ID = 14245

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Sign =

Q.No1:

Ans:

triphasic CT scan is non-invasive (non-surgical tool) which is performed to differentiate benign and malignant focal liver lesions.

benign lesion (hemangioma) can be different from malignant liver lesions.

The doctor prescribed CT body - Liver To diagnose for triphasic liver (tumor)

this Protocole is indicated for: Primary liver tumors.

Patient preparation:

- 4-hrs fast.
- Positive oral contrast 60/45/30/15 min prior, remaining per- P-TO-

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:

Scan slice thickness = 0.5 mm
x64 (1mm x 32)
Pitch = standard
KV = 120
mA = Exposure ID standard
Rotation time = 0.5 s (0.75 s)

Scan range:

Start — Anterior Phase
- top of higher hemi-diaphram.

End — iliac crests.

Plane — straight entry.

P-T-O

Portal venous phase:

start = top of higher hemi-diaphragm.
End = below ischium.
Plane = straight gantry

contrast

volume = 70-120 ml
Rate = 4ml/s
Delay = "start" 160 HU in abdom-inal aorta + 10 s Portal venous 65 fixed Delay

Reconstruction:

5/5 mm body standard axial.
volume body standard volume.

Reformatting:

MPR-View	coronal	sagittal
start	Posterior	left
End	Anterior	Right
thickness	4mm	4mm
spacing	4mm	4mm

Q No 2:

Ans:

When patient complain about his/her sinusitis to the doctor.

The Doctor prescribe the protocole CT head and neck. sinuses

it indicated also for:

- Facial bone
- Polyps
- Post nasal drop.

and sinusitis.

Patient preparation:

- Patient will be supine
- Head first.

and Head symetrically

Imaging Protocol:

Slice thickness = 0.5 mm x 64.

Pitch = Detail.

KV = 120

mA = 150

P-T-O

Rotation time = 0.5 s

Scan Range:

Start = ⇓ maxillary sinus.

End = ⇑ frontal sinuses.

Plane = Parallel to hard palate.

Image Reconstruction:

515 mm bone sharp.

volume bone sharp.

Reconstruction:

multiview (coronal)

Plane -Perpendicular to hard plate

(Sagittal)

- Perpendicular to hard plate.

Start **coronal:**

Inferior to frontal.

Sagittal:

medial wall of left orbit.

End **coronal**

Posterior to sphenoid

P-T-O

sagittal

medial wall of righ orbit

thickness / spacing:

2/2 mm

2/2 mm

Q No 3:

Ans:

According to scenario this patient has problem (disease) sciatica. so the Doctor advice to patient to do CT Lumbar spine. which basically is indicated for sciatica etc.

Patient preparation:

~~slice thickness = 0.5 mm x 64~~
~~Pitch = Pelvis~~

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

Imaging Protocole:

Scan slice thickness = 0.5 mm x 64

P-T-O

Pitch = Default

kV = 135

mA = Exposure ↑ High quality.

Rotation time = 1.0 s (1.5 s).

Scan Range:

Level specified otherwise

Routine L2, S1

if patient < 30 y.o, then L3, S1 unless.

specific symptom L2-3.

start = above pedicle of L2

End = below S1.

Image Reconstruction:

3/3 mm = spine thoracic-lumbar

3/3 mm = bone standard.

volume = spine thoracic-lumbar

Reformatting:

Use spine program in MPR.

Q NO 4:

Ans:

Patient positioning:

Patient should be positioned with तरल condition like the foot is fixed in neutral position but sometimes it is fixed in a fairly Flat-Footed position.

- foot will be does not move-

Protocole that use for तरल condition is CT musculoskeletal - Ankle.

Indication:

तरल condition:-

Patient preparation:

supine / Feet first, Ankle of interest at centre of

P-T-Q

of FOV -
- Leg bend up.
ankle foot immobile.

imaging Protocol:

slice thickness = 0.5 mm x 64
Pitch = Detail
kV = 120
mA = 100
Rotation time = 0.5 s

Scan Rang:

start	above ankle joint
End	below calcaneum
Plane	straight Entry.

image Reconstruction.

Z/Z mm	bone sharp
Volume	bone sharp
volume for 3D	soft tissue standard.

Reformatting:

coronal

Plane	true coronal
start	Posterior to calcaneum

P-T-O

End Anterior to navicular.

Thickness and spacing
2/2 mm
2/2 mm

saggital
Plane true saggital
start lateral to fibula.

End Medial to fibia

thickness and spacing:
2/2 mm
2/2mm.
(comment is that if fractured then 3D required)

n

Scanned by CamScanner

Q NO 5:

Ans:

CT A cardiac:

1- It use CT technology.
2- Done with IV contrast material for high resolution.
3- Also called MD CT, cardiac CT or CAT to show narrow artries, Atherosclerotic arteries or blood debris

indication:

- CAD

Patient preparation:

supine / feet first
ECG dots placed on chest, arm abov head.

Imaging protocol:

Slice thickness = 0.5 mm x 64
Pitch Retro-cardio
kV = 120
mA = 400

P-TO-

Rotation time = Determine by cardio.

Scan Range:

Start carina
End below Apex of heart.
Plane straight Gantry.

Contrast:

Single phase - contrast injected protocol.
Phase 1 = xx ml 4-5 ml/s
Phase 2 (saline) = 50 ml 4-5 ml/s
xx = (scan time * 10) x inj rate.
start on descending aorta at level of pulmonary trunk.
- Trigger at 180 HU

Image Reconstruction:

Use image xact to determine the optimal phase

P-T-O

For motion - Free images
volume = strdiac (TA

END