

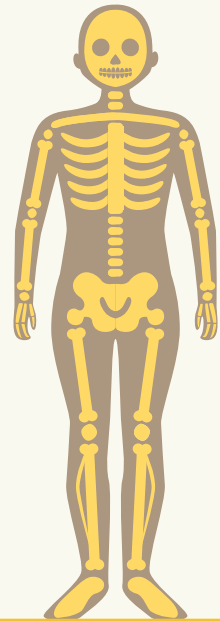
MED439
KING SAUD UNIVERSITY

Revised & Approved



Radiology OSPE

-Endo BLOCK-



Color index:

Black: Main text
Red: Important
Yellow: Drs notes
Gray: Extra

P1) THE PITUITARY GLAND

- The gland is composed of two parts:
 - Anterior lobe (adeno hypophysis)
 - Posterior lobe (neuro hypophysis)
- Normal size:
 - Weight: 0.5g
 - Height: 4-16 mm
 - Anterior posterior: 5-16 mm

INDICATIONS FOR IMAGING THE PITUITARY GLAND

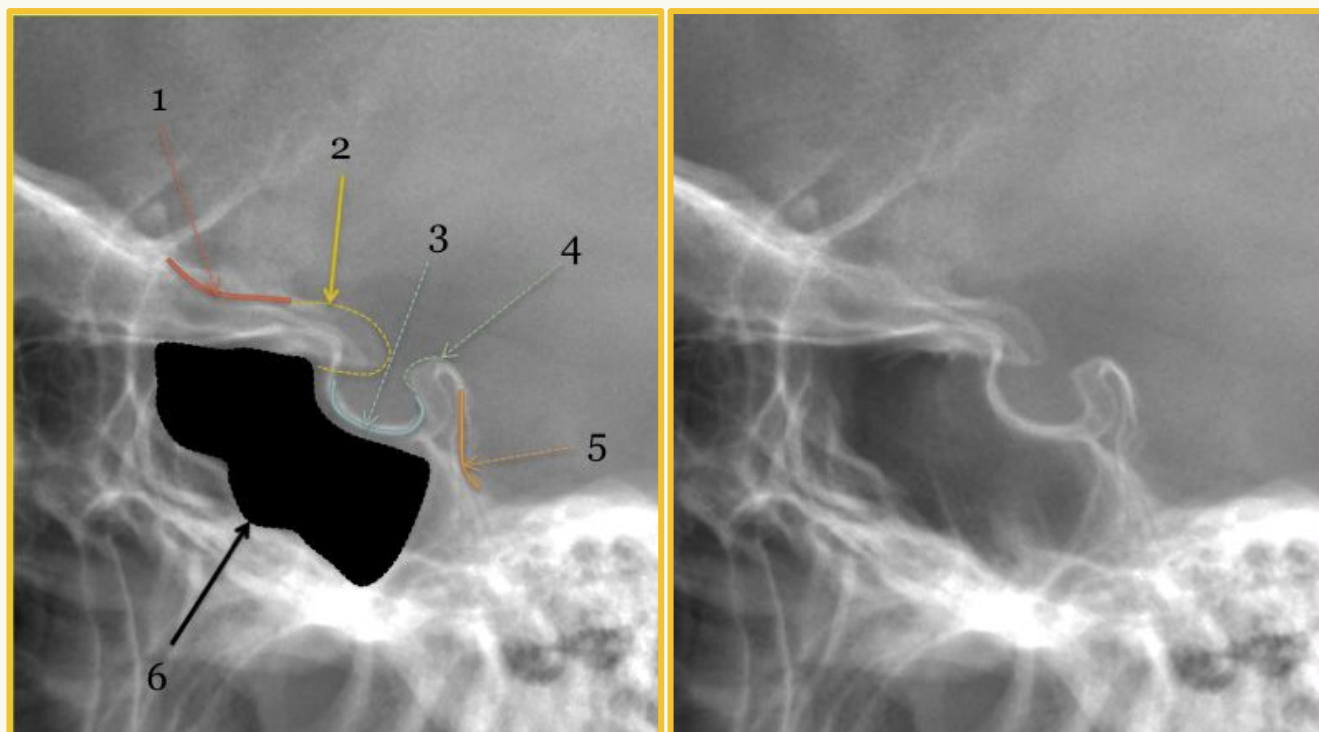
- Hormonal dysfunction :
 - Cushing syndrome
 - Growth abnormalities e.g. Growth hormone deficiency, acromegaly
- Visual abnormalities
- headache

What is best modality to image the pituitary gland ?

CT scan	MRI	US	X-ray	Nuclear medicine
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- X RAY -

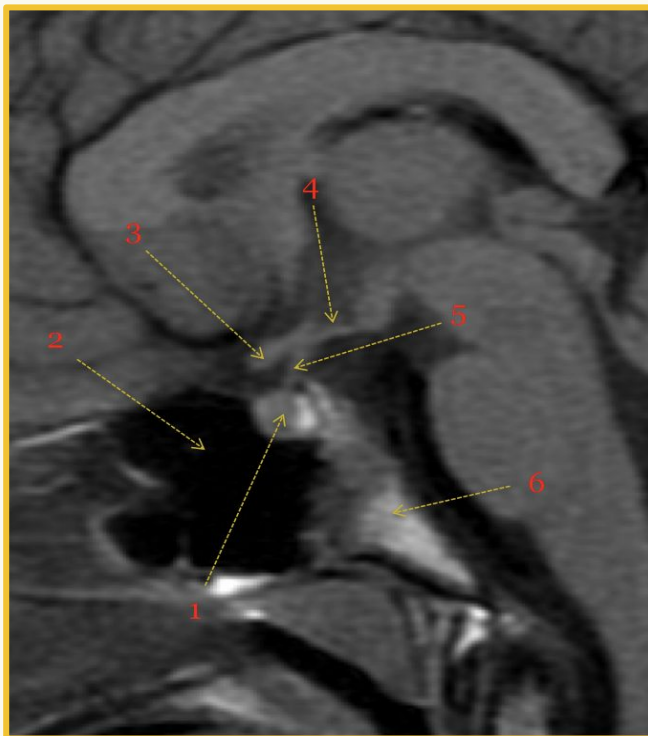
1	Optic sulcus
2	Anterior clinoid process
3	Floor of sella turcia (Pituitary fossa)
4	Posterior clinoid process
5	Dorsum sella
6	Sphenoid sinus



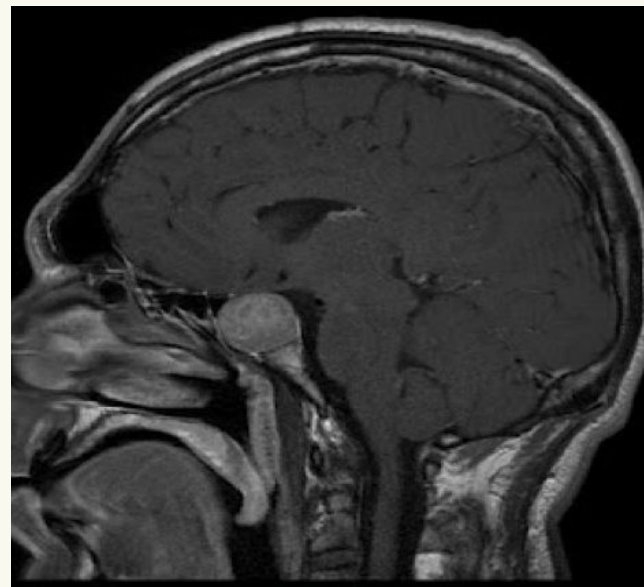
P1) THE PITUITARY GLAND

- MRI -

1	pituitary gland
2	sphenoid sinus
3	optic chiasm
4	hypothalamus
5	pituitary stalk
6	clavus

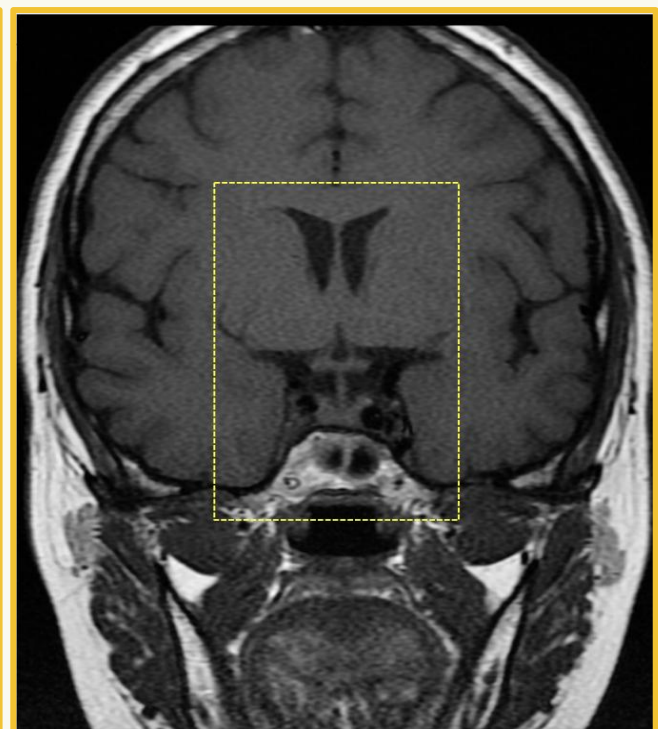
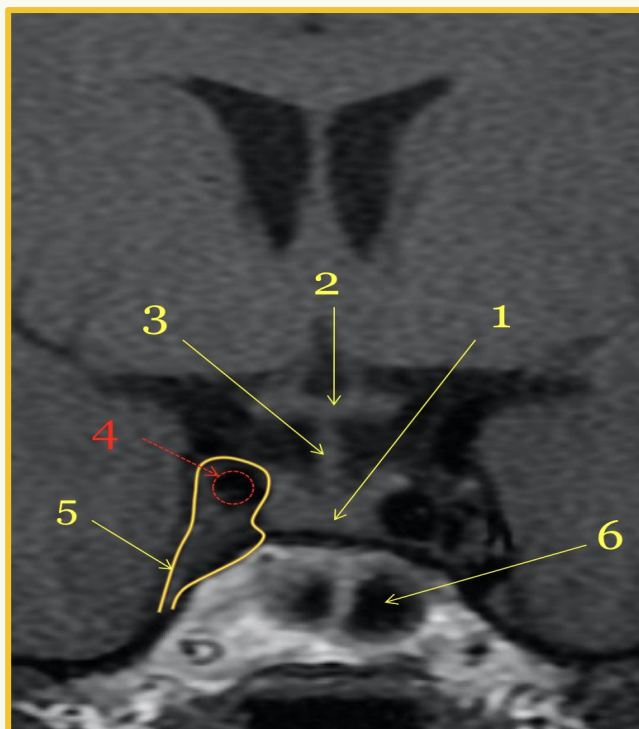


NORMAL



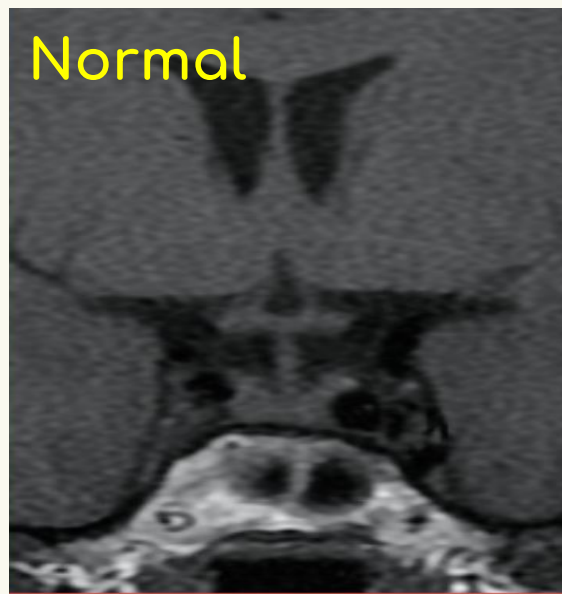
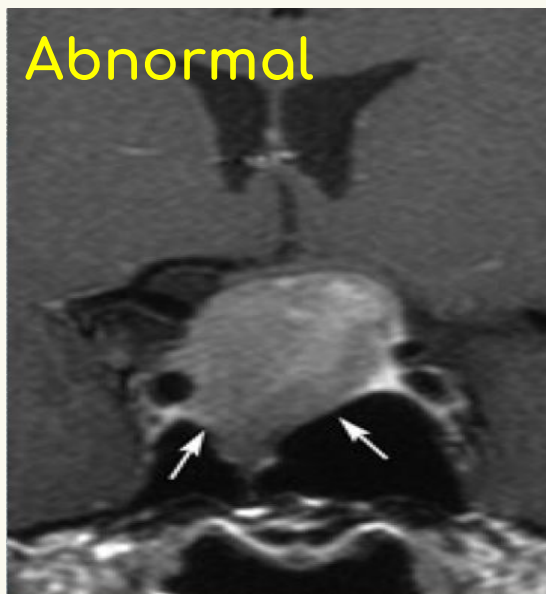
PITUITARY ADENOMA

1	pituitary gland
2	Optic chiasm
3	pituitary stalk
4	Carotid artery
5	Cavernous sinus
6	Sphenoid sinus

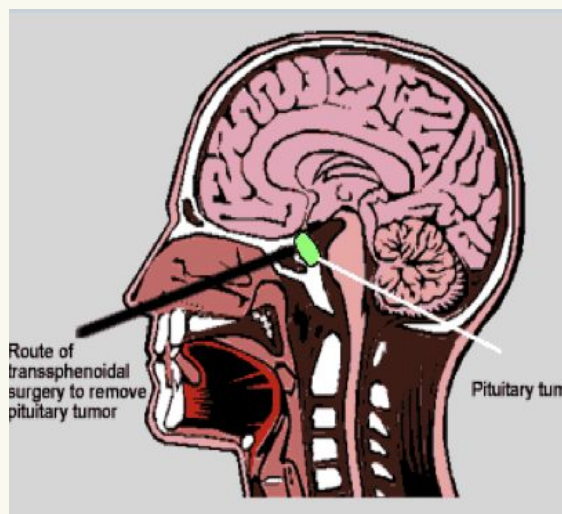
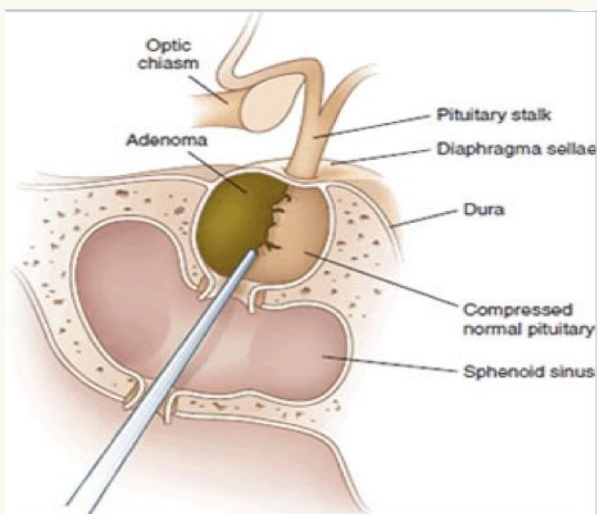


P1) THE PITUITARY GLAND

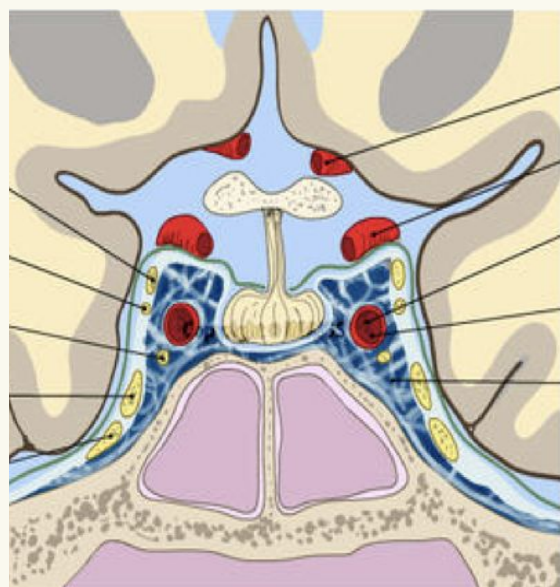
Illustrations



In the abnormal image we can see an enlargement of the pituitary gland pushing the optic chiasma above it and the sphenoid sinus below it, also the mass is encasing the carotid artery.



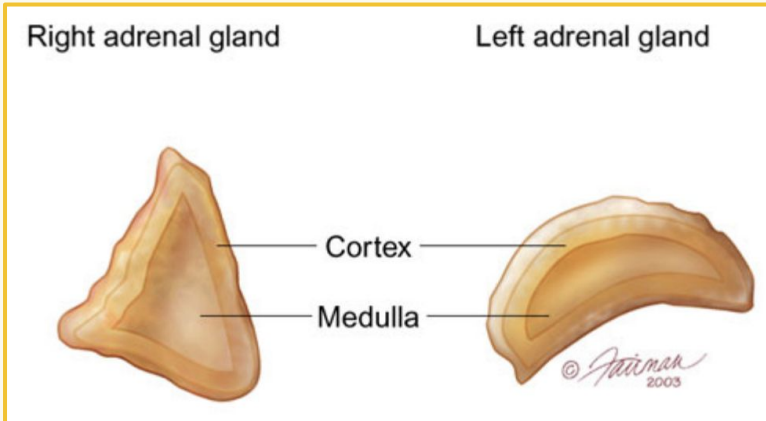
Route of trans-sphenoidal surgery is to remove the pituitary tumor.



P2) THE ADRENAL GLAND

Modalities used for adrenal gland imaging

Ultrasound	CT	MRI
only used pediatric patients	Best choice for adults	Best choice for adults



- Right adrenal: Sharper angle
- Left adrenal: Confined to the shape of the spleen
- On CT and MRI we are rarely able to see the layers of the cortex and differentiate between cortex and medulla (normally)
- In neonates we can sometimes see the layers in US

- Axial CT -

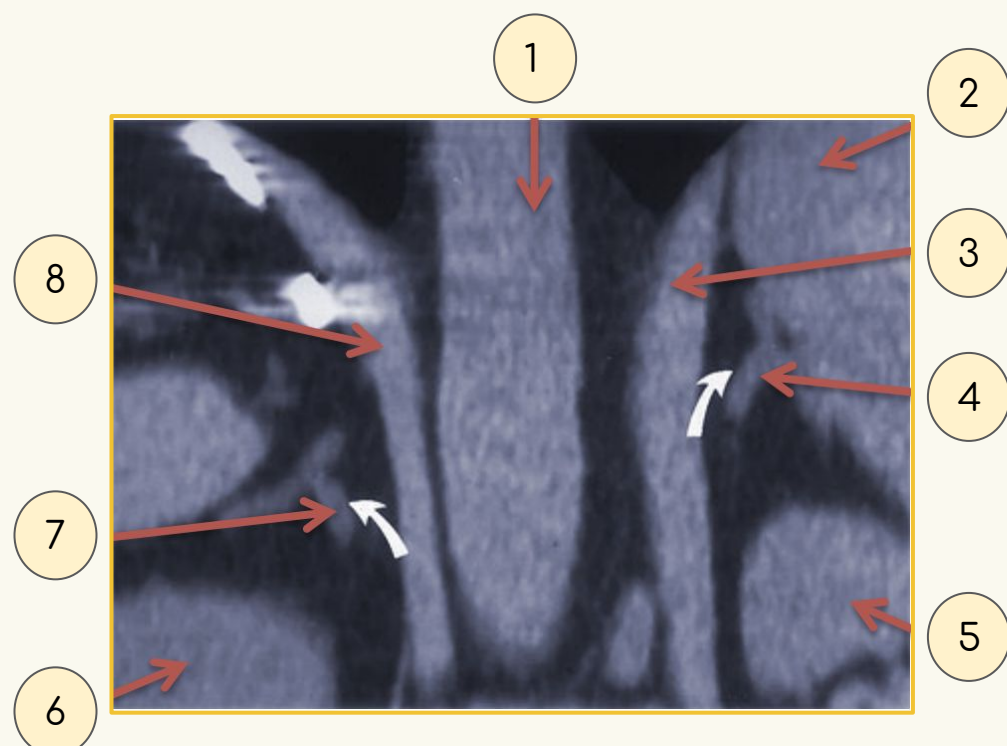
Right adrenal



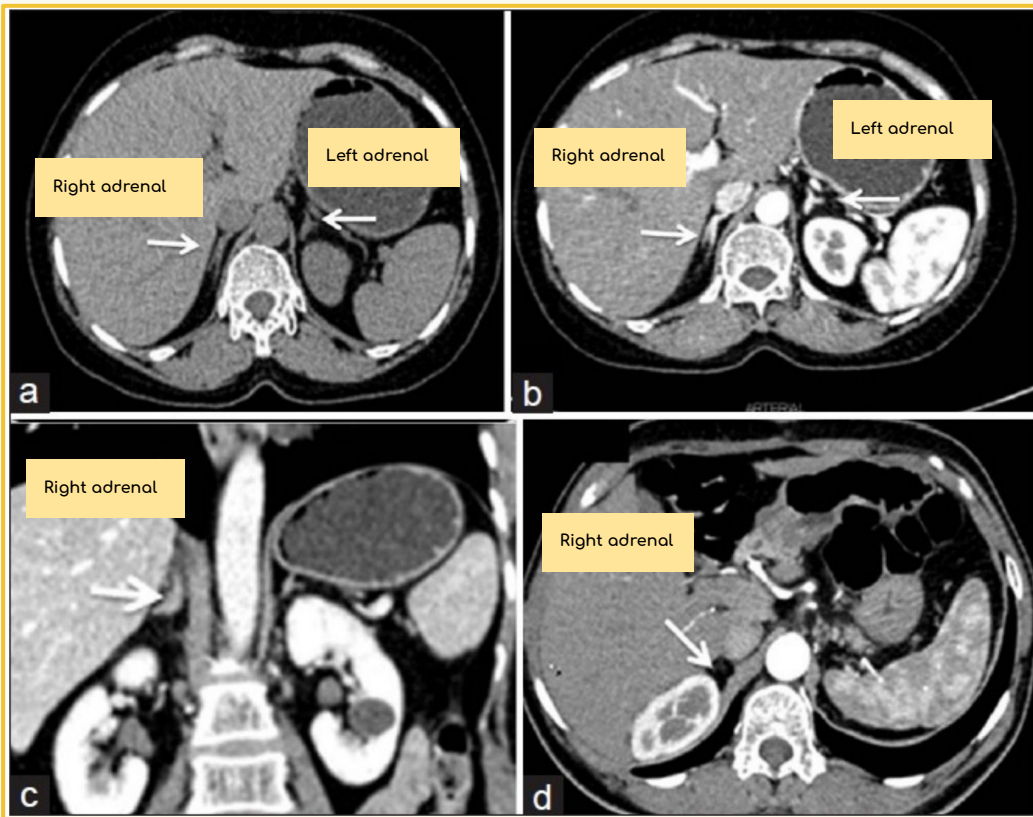
Left adrenal

-Coronal CT-

1	Aorta
2	Spleen
3	Left diaphragmatic crus
4	Left adrenal gland
5	Left kidney
6	Right kidney
7	Right adrenal gland
8	Right diaphragmatic crus



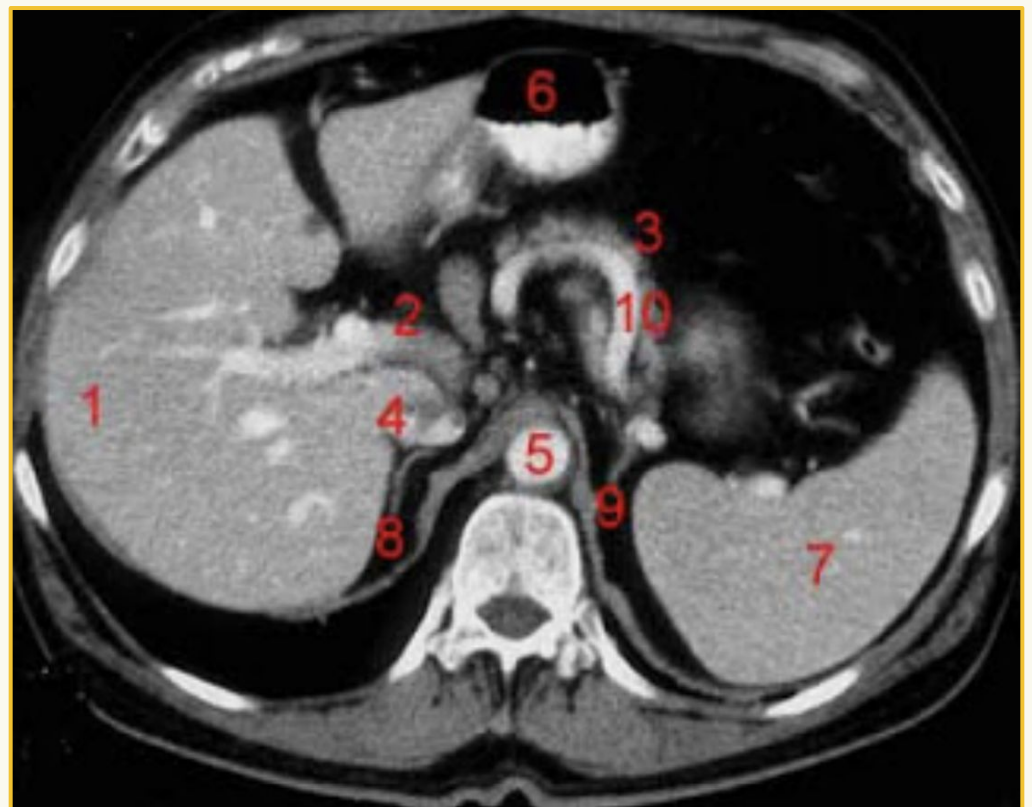
P2) THE ADRENAL GLAND



A	Pre contrast axial CT
B	Post contrast axial CT Adrenal glands are lighting up
C	Post contrast coronal CT
D	Post contrast axial CT Lower cut image You can barely see the right adrenal

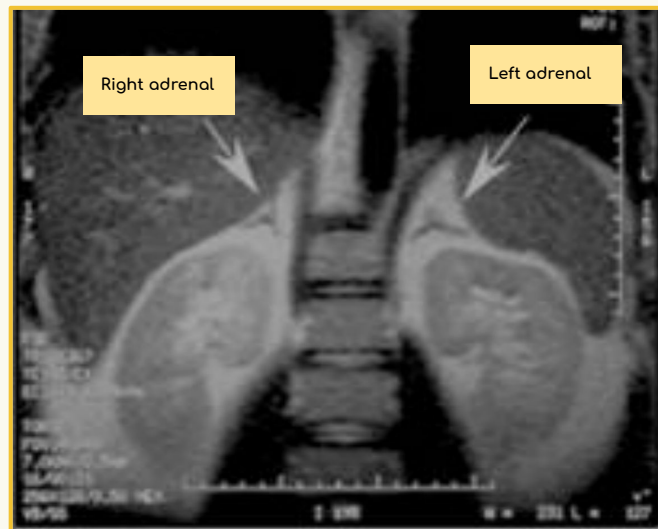
1	Liver
2	Portal vein
3	Pancreas
4	Inferior vena cava
5	Abdominal aorta
6	Stomach
7	Spleen
8	Right adrenal gland
9	Left adrenal gland
10	Splenic artery

-Axial CT of the abdomen-



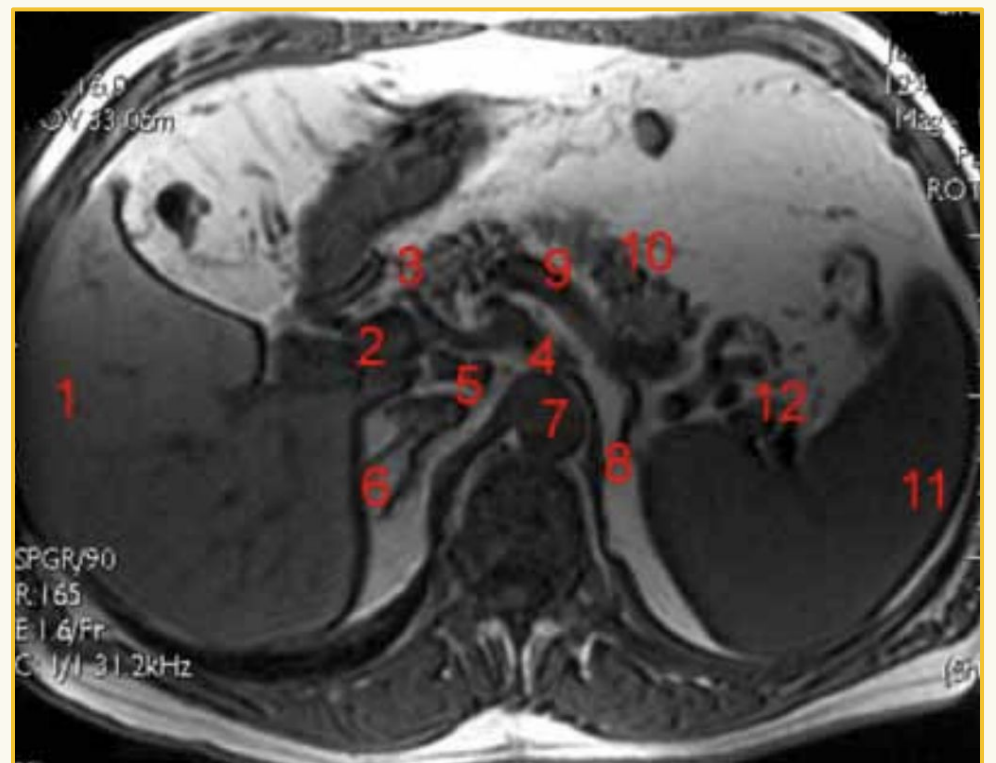
P2) THE ADRENAL GLAND

-Coronal MRI-

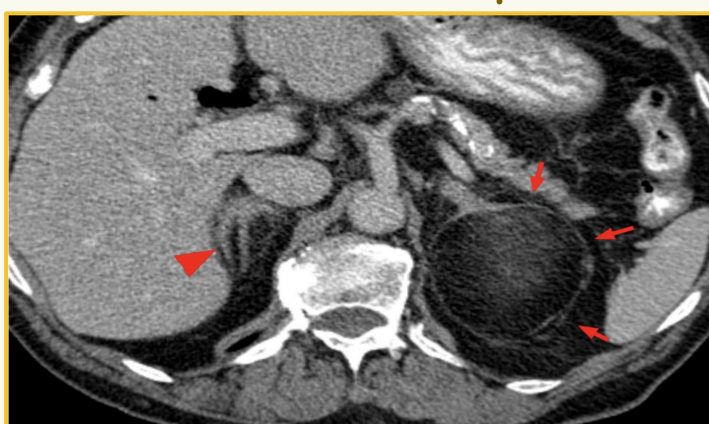


1	Liver
2	Portal vein
3	Head of pancreas
4	Celiac artery
5	Inferior vena cava
6	Right adrenal gland
7	Abdominal aorta
8	Left adrenal gland
9	Splenic artery
10	Body of pancreas
11	Spleen
12	Splenic hilum

-Axial MRI of the abdomen-



-Left adrenal Lipoma-



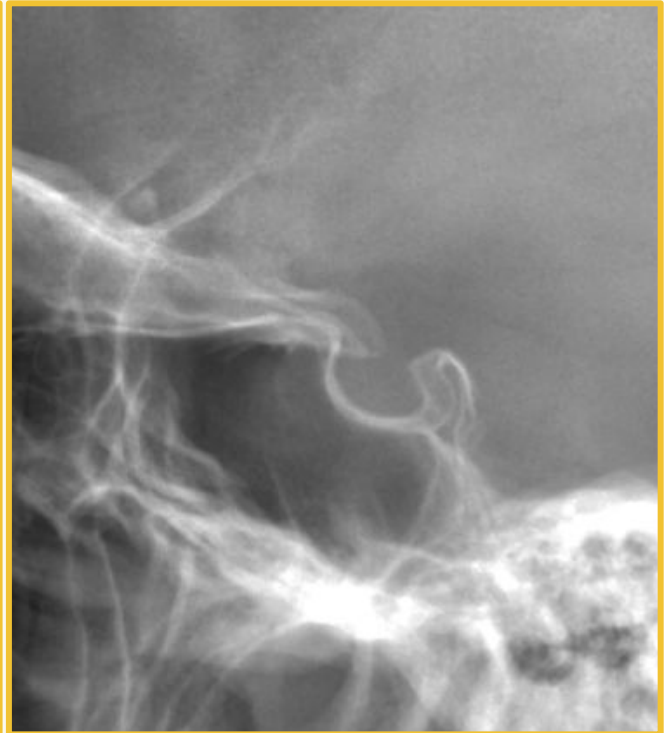
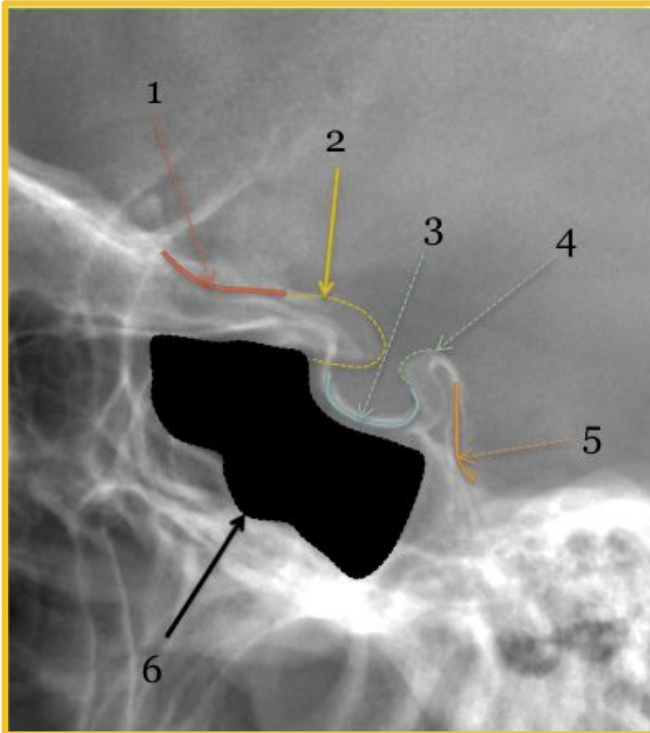
Left adrenal gland shows a large mass with low density. The density of the lesion is very similar to the peritoneal fat, which means that the lesion is predominantly made of fat

Practice!

- Image? -

Answer in slide #2

1	
2	
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- Image? -

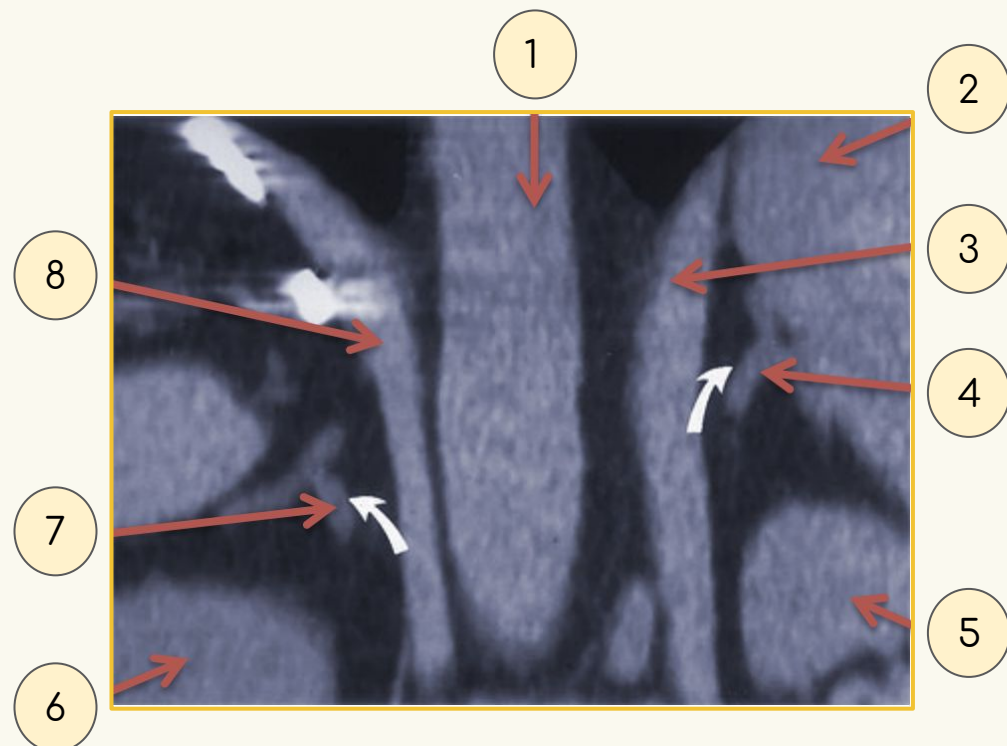
Answer in slide #5



Answer in slide #5

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8	

-Image?-

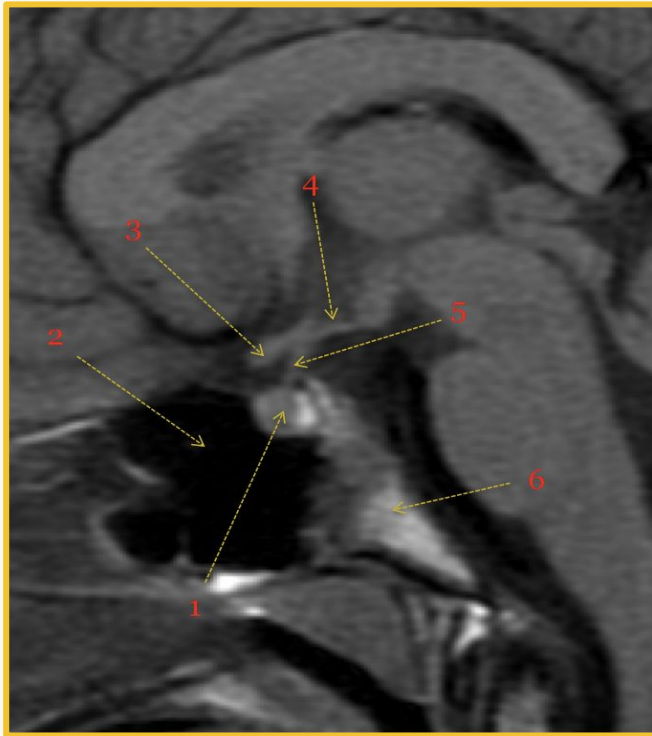


Practice!

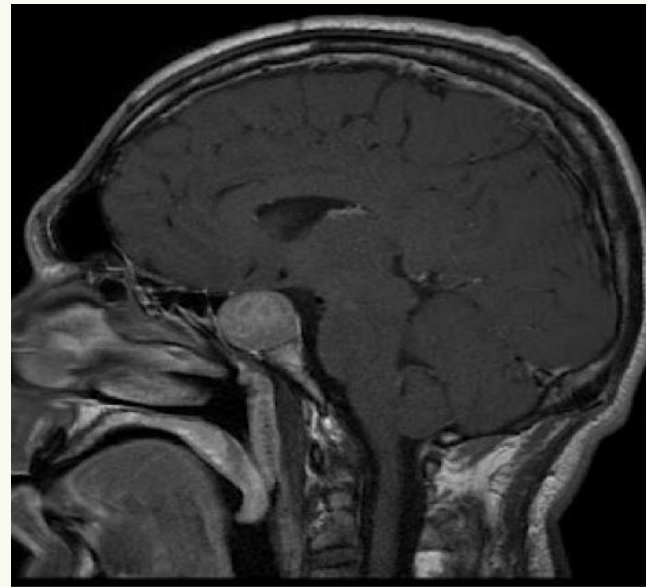
Answer in slide #3

- Image? -

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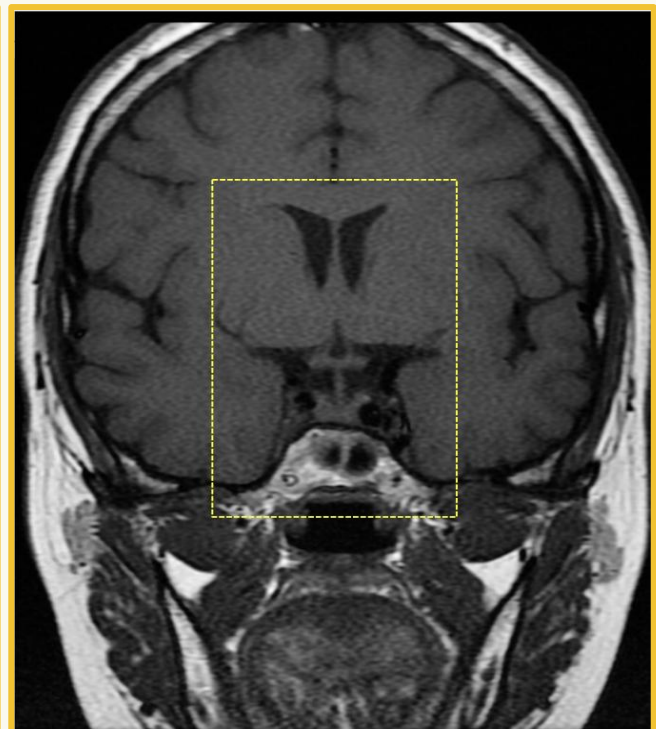
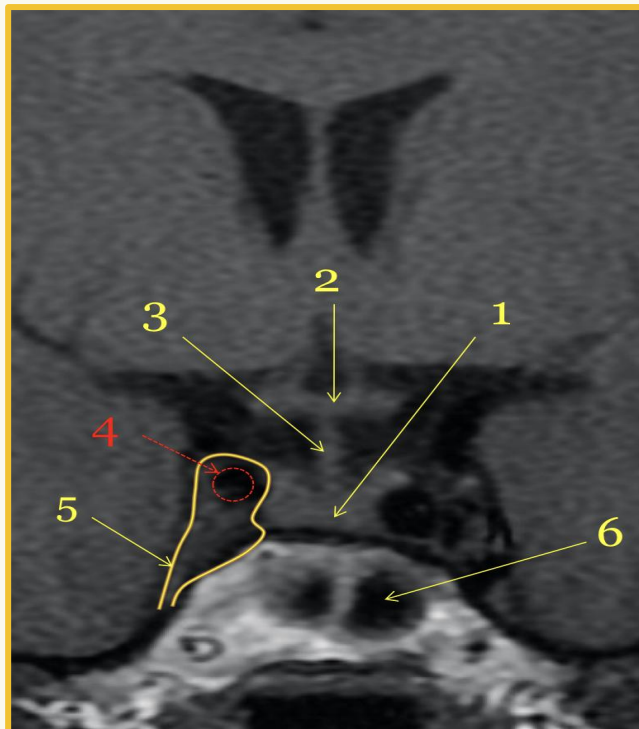


Diagnosis?



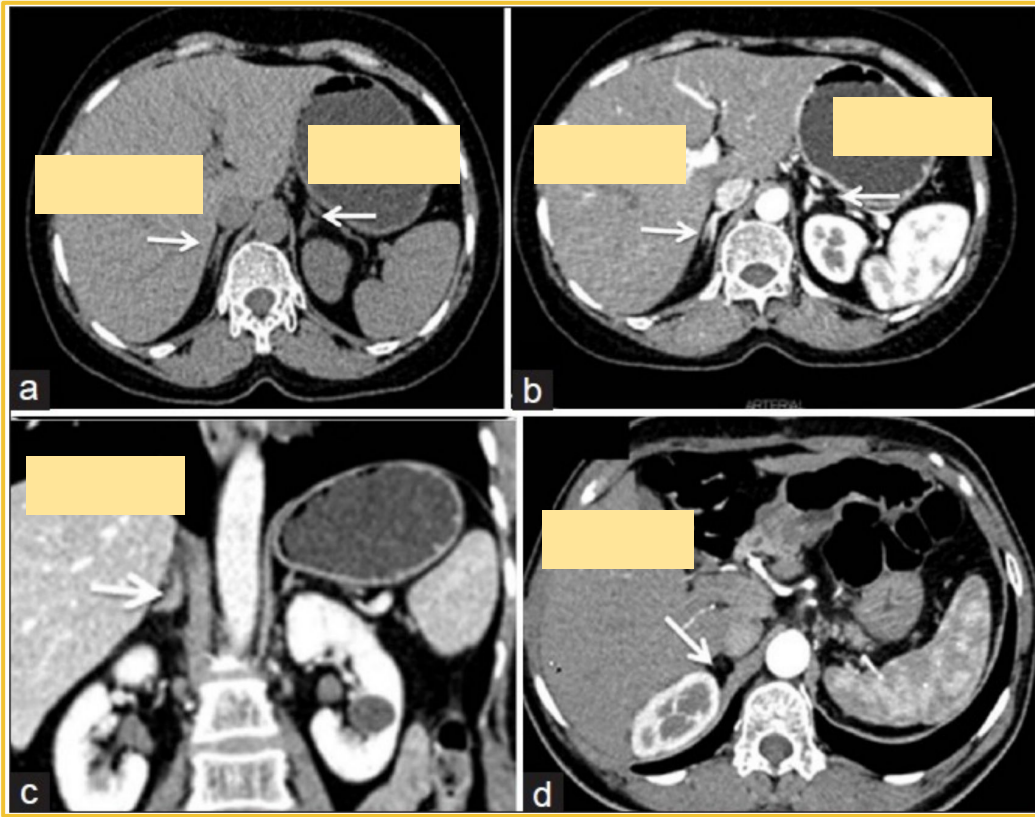
Diagnosis?

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Practice!

Answer in slide #6

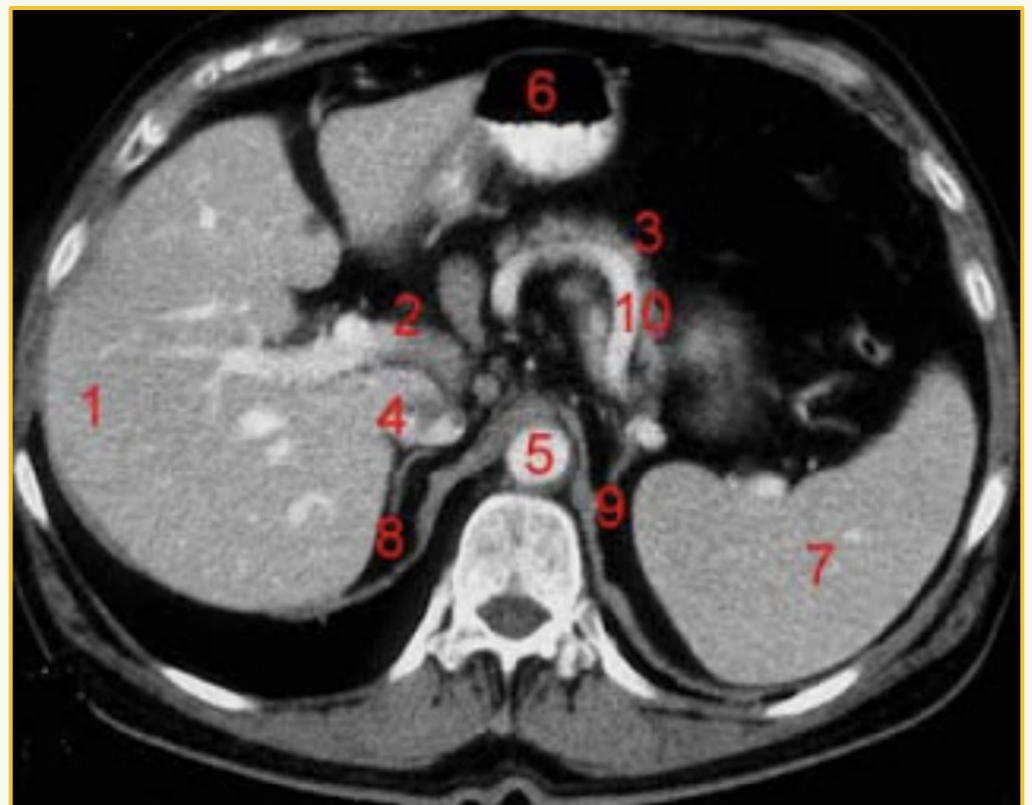


A	Image?
B	Image?
C	Image?
D	Image?

Answer in slide #6

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-Image?-



Practice!

Answer in slide #7

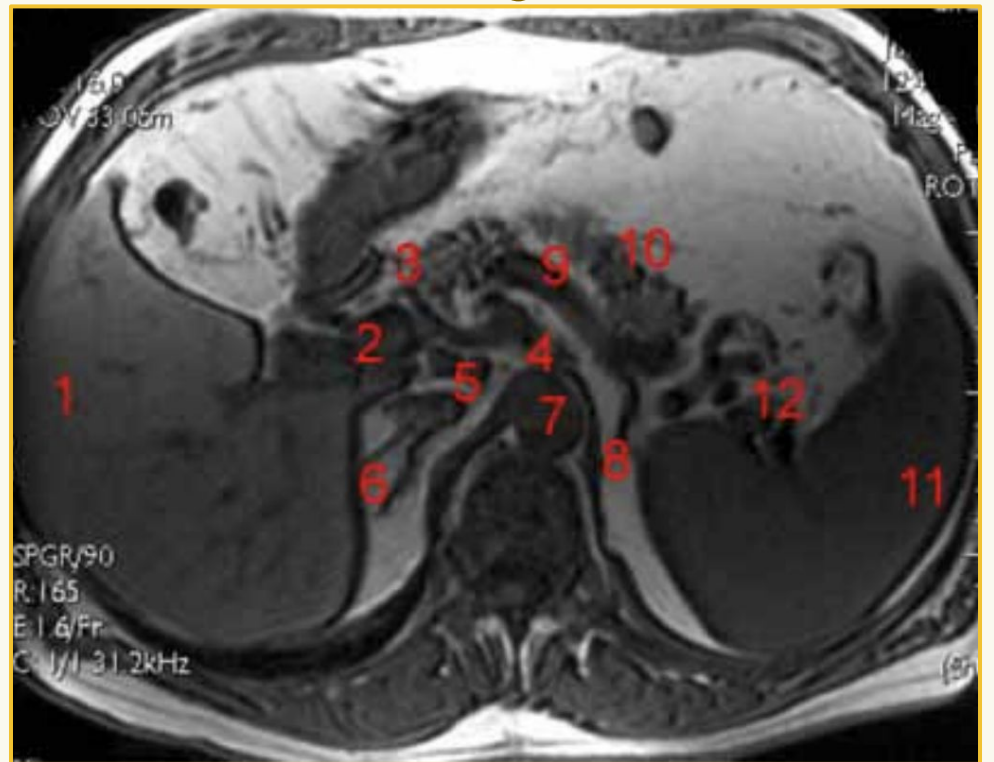
-Image?-



Answer in slide #6

-Image?-

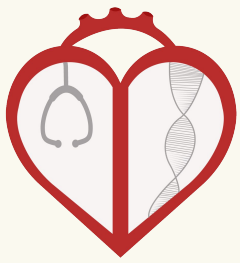
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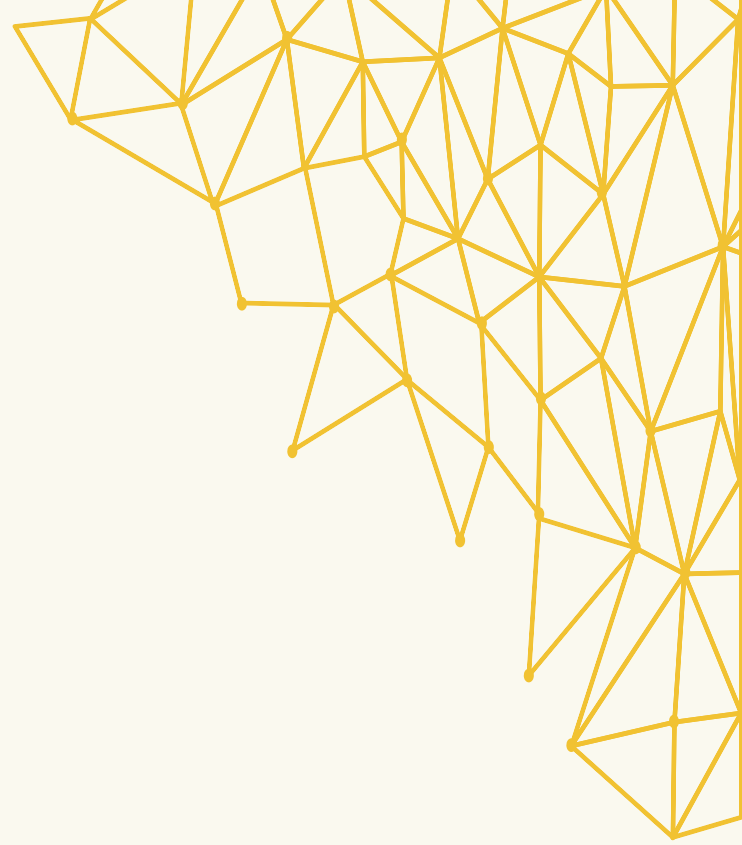
Answer in slide #7

-Diagnosis?-





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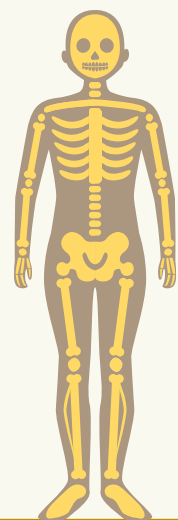


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Good luck

Editing file



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