliably differentiated from malignant liver lesion; therefore unnecessary biopsies can be avoided.

Indications: ->

Rule out / follow up liver for hypervascular metastases from the following-

- primary liver tumor
- renal cell carcinoma, leiomyosarcoma, thyroid tumors, carcinoid and other neuroendocrine tumors.
- melanoma and breast (may be hypovascular).
- pancreatic islet cell ~~number~~ tumor GIST.

patient preparation: -

4-hr fast

- positive oral contrast 60/45/30/15 min prior, remainder immediately prior to scan
 - H₂O may be suitable alternative (750 mL 30 min prior, 250 mL immediately prior to scan)
- supine / feet first

Imaging protocol (2 phase liver)	2 Phase liver
5mm (0.5mm)	5mm
Scan Slice Thickness	0.5mm x 64 / 1mm x 32
Pitch	Standard
KV	120
MA	Exposure 3D Standard
rotation time	0.5s (0.75s)

Scan range :-

Arterial phase

Start Top of higher hemidiaphragm
End Liac crests
plane Straight gantry

portal venous phase

Start Top of higher hemidiaphragm
End Below ischium
plane Straight gantry

Contrast :

Volume 70-120 ml (depending on patient weight)

Rate 4 ml/s

Delay "start" 180 HU in the
abdominal aorta + 10 s
portal venous 65 s fixed
delay.

Image reconstruction :->

515 mm
volume

Body standard axial
Body venous standard volume

Reformatting :->

multiview	Coronal	sagittal
start	posterior	left
end	anterior	right
thickness	4mm	4mm
spacing	4mm	4mm

neck -> 75ml
1.5-2m slice
40

chest -> 70ml
250m.
35

liver => 70-120ml
4mm slice