

(1)

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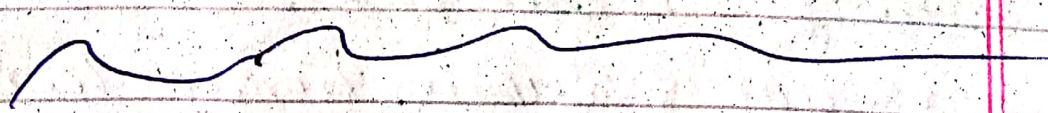
program : BS Radiology 6th semester

Subject : ET Clinical procedure

Department : A-H-S

~~Instructor~~
Instructor : Mrs Maheen gull

Date : 26 June 2020



QNO (1) In which circumstances is liver triphasic perfused?
 What the general protocol for liver triphasic examination?

Ans:-

Indication:-

The Rule follow up liver for hypervascular metastases from the following:

- primary liver tumor
- Renal cell carcinoma, leiomyosarcoma, thyroid tumors, carcinoid and other neuroendocrine tumor.
- Melanoma and breast
- pancreatic islet cell 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 3 min prior

250 ml immediately to Scan)
 Supine / Feet First /

Imaging protocol :

Scan slice thickness	} Standard	0.5 mm x 64 (1 mm x 32)
pitch		Standard
Kv		120
mA		Exposure 3D Standard
Rotation time		0.5s [0.75s]

Scan range :

	Arterial phase	portal venous phase
Start	Top of higher hemidiaphragm	Top of High diaphragm
End	iliac crests	Below isthmus
plane	Straight gantry	Straight gantry

Contrast :

volume : 70-120 ml (depending on patient weight)

Rate : 4 ml/s

Dose : Start ^{ms} 120 HU in abdomen
rate + 10s

portal venous 65s fixed delay

Image reconstruction :

515 mm Body Standard Axial
 volume Body Standard volume.

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Reformatting:

multiview coronal sagittal

Start posterior left

End Anterior Right

thickness 4mm 4mm

Spacing 4mm 4mm



QNO (2)ANS (11)Indications :->

Sinusitis, polyps,
post-nasal drip, facial
bones, anoma

patient preparation:-

Supine & head first
taking care to position
head symmetrically.

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

Imaging protocol:

Scan slice thickness	0.5 mm x 4	} detail
pitch		
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
volume

Bone Sharp
Bone Sharp

Reformatting

Multiview

coronal

Sagittal

Start plane	}	perpendicular to hard palate	}	perpendicular to hard plate
Start		anterior to foramsis		medial wall of left orbit

End	}	posterior to sphenoids	}	medial wall of right orbit
End		2mm		2mm

Thickness	}	2mm	}	2mm
Spacing		2mm		2mm

Thickness	}	2mm	}	2mm
Spacing		2mm		2mm

QNO³(3)

ANS (iii) **Indication:-**

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

patient preparation:

Supine/ Feet First,
Sponge under knee
they can be scanned
in lateral decubitus
or prone position if
unable to lie supine

Imaging protocol:

Scan slice thickness	0.5 mm x 64	
pitch	} Detail	
Kv		135
mA		Exposure 3D High Quality
Rotation time	1.0s (1.5s)	

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Scan range :-

Levels Specified other wise
Routine L2-S1

If patient < 80 y.o then L3-S1 unless
Specific symptoms L2-3

Start Above pedicle of L2

End Below S1 (increase scan
range to obtain
sufficient data for MPRs
for L5/S1 disc)

Image reconstruction :-

3/3 mm } Spine thoracic-lumbar

3/3 } Bone Stenosis

volume } Spine thoracic lumbar

Reformatting:

use Spine program
in MPR

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(iv)

4
QNO

Ans

(4)

Indications:-

Tarsal indication
talar claneal pathology, ankle
joint pathology, loose bodies.

Patient preparation:

supine / Feet first,
ankle of interest at center
of FOV. other leg bent up.
Ankle / Foot immobilized.

Imaging protocol: [Ankle / Foot 2mm (0.5mm)]

Scan Slice Thickness	0.5 mm x 64
Pitch	Detail
KV	120
MA	100
Rotation Time	0.5s

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Scan range:

Start	Above ankle joint
End	below calcaneum
Plane	Straight gantry

Image reconstruction:

2/2 mm	Bone sharp
volume	Bone sharp
volume for 3D	Soft Tissue Standard

Reformatting:-

	coronal	sagittal
plane	True coronal	True sagittal
start	posterior to calcaneum	lateral to fibula
End	Anterior to navicular	Medial to tibia
Thickness	2 mm	2 mm
spacing	2 mm	2 mm

Comments:-

97 Fractured then
3D are required.

Q No 5

Ans 7 Indication :-

The Investigation CAD assessment of coronary stents
Note: We recommend our IO Step guide to Coronary CTA for detailed instruction for performing these studies.

Image patient position/set up

Supine/Feet First

ECG dots placed on the chest, arms above head.

Imaging protocol:

Scan slice thickness 0.5 mm x 64

pitch

Determined by cordio™

kV

120

mA

400

Rotation

Determined by ⁵⁰⁰ cordio

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Scan range ::

Start corine

End Below apex of Heart
plane Straight gentry

Contrasts ::

Phase 1

xx ml @ 4.5 ml/s

Phase 2 (Baseline)

50 ml @ 4.5 ml/s

$xx = (\text{scan time} + 10) \times \text{injection rate}$

Image reconstruction ::

Use Imagecat to determine
the optimized phase for motion...

free Images

⇒ Volume Corelio CTA

Comments ::

^{sub} Corelio should be used
to ensure that the pitch
rotation speed and reconstruction
method optimized
for the scan.

The End

