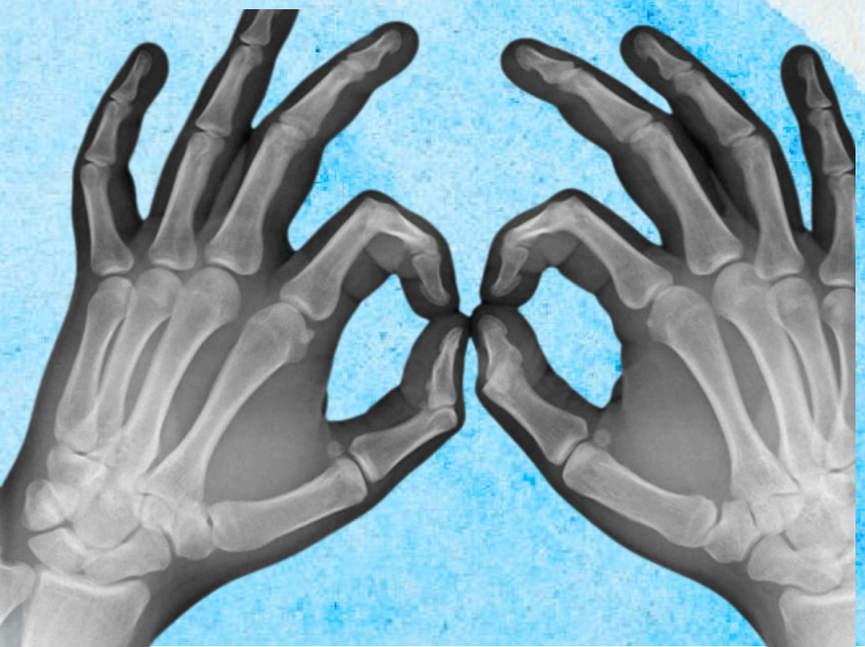
Radiology Test Bank
Mini-Osce edition

Laith Sami



GIS AND US

1- what is the study?

Axial CT scan of the abdomen, with oral and IV contrast.

2- Name the pointed structures?

1- (yellow arrow): Right rectus abdominis muscle.

2-(Red Arrow): Left common iliac artery.

3- (Green arrow): Right psoas muscle.

4- (Blue arrow): Descending colon.

1-what is the study?

Axial Non-contrasted CT scan of the abdomen.

2-describe the pointed pathology?

There is a crescent shaped hypodense area in the liver, indicating the presence of gas in the biliary tree (Pneumobilia).

3- mention 2 causes lead for this pathology?

-post ERCP.

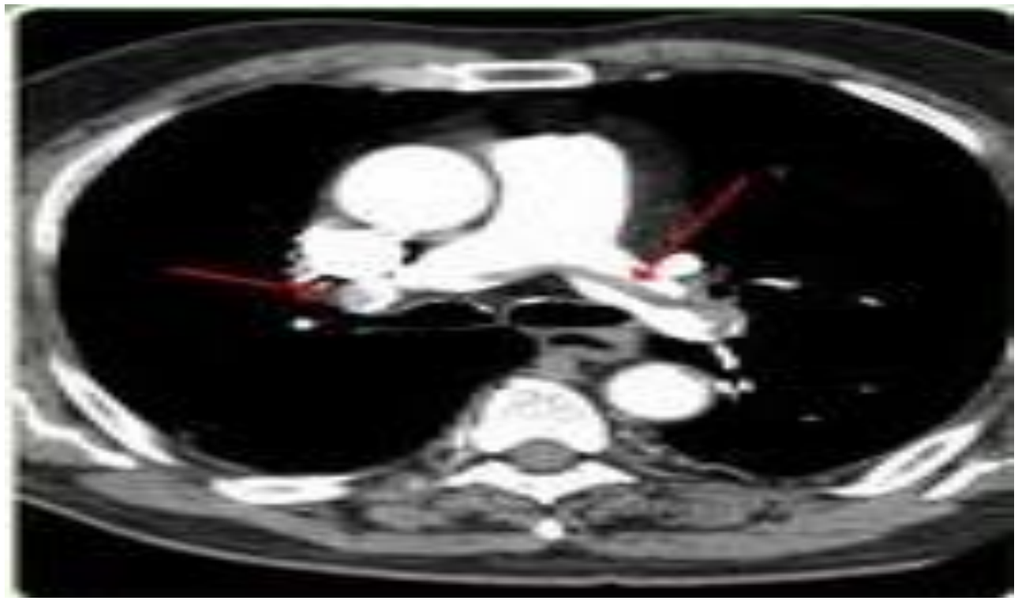
- Gallbladder stones with gallstone ileus.

-Fistula between gall blader and the gut.

- Recent surgery.

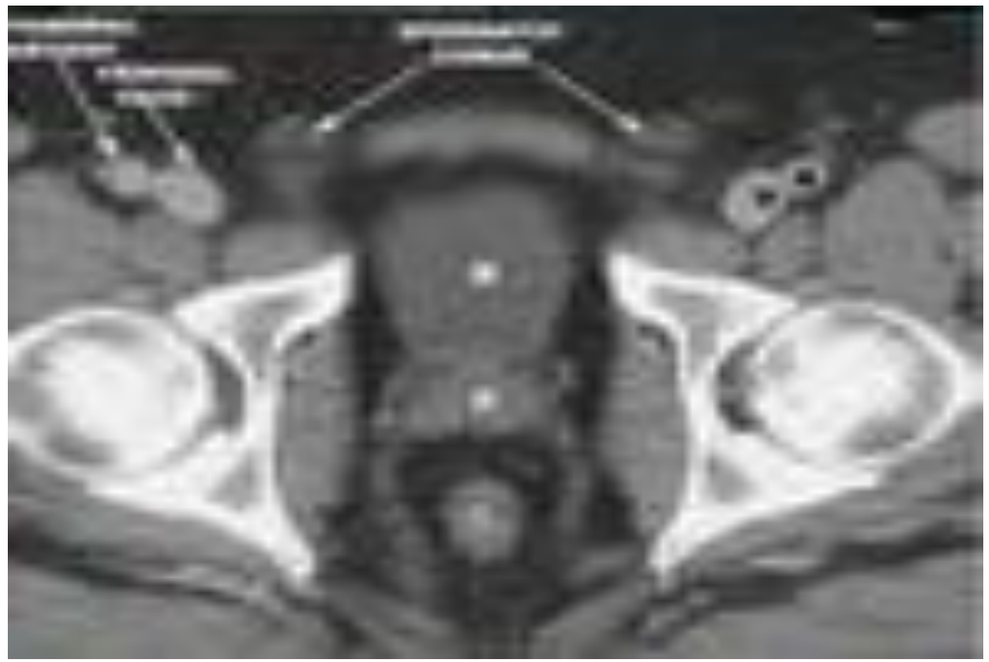
Q) Axial CT without contrast show **saddle embolism** at main pulmonary vessel:

False



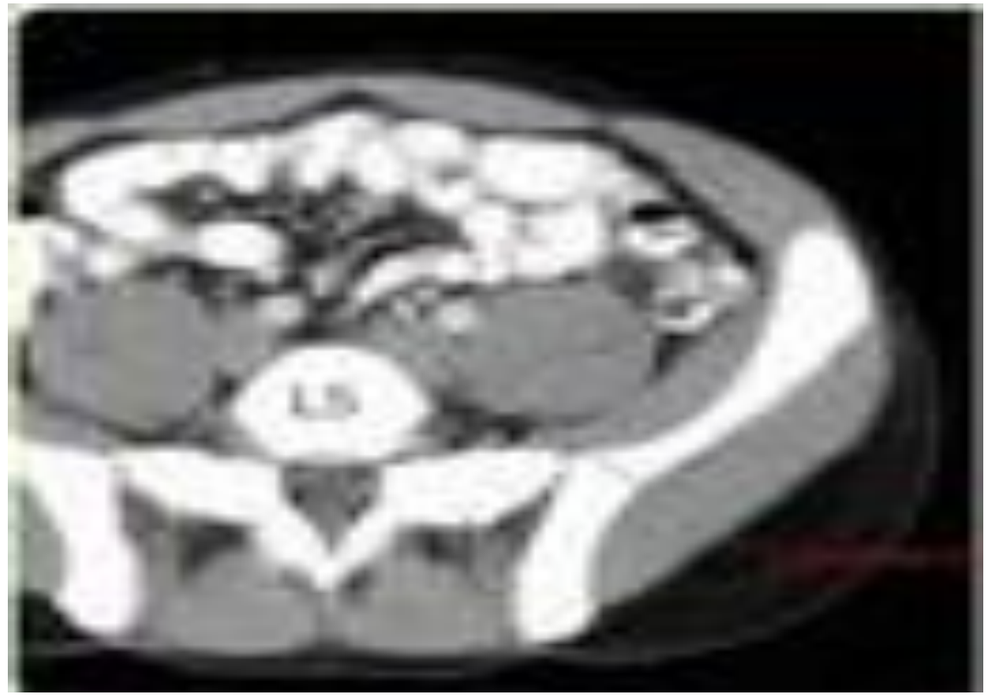
Q) The Vein is **medial** to artery in this picture?

True



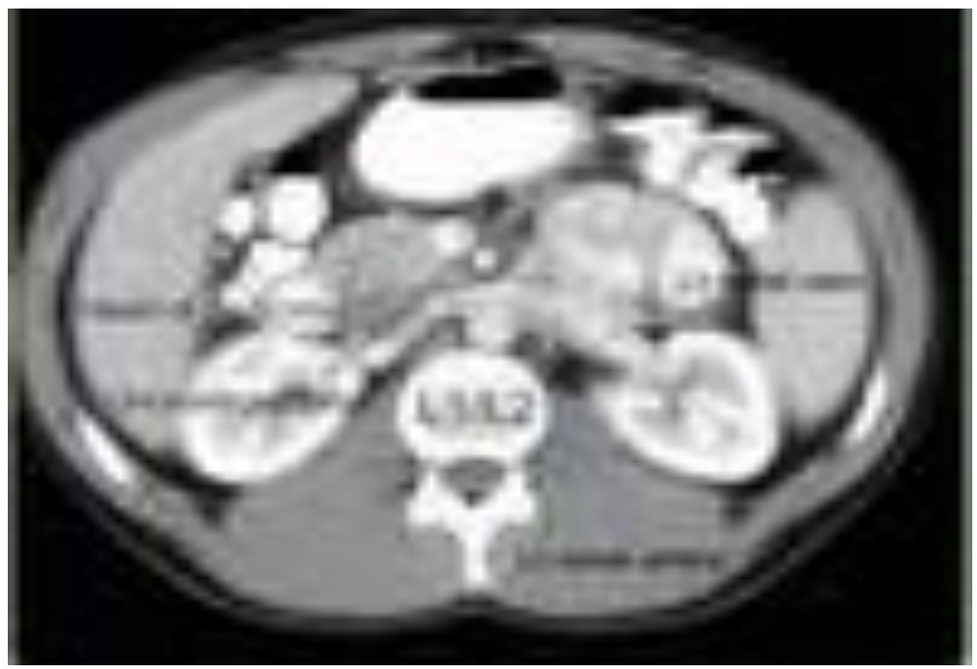
Q) Artery is located posteriorly in the following picture?

False



Q) **Behind** superior mesenteric vessels we found (3rd part of duodenum, uncinate process and left renal vein):

True

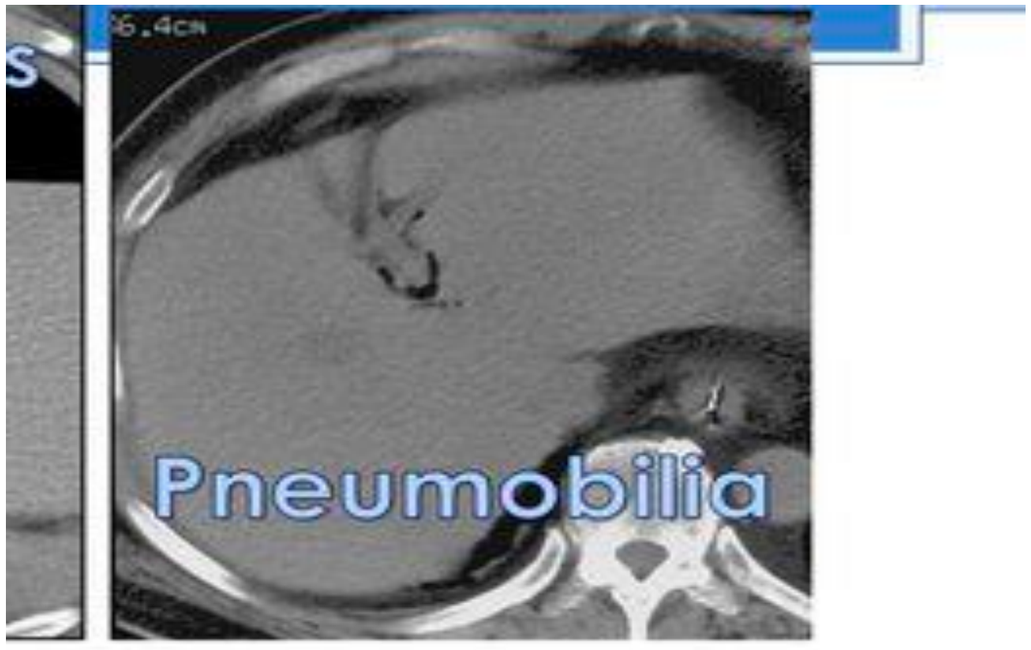


Q) Splenic vein is **anterior** to pancreas:

False

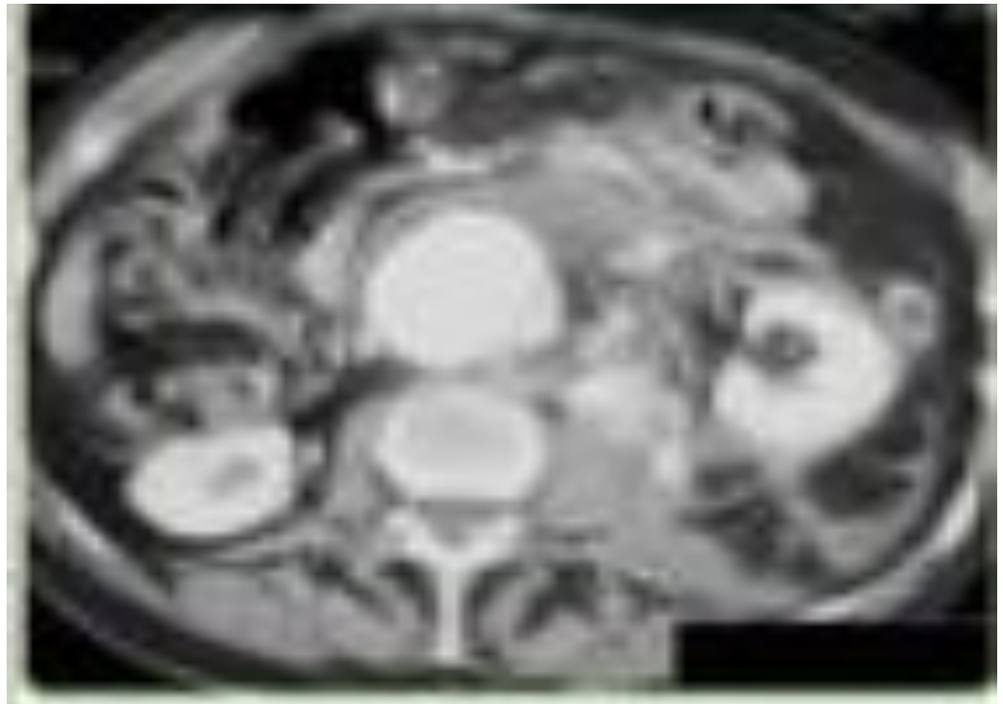
Q) **Pneumobilia** present centrally?

True



Q) Extravasation of contrast meaning there is ongoing bleeding?

True

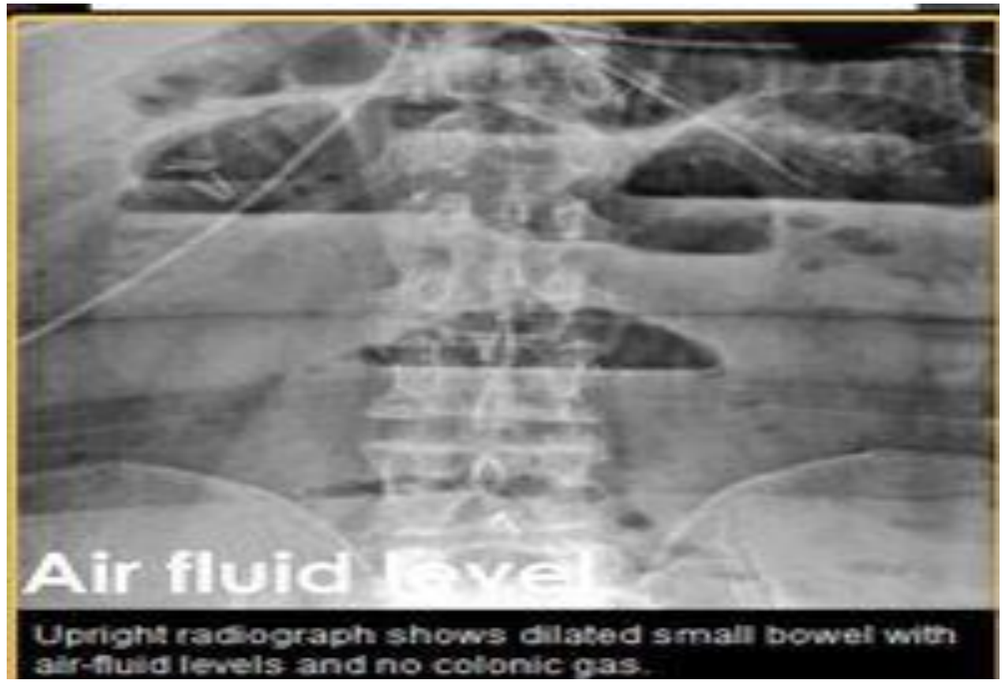


Q) Does **claw sing** seen in sb obstruction?

False

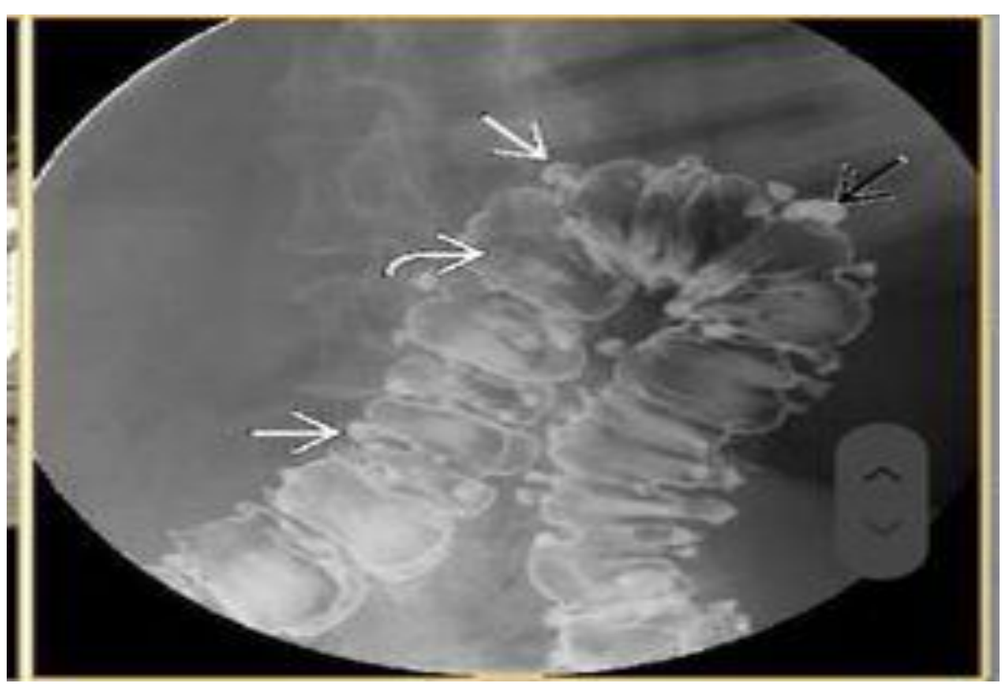
Q) This picture represents **small bowel obstruction**?

True



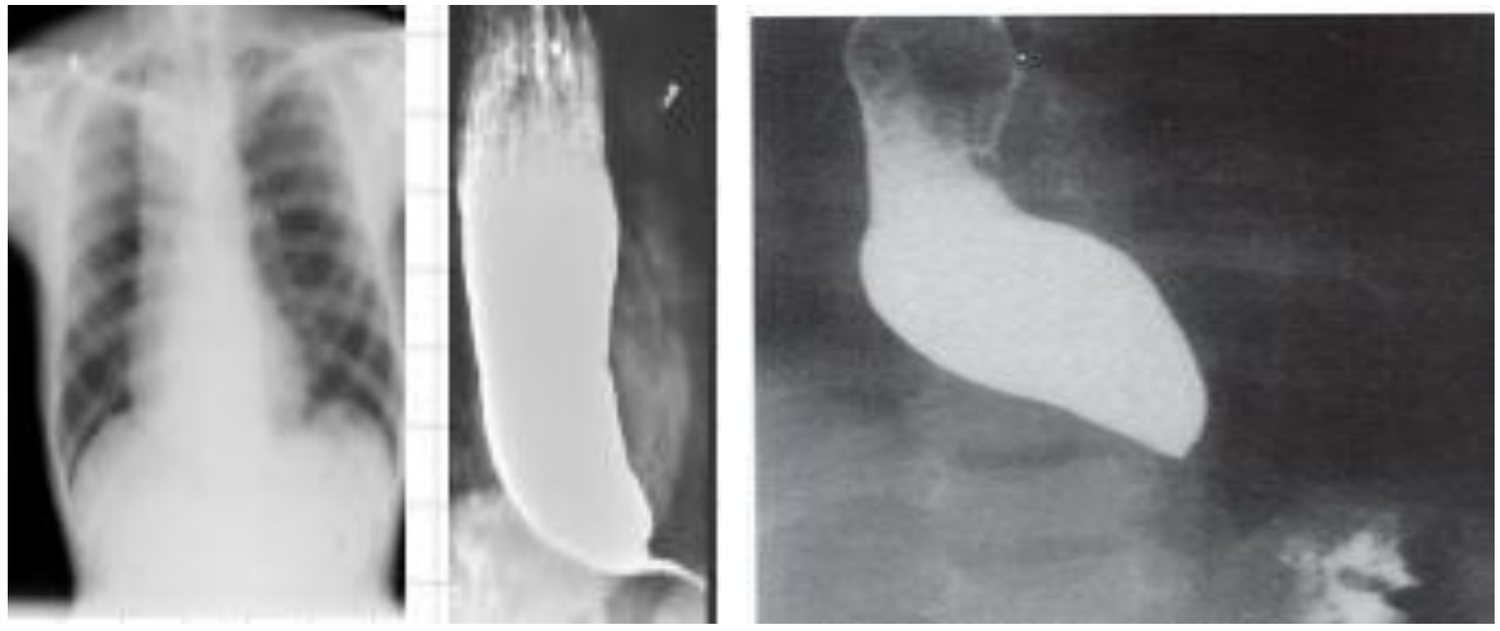
Q) This picture represents **Colonic polyp**?

False



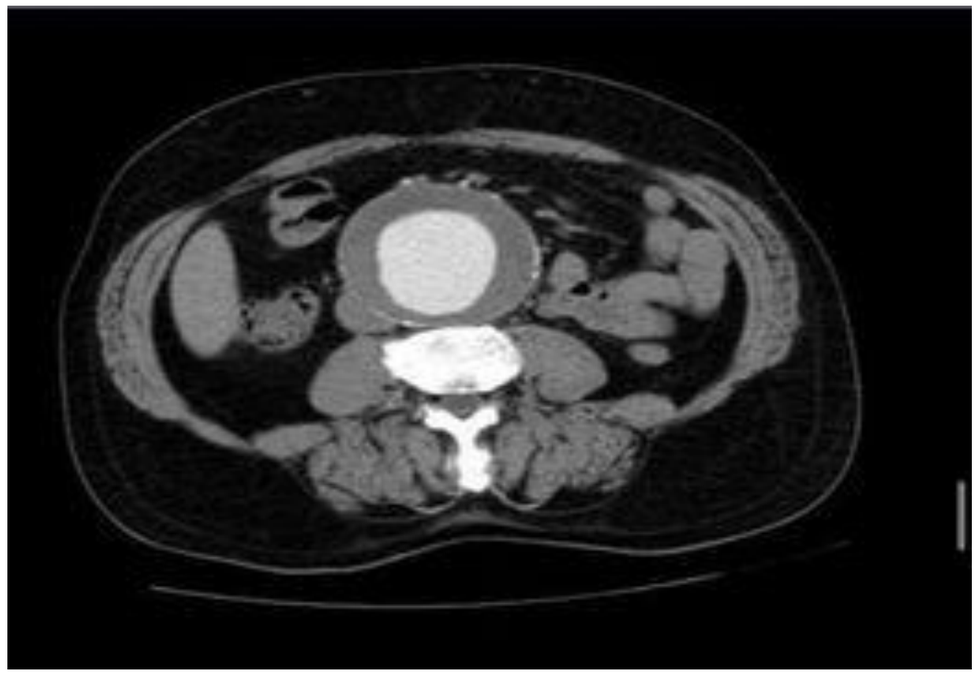
Q) This picture represents **achalasia**?

True



Q) There's a **rupture** in this Axial CT scan?

False

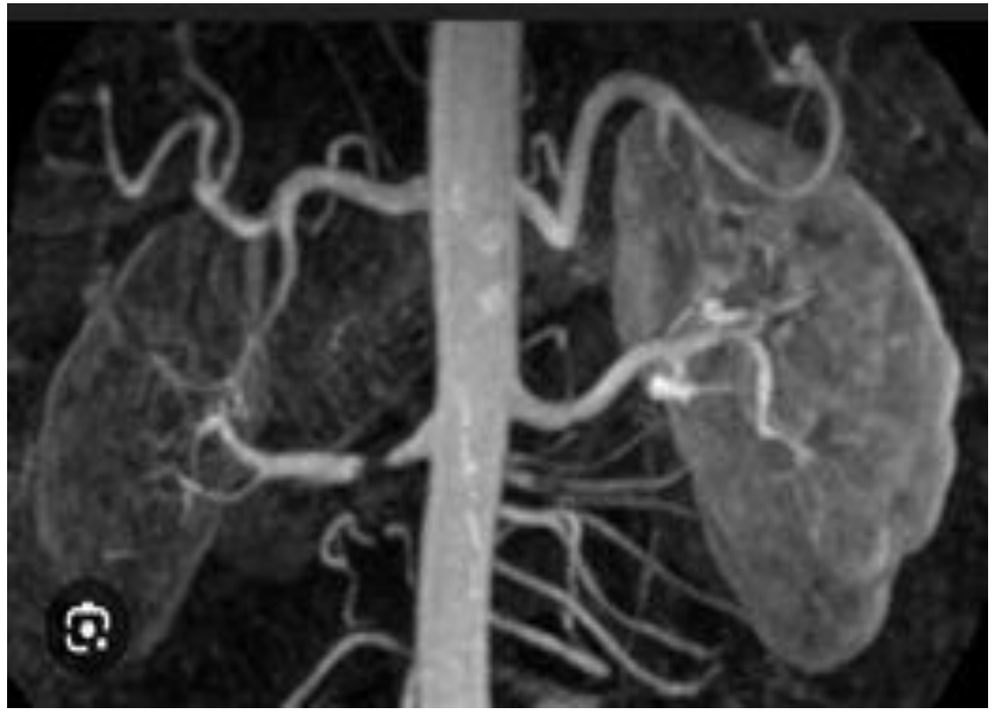


Q) This picture represents **PE**?

True

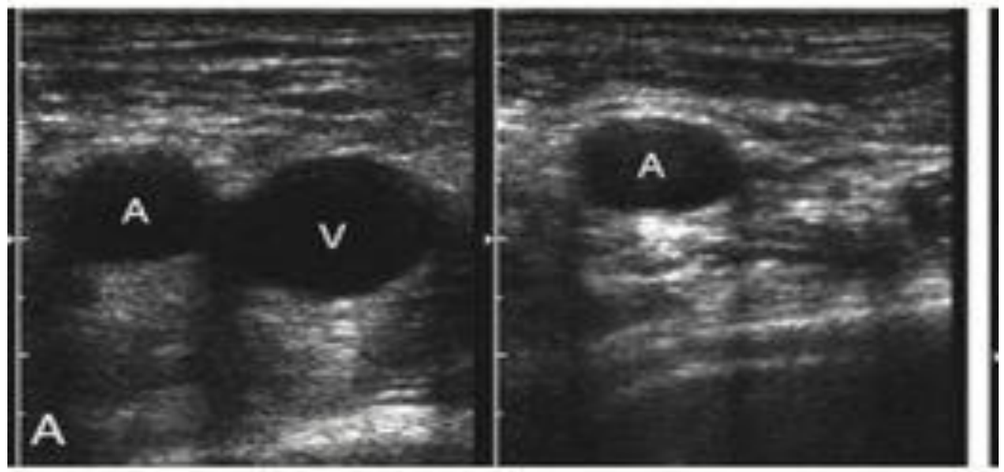
Q) This picture represents **bilateral proximal stenosis** in renal arteries?

False



Q) This picture represents **DVT**?

False

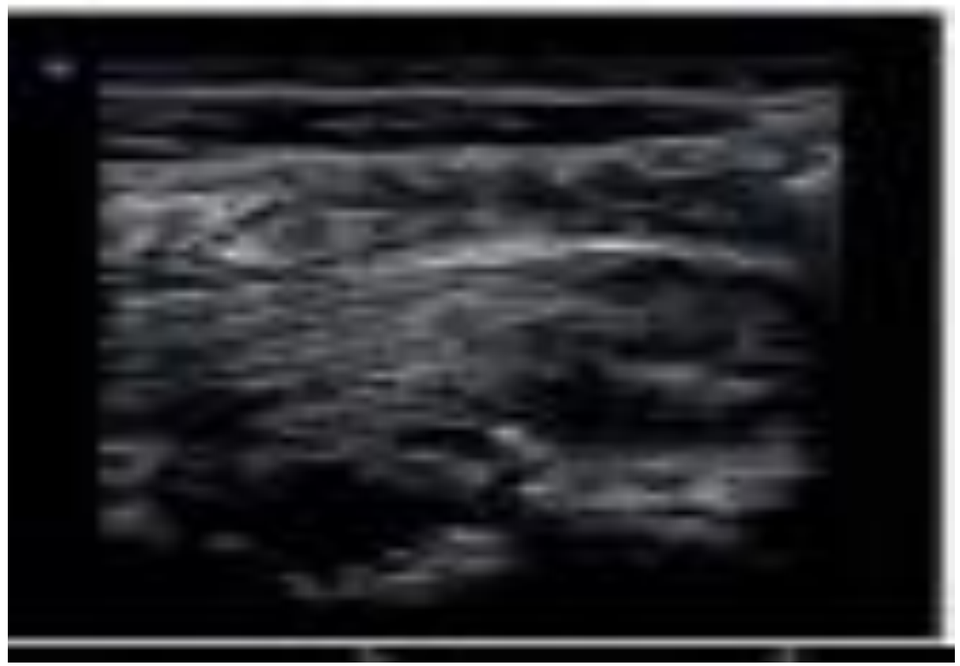


1) What this picture represents? **Claw sign**
2) What is your diagnosis? **intussusception**
3) What is the test that been used? **Barium enema**

1) What this picture represents? **pseudo kidney sign**

2) What is your diagnosis? **intussusception**

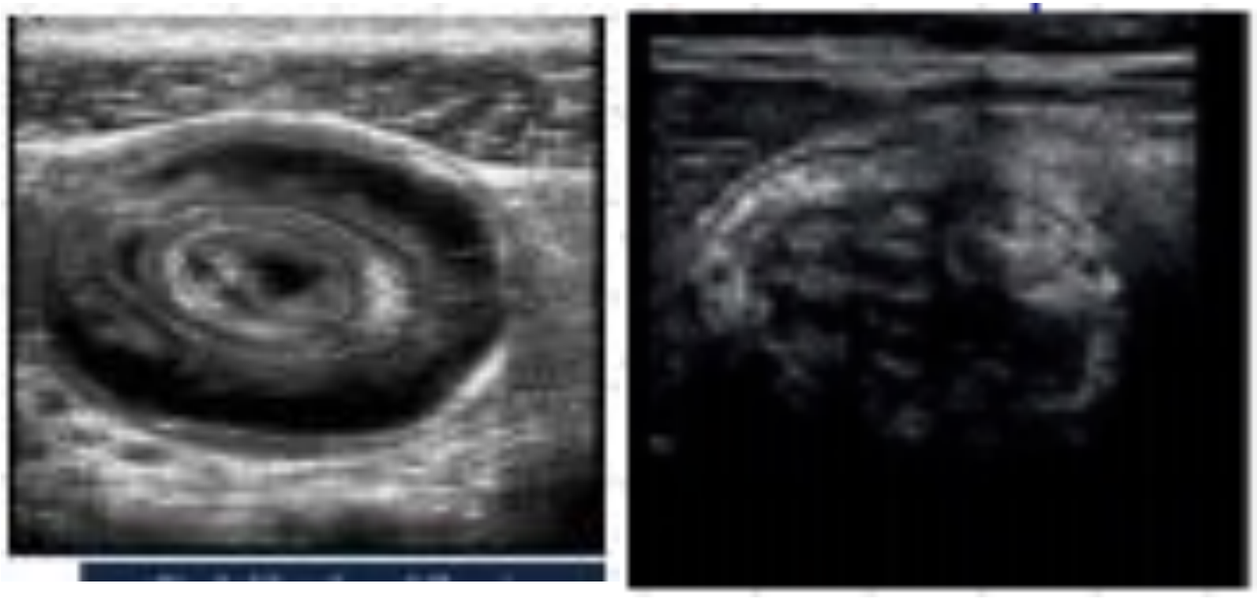
3) What is the test that been used? **Longitudinal Abd**



1) What this picture represents? **donut sign**

2) What is your diagnosis? **Trapped mesentery**

3) What is the test that been used? **Transverse U/S**

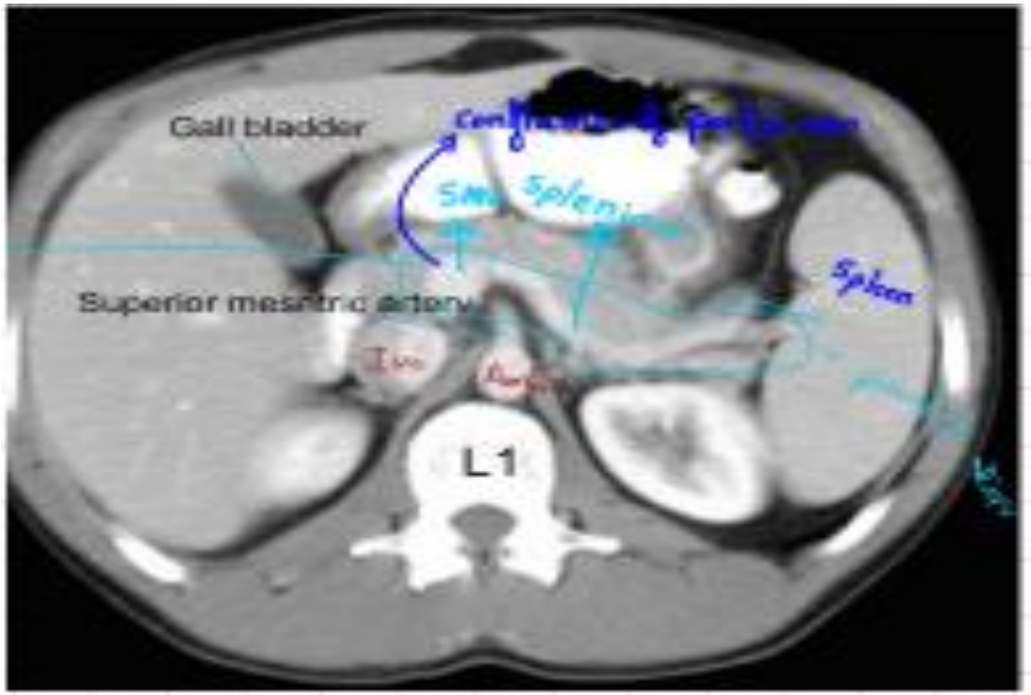


1)What's the name of the study?

abdominal CT scan with IV and oral contrast, axial view>

2)asking to identify pointed structures?

SMA, Gallbladder, IVC, Spleen



1) What is the name of this imaging?

Axial abdominal CT without contrast.

2_ Radiological findings?

Hypodensity of the biliary tree within the liver, due to air in the biliary tree (pneumobilia).

3) Mention 3 causes of this finding?

Post-ERCP, sphincterotomy, gallstone ileus.

1) What is the name of this imaging?

Axial abdominal CT without contrast. (It was the same picture but without the contrast)

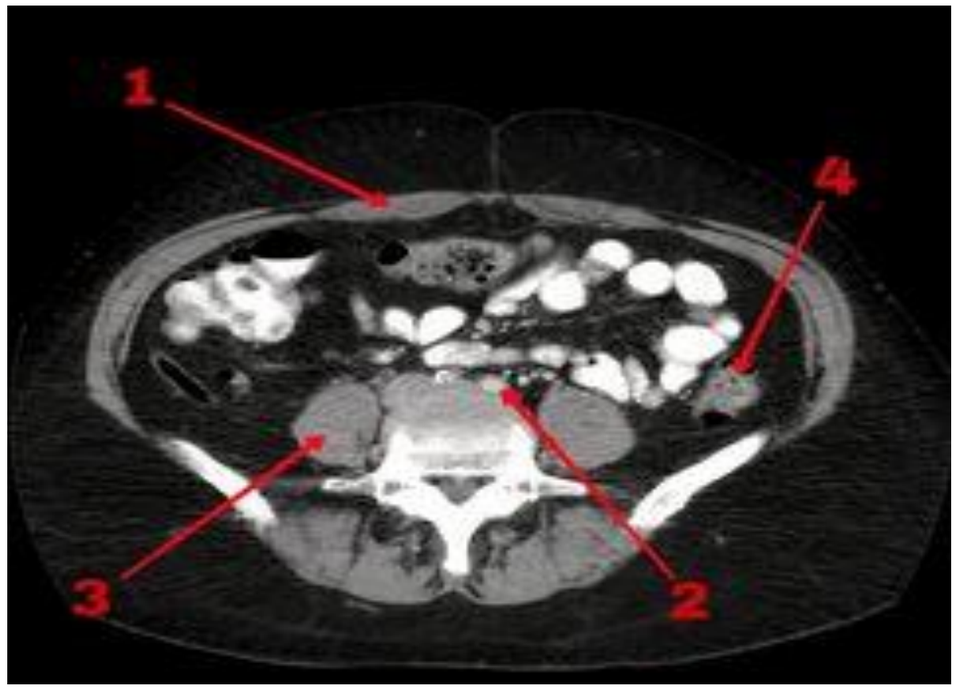
2) Identify the labelled structures?

1) Right rectus abdominis muscle

2) Left common iliac artery

3) Right psoas muscle

4) Descending colon



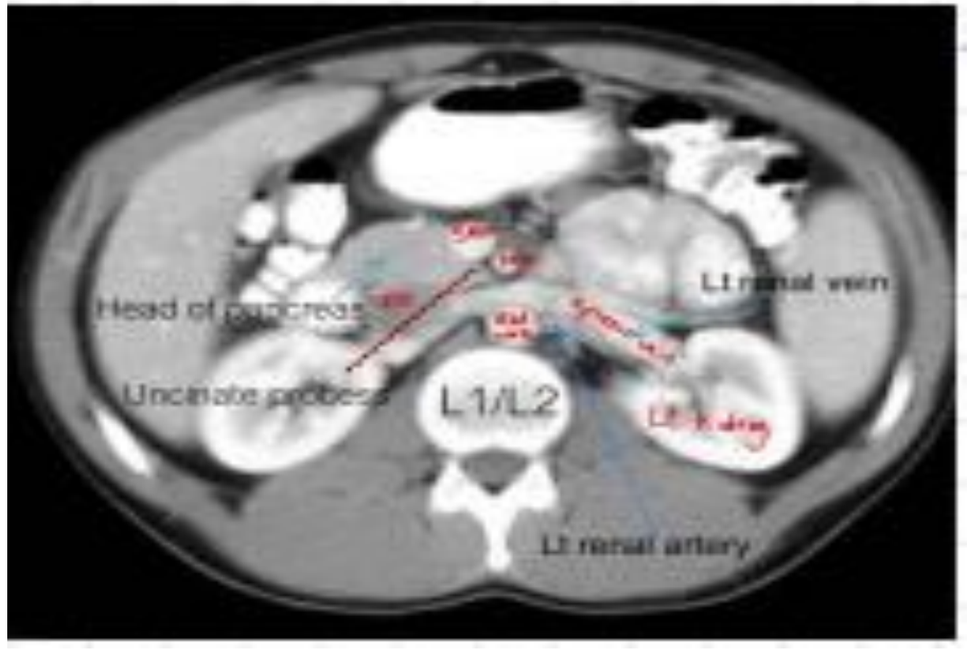
Q) CT abdomen with arrows asking about….

A) Name of this study and with contrast or not?

Abdominal CT scan, axial, with oral and IV contrast

B) Name each Structure:

Portal vein, splenic vein, Left kidney, uncinate process of pancreas.



Q) An abdominal CT scan question showing ruptured abdominal aortic aneurysm with sign of contrast extravasation.

A) Name of this study?

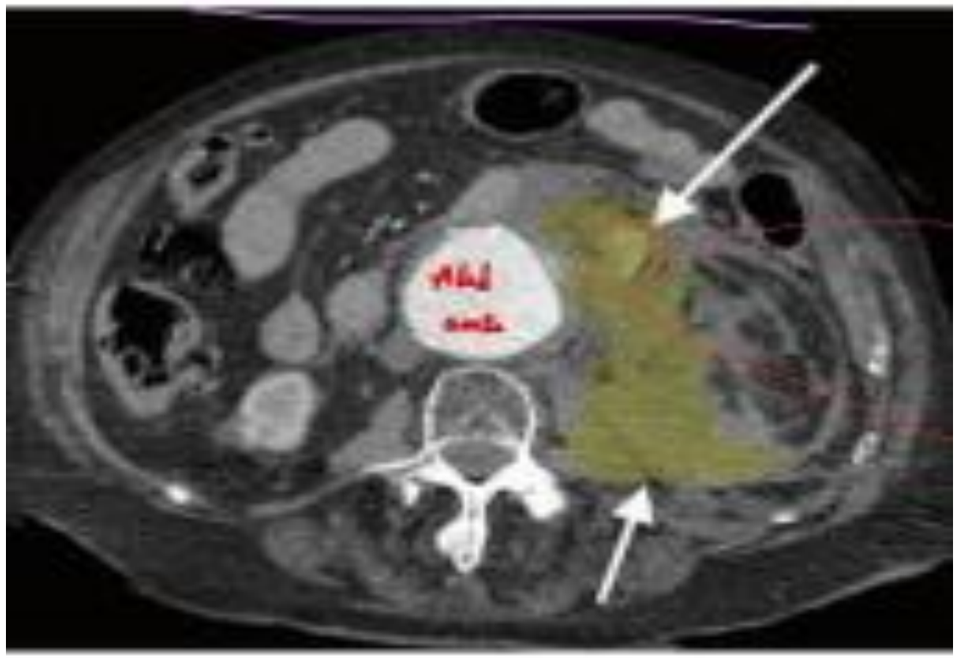
abdominal CT scan with IV contrast

B- Describe findings?

ruptured abdominal aortic aneurysm with sign of contrast extravasation

C- Diagnosis?

Ruptured abdominal aortic aneurysm with active bleeding.



A) Name of this study?

Axial CT abdomen with oral and IV contrast.

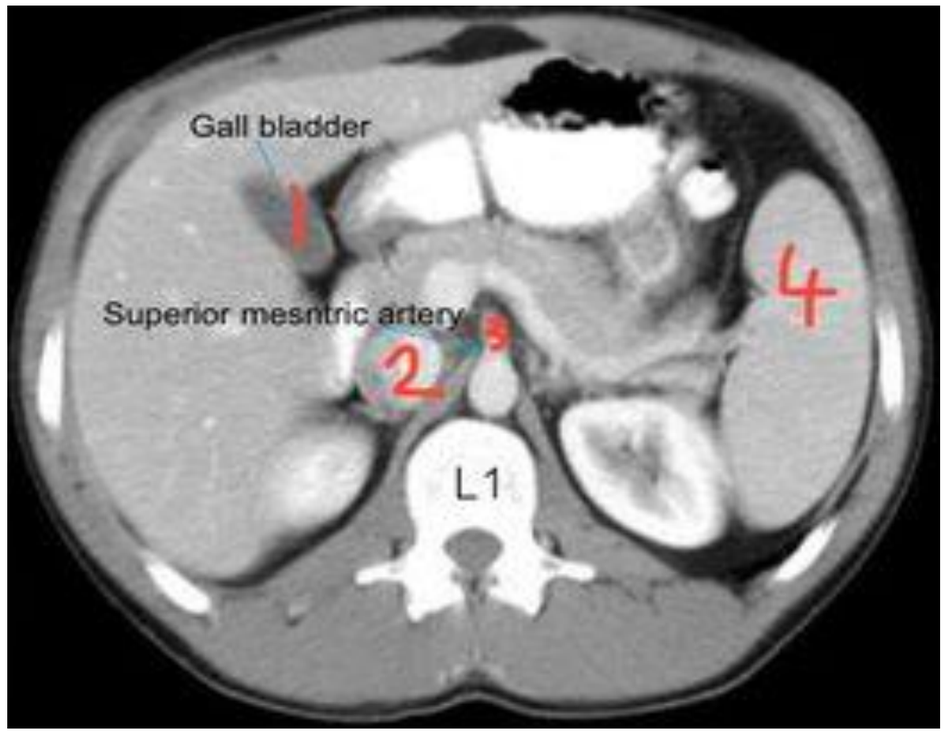
B) Identify the labelled structures?

1-Gallbladder

2-IVC

3-SMA

4-Spleen



A) What structure is this?

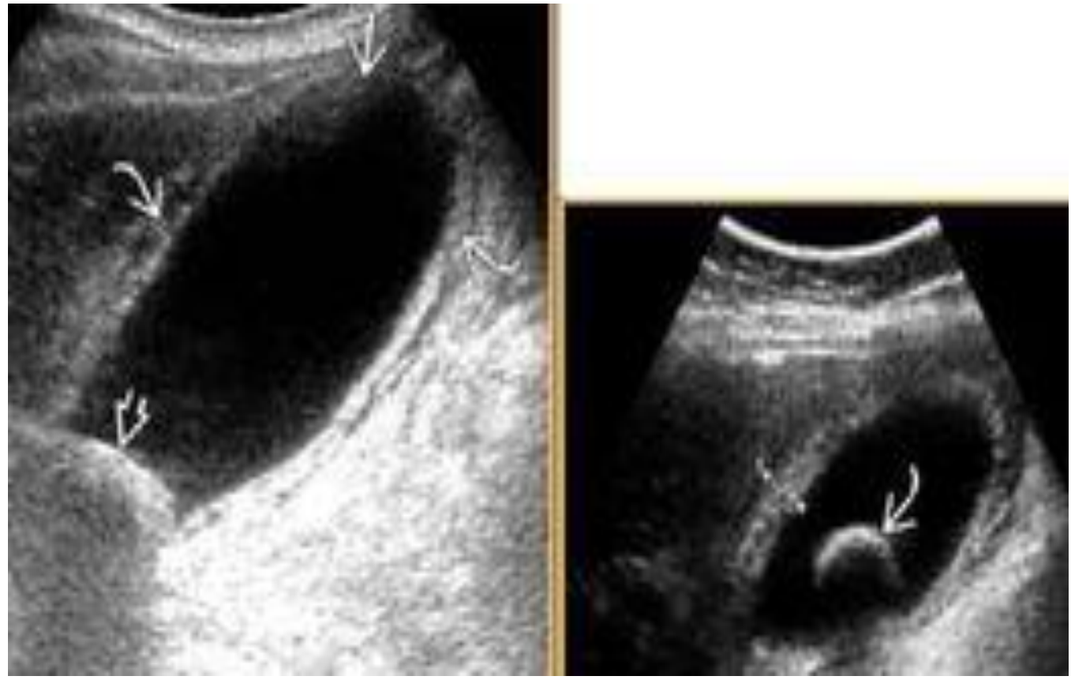
Gallbladder

B) What are the Radiological Findings?

Pericholecystic edema, wall thickening, stone with shadow

C) What is the diagnosis?

Gallstone



A) What's is the Name of this study?

Abdominal CT axial cut with IV contrast without oral contrast

B) What are the Radiological Findings?

Dilation of the abdominal aorta with blood filling the peritoneum and multiple hyper densities (extravasation sign)

C) What is the diagnosis?

Ruptured AAA with active bleeding

A) What's is the Name of this study?

Axial CT of the male pelvis with IV contrast and no oral contrast

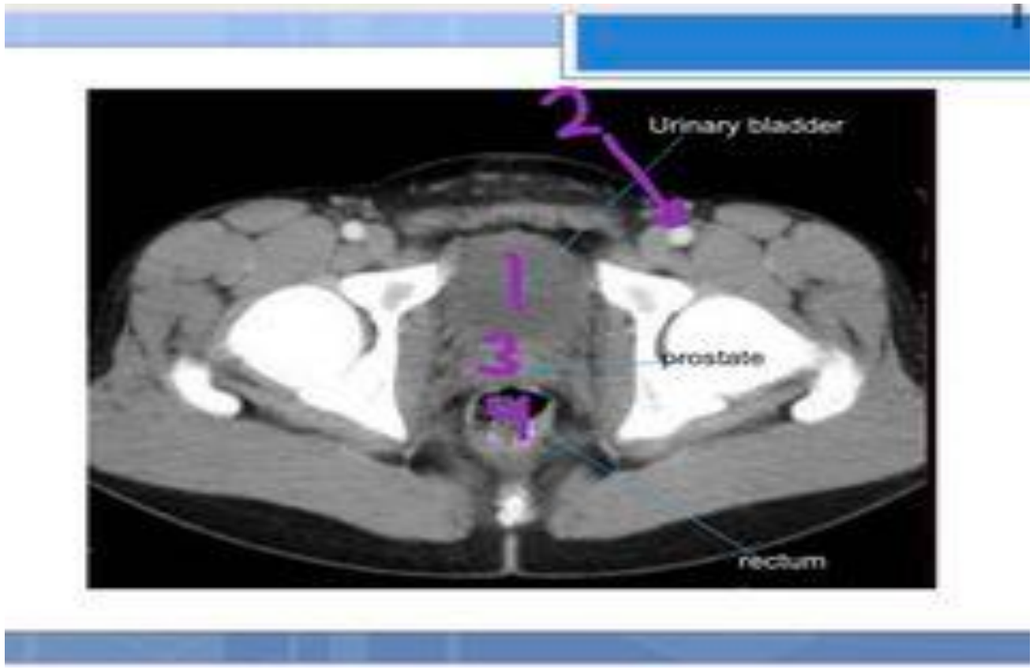
B) Identify the labelled structures?

1- urinary bladder

2- Left common femoral artery

3 – prostate

4 – rectum



THEORY

ULTRASOUND

1) All are good conditions for Ultrasound except:

a. thin patient

b. Children

c. Recent endoscopy*

d. Full bladder

2) All are required in U/S guided liver biopsy:

a. General anesthesia*

b. IV lines

c. Consent

d. Coagulation studies

e. Patient fasting

3) All use ionizing radiation except:

a. Doppler U/S*

b. Hysterosalpingogram

4) all of the following are true about US except:

a. does not give ionizing radiation

b. better accuracy in obese *

c. can be used to visualize vessels

5) -wrong about U/S liver guided biopsy

a-general anesthesia

b-IV lines

c- fasting

6) The most specific test to detect gallstones is:

a-ERCP

b-OCG

c- U/s

GIS

1) Wrong about abdominal imaging:

a. Free gas can normally be seen 7 days after laparotomy

b. Free gas in bile tract can indicate a fistula

c. Most common cause of pathological Pneumoperitoneum is spontaneous rupture of a peptic ulcer

d. Size of normal colon should be less than 5 cm*

2) Wrong About contrast GI imaging:

a. Water contrast has better mucosal lining than barium contrast*

b. Water soluble low osmolality is the ideal contrast

c. Barium is contraindicated in perforation

3) What is wrong:

a. Mucosal folds increase in number as we go towards ileum*

4) Diverticulosis, which is wrong

A) Usually with pain and abdominal tenderness*

B)20%develop diverticulitis

C) Fistula commonly to vagina and bladder

D) Patients presenting with obstruction need surgery

5) Wrong about Ulcerative colitis

a. Strictures are common”

b. Slightly More common in males

c. 95% in the rectosigmoid area

d. DDx: radiation ileus

e. has malignant potential in many years

6) Not true about barium enema

a. Safety use in perforation”

b. Water insoluble material

c. causes constipation and impaction

d. cheap

7) Barium contrast is absolutely contraindicated in:

a-Trachea esophageal fistula

b. perforated DU

c- Colon CA

8) DU, all true except:

a. Double contrast is superior to endoscopy index

9) In UC Ba enema, all true except:

a.NL segment bet 2 affected areas

10) Regarding Ba enema, one is wrong:

a-Contraindicated in colon perforation

b- BH sulfated is injected per rectum

c- Contraindicated in intestinal obstruction

11) Regarding diaphragmatic hernia, one is wrong:

a-Morgagni hernia is more common on the rt side

b- Bochdalek hernia is more common on the rt side

c- Sliding hernia is more common than rolling type

d- Ba swallow can identify the hernia

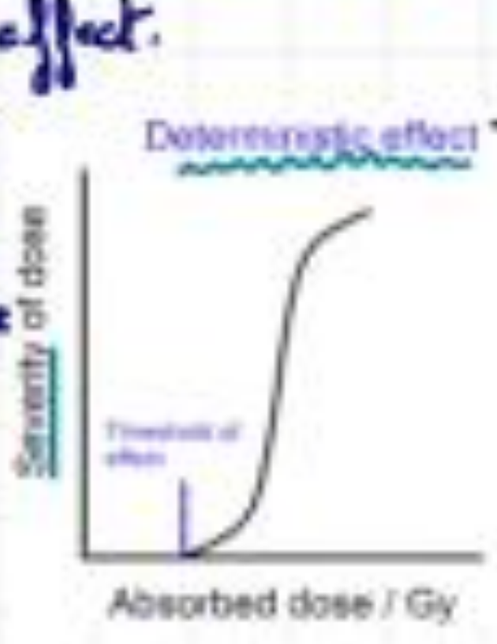
e- Plain X-ray can identify the hernia

12) In abdomen Ct, one is wrong:

a-Per pancreatic hypodense area is pancreatitis

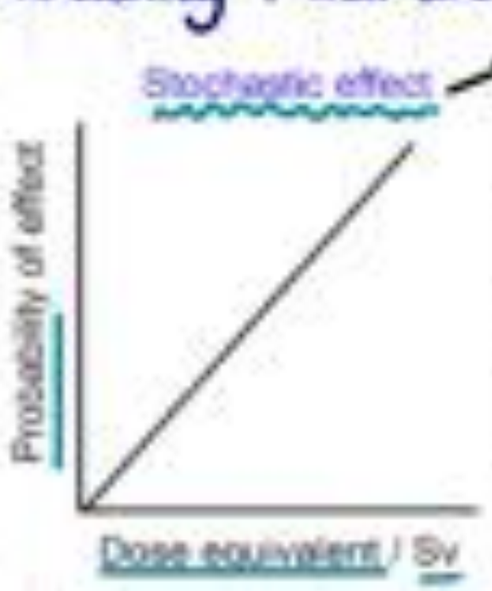
PHYSICS

* Deterministic effects (Early\Acute)
  - ↳ within weeks or months of exposure.
  - ↳ Severity is proportional to dose
  - ↳ Threshold effect.
  - ↳ The result of either ¢ death, or tissue dysfunction.



→ Early: radiotherapy
Late: infertility

* Stochastic effect (late)
  - ↳ years after exposure.
  - ↳ Severity is not dose related.
  - ↳ Probability ↑ with dose.



→ Ca probability

1-Lead is used because low atomic number: **False**

2-In sliding hernia GEJ slide out to the chest: **True**

3-abdominal aorta divides into two branches at the level of L5: **False**

4-Protection in radiation done by justification dose control shielding: **False**

5-Testicular cancer →deterministic effect: **False**

6-Infertility is one of the late (Stochastic) Effects of radiation: **False**

7-Lt. adrenal gland is higher than Rt. adrenal gland: **True**

8-Doubling the distance from a radiation source result in the radiation dose being reduced to half: **False, not sure)**

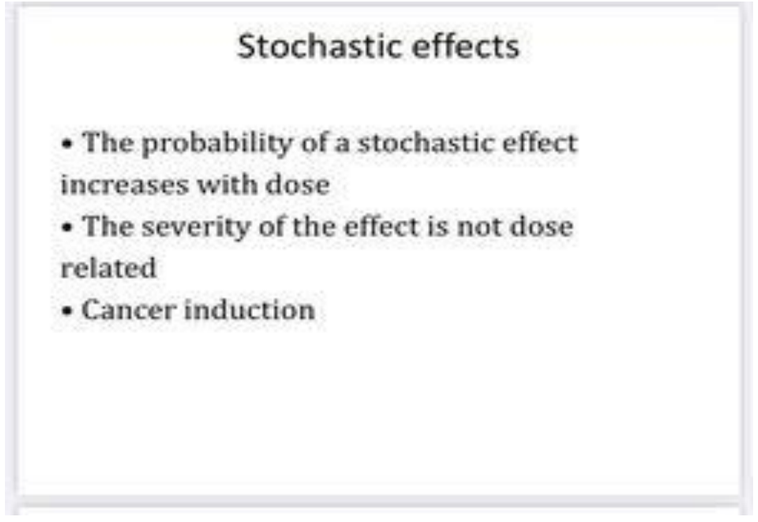
9-Bone marrow is relatively very sensitive to radiation: **True**

10-ALARA stands for as low as reasonable applicable: **False**

11-Double distance from source decrease dose by the same factor: **False**

12-Lt kidney higher than right kidney: **True**

13-Use Iodine in bone scan: **False**



14-Injury after years of exposure is known as latent effect: **True**

15-Radiation projection is achieved by optimization, justification and dose limitation: **True**

16-You can decrease radiation exposure by increasing distance from the source: **True**

17-Unborn children are affected by radiation the most during the first 3 months of gestation: **True**

18- infants are most sensitive to radiation during 1st 3months: **True**

19- shortening the distance protects from radiation: **False**

20- Decreased radiation exposure with decreasing the distance: **False**

21- Unborn baby is mostly affected from radiation during the first mp3 months of pregnancy: **True**

22- Justification, optimization and dose limitation and main principles in decreasing radiation exposure: **True**

23- The signs and symptoms that show after months or years after radiation exposure is called latent effects: **True**

Q) radioprotective equipment's…

A-Name each of showed equipment's?

Lead apron and thyroid collar.

B-What is the material made from?

lead

C-Other protective tools?

1) Mention one contraindication to the administration of iodine dye?

Allergy

2) What's the name of the graphs A & B?

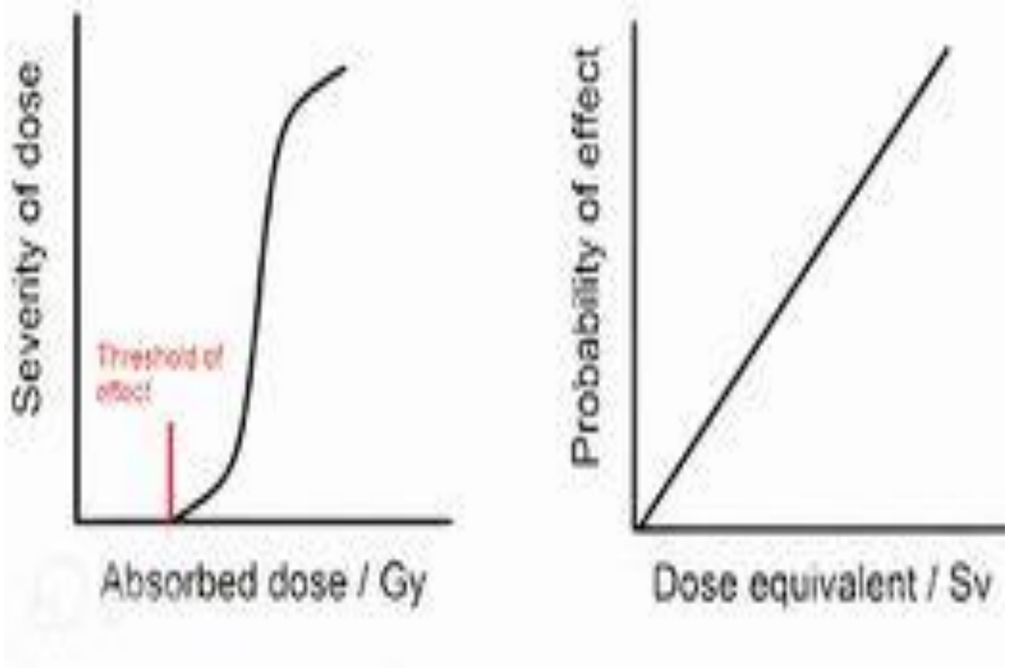
Deterministic & stochastic.

3) What's the dose-response relationship between radiation, & leukemias & mutations?

Stochastic, severity of response doesn't depend on the dose.

4) What's the dose-response relationship between radiation, & acute cell injury?

Deterministic, severity of response is proportional to the dose



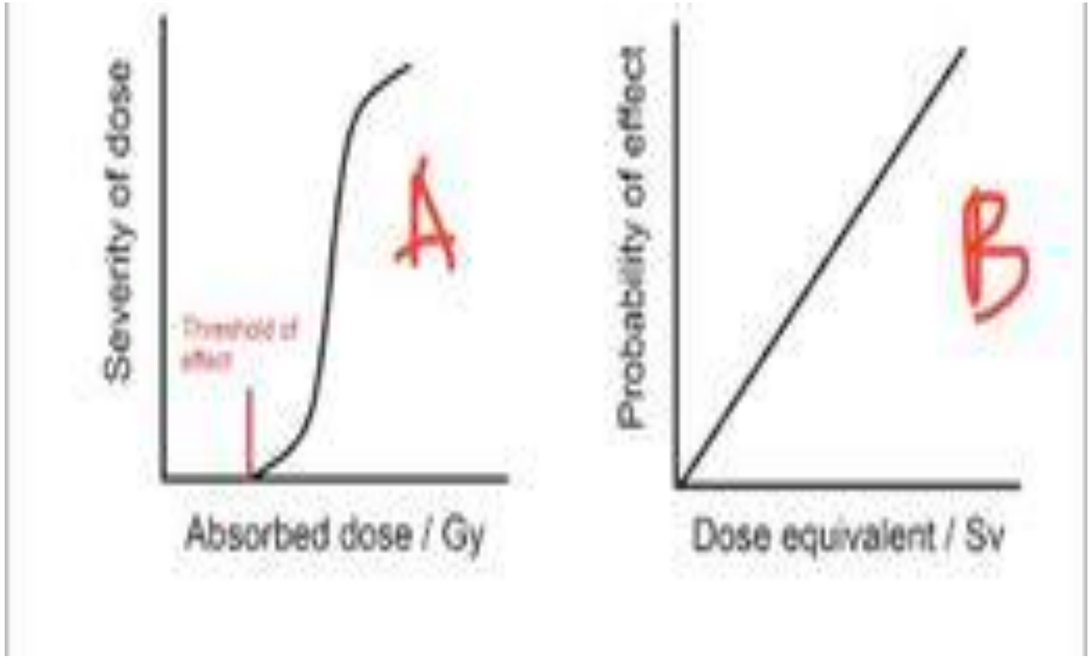
A) What does the dose represent in each picture?

A: Deterministic

B: Stochastic

B) leukemias are: **stochastic**

C) Early effects are: **deterministic**



Q) Types of protecting agents in this image:

Googles: prevent lens cataract

Neck collar: protect thyroid

Q) Material used in shielding:

lead

CHEST X-RAY

1-what is the study?

Chest x-ray, erect, inspiratory effort, PA view, for a skeletally mature female patient.

2) mention radiological Findings?

There is an opacity in the left middle and lower zone of the left lung Feld, with well-defined borders, dense, homogenous, there is no calcifications, no cavitations, no air bronchograms, it's silhouetting the left heart border and the left hemi diaphragm border, showing the meniscus sign, and there is an obliteration of the left costophrenic angle's there is no signs of volume loss .

3)what is the most likely diagnosis?

Left sided pleural effusion

Q) Three Qs for the same pic….

1.the right visceral pleural line can be seen: **(true)**

2.the left lung markings are absent: **(false)**

3.this is a normal chest x ray: **(false)**

Q) This picture represents anteroposterior imaging?

False

Q) Type of study, findings, diagnosis?

PA chest x ray showing radiolucency on the right with apparent visceral pleural line and shifted mediastinum to the left, dx right sided tension pneumothorax

1. The name of this imaging?

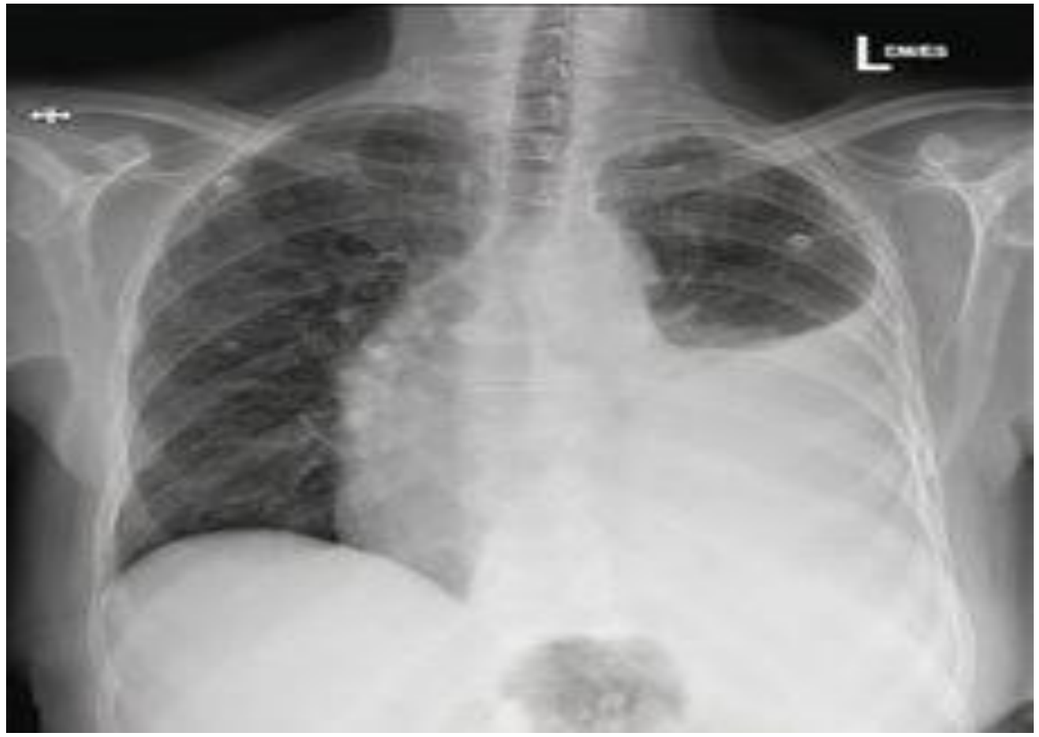
PA chest X-ray.

2. Radiological findings?

Left-sided opacification involving the middle & lower zones of the lung, blunting the Costo-diaphragmatic angle & silhouetting the left heart border & the left hemidiaphragm. There's also meniscal sign.

3. Diagnosis?

Left-sided pleural effusion.



Q) A case showing x-ray and CT….

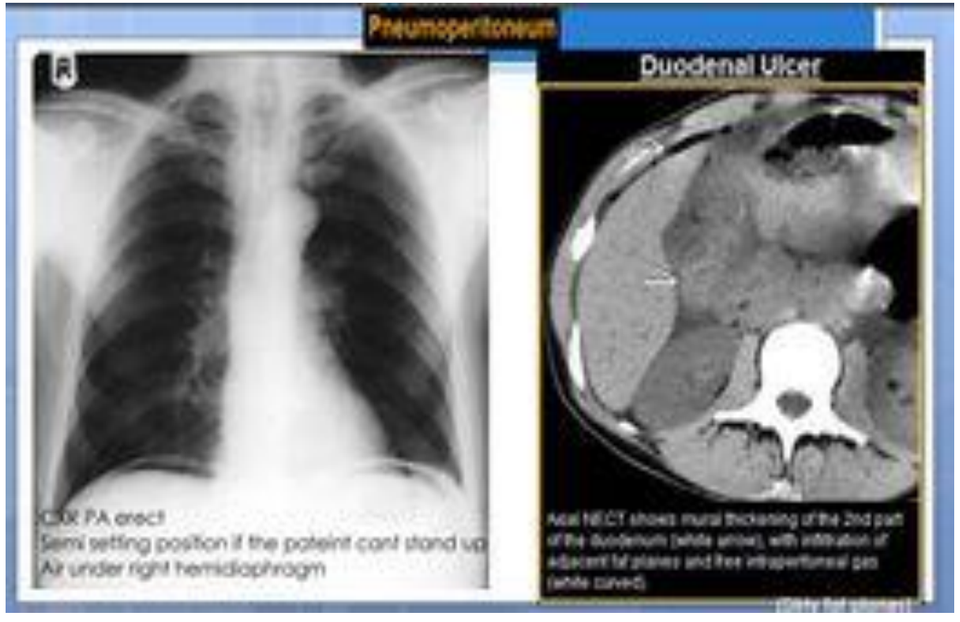
A-What are the findings?

In x-ray there was air under diaphragm.

in CT there was air intraperitoneal ant. to liver with thickening of the second part of duodenum

B-Diagnosis?

perforated duodenal ulcer



A-What is the name of this study?

PA Chest X-ray

B- What are the findings?

There was opacification in right middle lobe silhouetting right cardiac border with no hemidiaphragm involvement

C- What is the diagnosis?

Right middle lobe pneumonia.

A-What is the name of this study?

PA chest Xray

B- What are the findings?

Homogeneous opacity, costophrenic angle obliteration, meniscus sign. All seem to be on the left side although unspecified.

C- What is the diagnosis?

Pleural effusion

A-What is the name of this study?

PA Chest X-Ray

B- What are the findings?

radiolucency in the right lung and the lateral border of the right visceral pleura is visible with mediastinal shift to the left, preserved costophrenic angles on both sides.

C- What is the diagnosis?

right sided tension pneumothorax

Q) This patient will most likely have problems during intubation? **True**

A-What is the name of these studies?

PA chest x-ray... abdominal CT axial cut without contrast

B- What are the findings?

indicating air under the diaphragm / thickening of the second part of duodenum and hyper density anterior to the liver indicating pneumoperitoneum

C- What is the diagnosis?

Perforated duodenal ulcer

THEORY

1) A male patient with non-Hodgkin lymphoma in the mediastinum (6 cm), underwent chemotherapy, after that he did a PET scan that showed a 3 cm mass with no uptake, what's the next step of management:

a. Give more chemotherapy

b. Biopsy

c. Follow up normally with no therapy*

d. Repeat PET scan within 1 week

2) Wrong about CXR:

a. Typically its PA view with full expiratory effort*

b. The distance between the machine and film is 150-200 cm

c. Heart size is exaggerated on AP view

3) Wrong About silhouetting:

a. If middle lobe pneumonia, rt heart border is erased

b. If middle lobe pneumonia, lower surface will be horizontal fissure*

c. If left upper pneumonia, left heart border will be silhouetted

4) About chest imaging:

a. CXR can view nodules

b. Mediastinal window is better than lung window in viewing heart

c. Spiral CT is the imaging modality of choice for PE

5) Wrong About airway disease:

a. Pneumothorax causes ipsilateral flattening of the diaphragm

b. large pneumothorax can obliterate the costophrenic angle*

c. CT is better in detecting air bronchogram than CXR

d. CT can detect small amount of air in pleura

6) High penetration low attenuation:

lung parenchyma*

7) Pneumoperitoneum, which is wrong

Best modality is standing upright x-ray**

8) question about lung lobes pneumonia:

a-Ioxer lobe obliterate diaphragm

b-upper Its lobe may obliterate It heart border

c-middle rt lobe obliterate rt heart border

d-inf Its lobe obliterates descending aorta

e- right middle lobe pneumonia is bounded inferiorly by horizontal fissure **

9) Collapse of right upper lone, which is wrong:

a) Right hilum is higher

B) Diaphragm is higher

C) Shift of mediastinum to the left*

10) wrong about CXR:

a. In AP cardiac size exaggerated

b. easy to do in 5 years old child*

11) in supine position X-ray:

a. Heart size is exaggerated

b. Diaphragm will be higher

c. Prominent upper zone vessels

d. Pleural fluid will accumulate posteriorly and give a decreased density to the hemithorax*

e. A pneumothorax will lie anteriorly and be difficult to detect

12) Wrong about hilum in chest X-ray:

a. The left hilum is higher than the right because left main bronchus arches over left pulmonary artery

b. normally symmetrical

c. caused by pulmonary arteries and veins

d. prominent in pulmonary hypertension

e. can be pulled upwards or downwards by collapse or fibrosis

13) True about the lung

a. High penetration and low attenuation*

b. High / High

c. Low / Low

d. Low / High

14) All cause bilateral small lung except:

a. consolidation*

b. bowel distension

c.suboptimal inspiration

d.obesity

15) all of the following cause a radiolucent hemithorax except:

a. PE

b. small lung

c. mastectomy*

d. emphysema

e. rotation of patient"

16) All the following are signs of collapse due to an opacification on the left upper lung border except:

disappearance of the heart border and the upper lobe on the left side*

b. collapse of the lung to the left side c. elevation of the left hemidiaphragms

c. obliteration of aorta*

e. ill-defined opacity in the left upper and middle zone

17) tension pneumothorax, wrong:

a- pleural line on x-ray

b- absent lung making ipsilateral

c- horizontal hemidiaphragm ipsilateral

d- mediastinum shift to the ipsilateral

18) most attenuation in:

a- liver

b- lung

c- bone

19) tension pneumothorax, wrong

a- pleural line on Xray

b- absent lung making ipsilateral

c- horizontal hemidiaphragm ipsilateral

d- mediastinum shift to the ipsilateral

20) chest CT for asthma pt, preparation by

a- oral prednisolone

b- inhaler steroids

c- IV hydrocortisone

21) super scan not in:

a- pulmonary osteodystrophy

b- Osteoclasia

c- Hyper Para

22) allergy to contrast material in all except

a- asthma

b- atopy

c- hypothyroid

23) All are radiological signs that favors CA bronchus except:

a- Peripheral calcified nodule

b- Lymphangitis carcinomatosis

c- Hilar LN

24) All will cause diffuse nodular CXR except:

a- Sarcoidosis

b- Wegener's

25) In chest X-ray, one is wrong:

a- Rt dome of diaphragm is higher than Ith

b- Minor fissure appears in ant. Part of 4th space

c- PA X-ray is better than AP

d- Rt hilum is higher than the It

BRAIN CT

1- what is the name of the study?

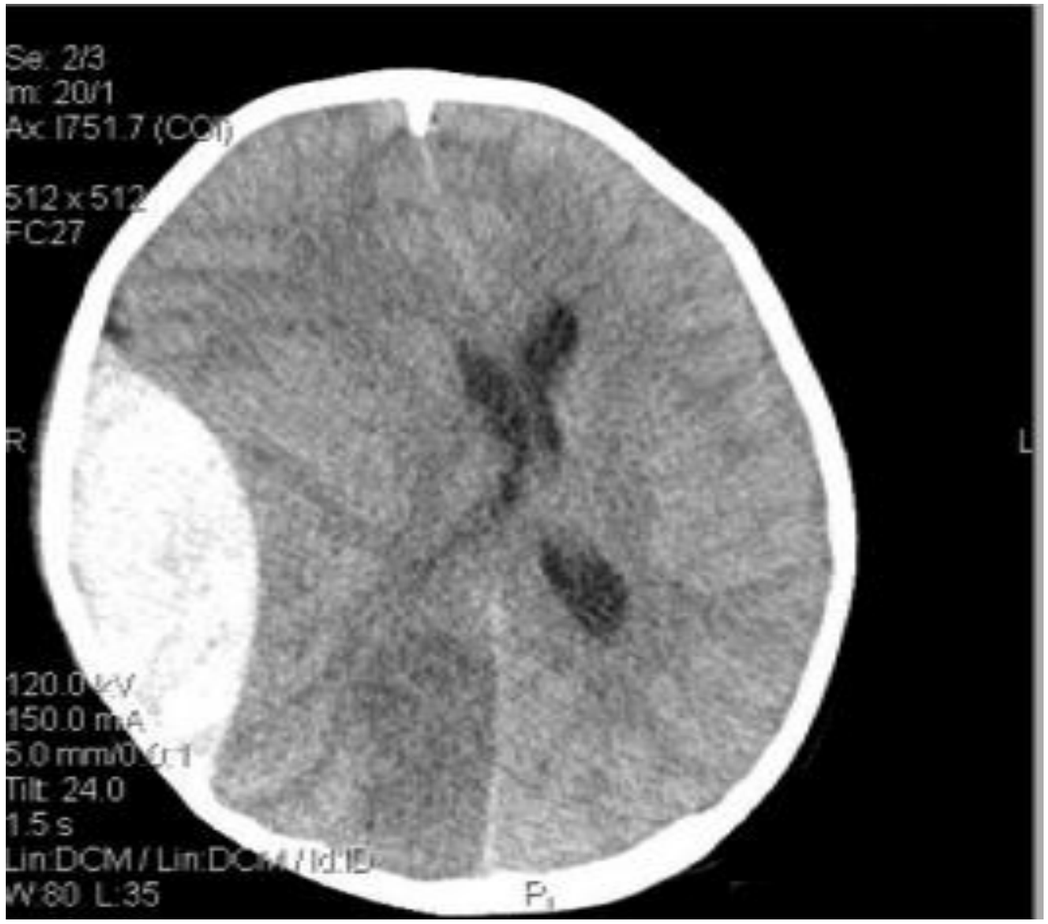
Axial CT scan of the brain, without contrast.

2- Mention radiological Findings?

There is a Hyperdense lens shaped, biconcave area in the Right cerebral hemisphere. There is slight midline shifts to the left side, e<a cement of sulci in the right side, and compression of the ventricles in the right side.

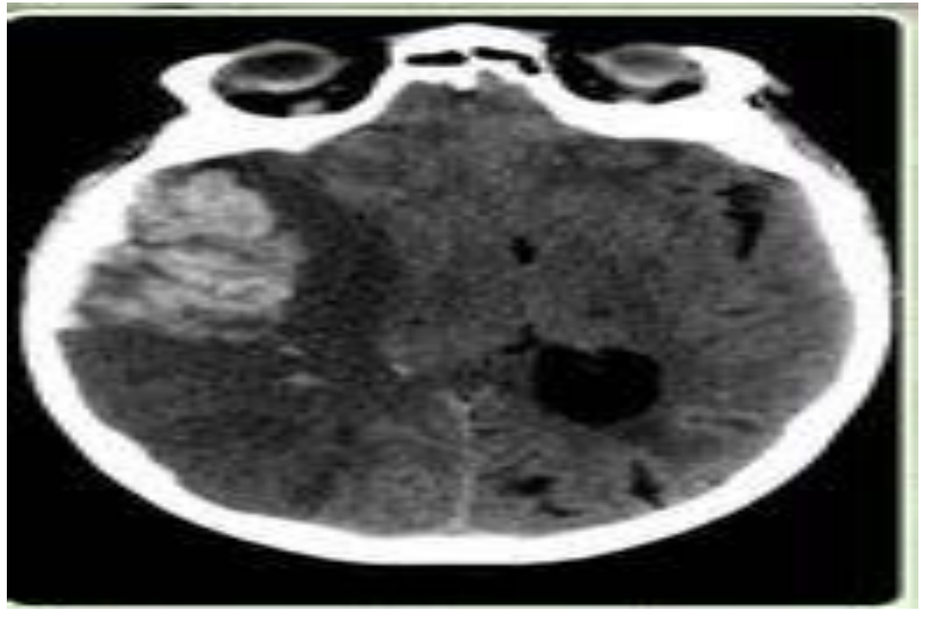
3- what is the most likely diagnosis?

Acute Right sided epidural hemorrhage.



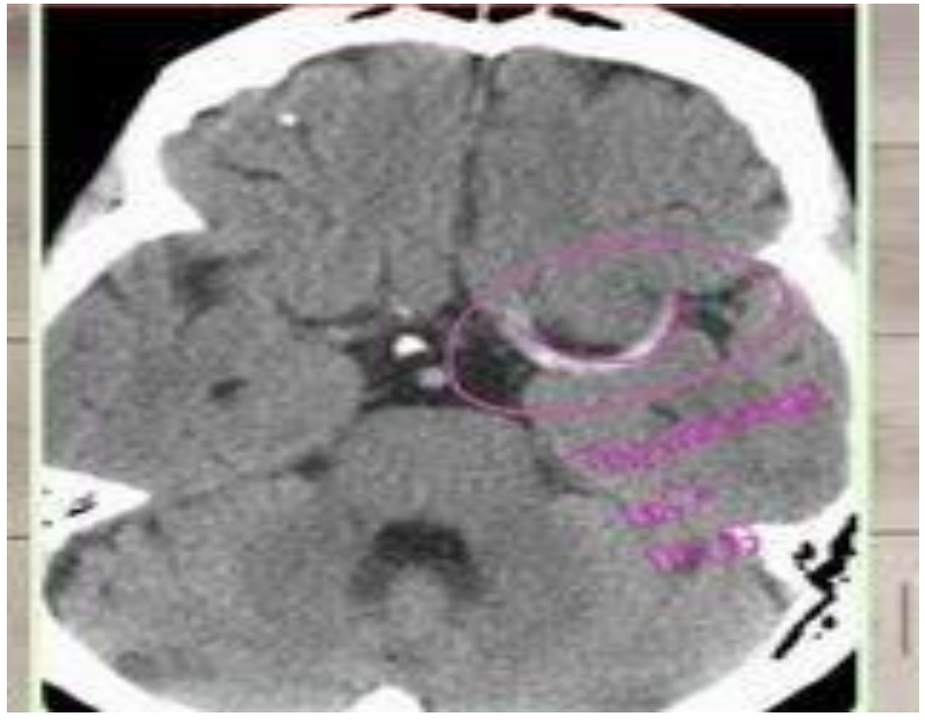
Q) This picture represents non traumatic CT scan hemorrhage due to hypertension?

False



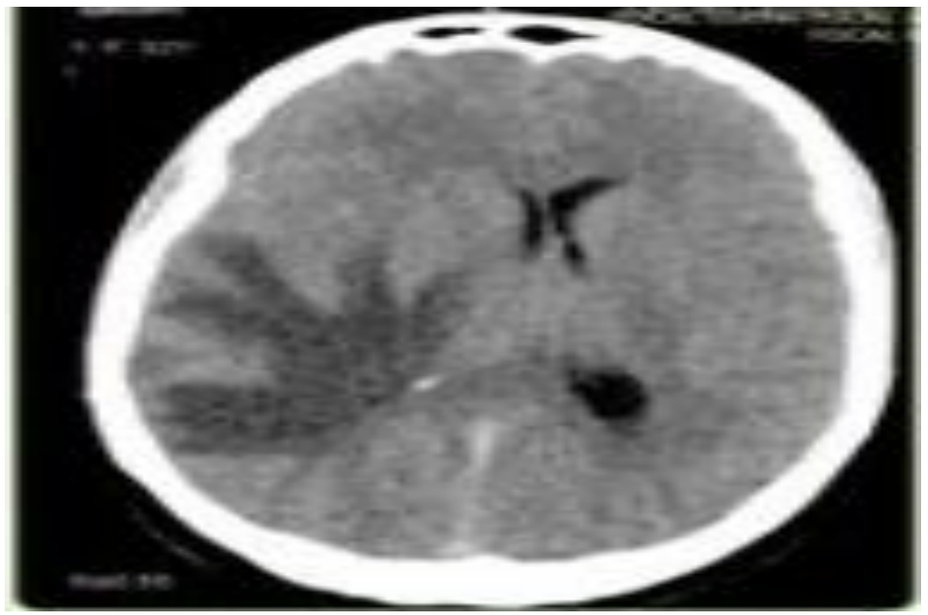
Q) this picture represents **ACA THROMBOSIS**:

False



Q) This type of edema seen at ischemia?

False



Q) This picture represents:

Air bronchogram: False

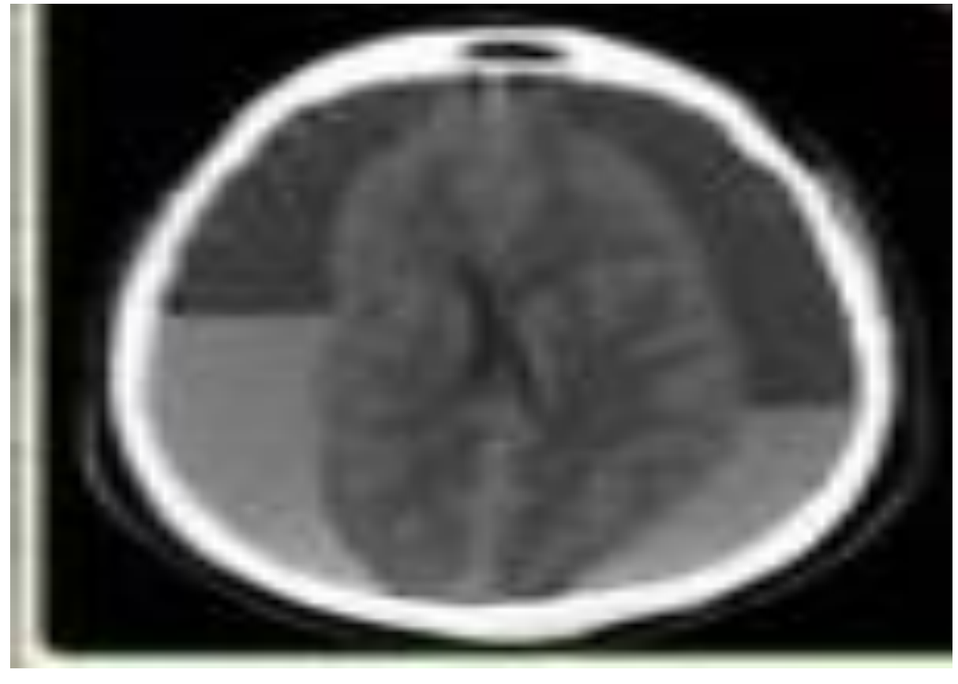
Minor fissure rise up: True

Q)15% of urinary stones seen at x ray:

False

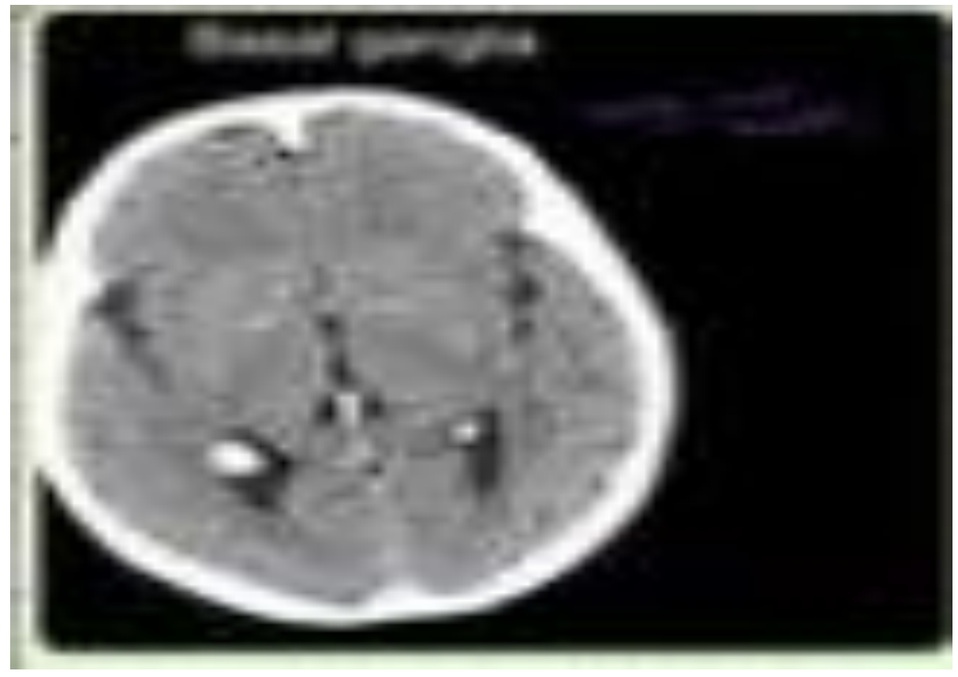
Q) This picture represents acute SDH:

False



Q) Basal ganglia normally seen here (at the picture was written the age of the patient 20 years old):

False

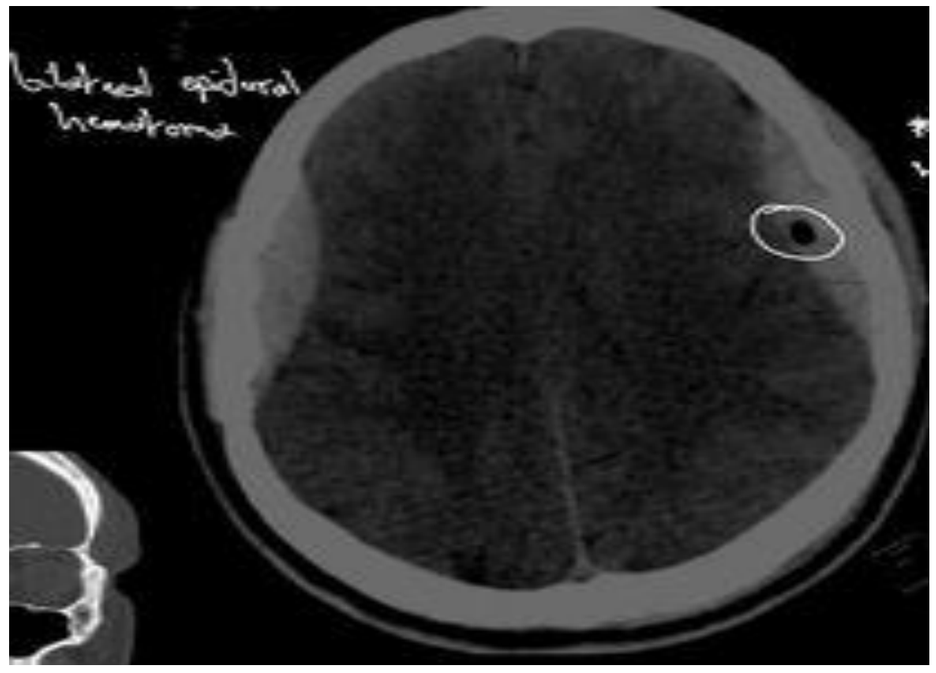


Q) This picture represents **Left ACA infarction?**

True

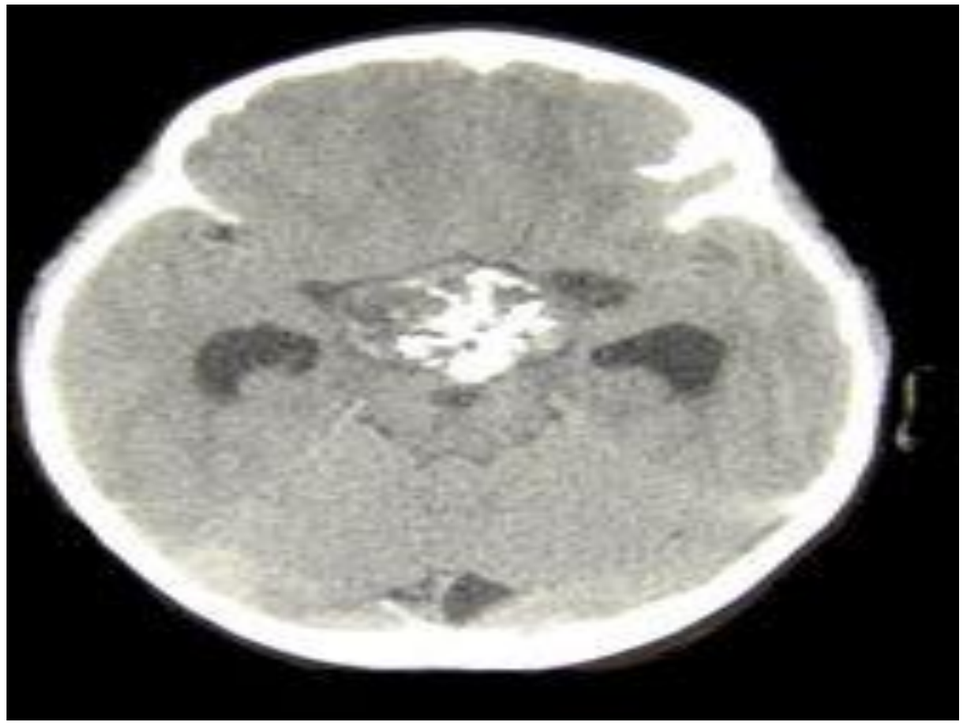
Q) This is a non-traumatic epidural hematoma case:

False



Q) This picture represents Eno glioblastoma?

False

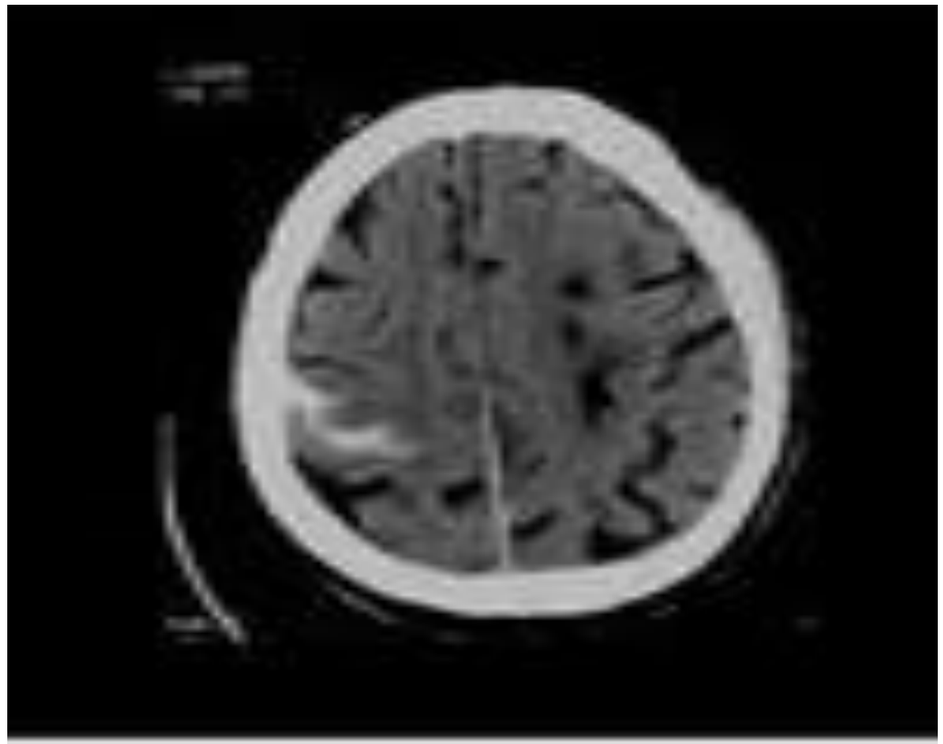


Q) This picture represents **Bilateral ventricular hemorrhage**:

True

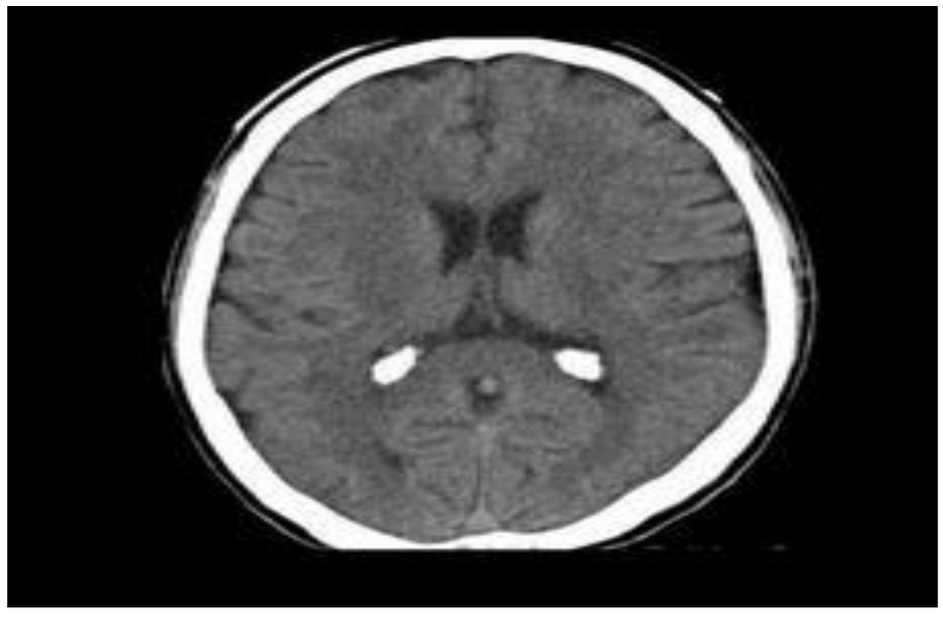
Q) This picture represents **Sub dural hematoma:**

False



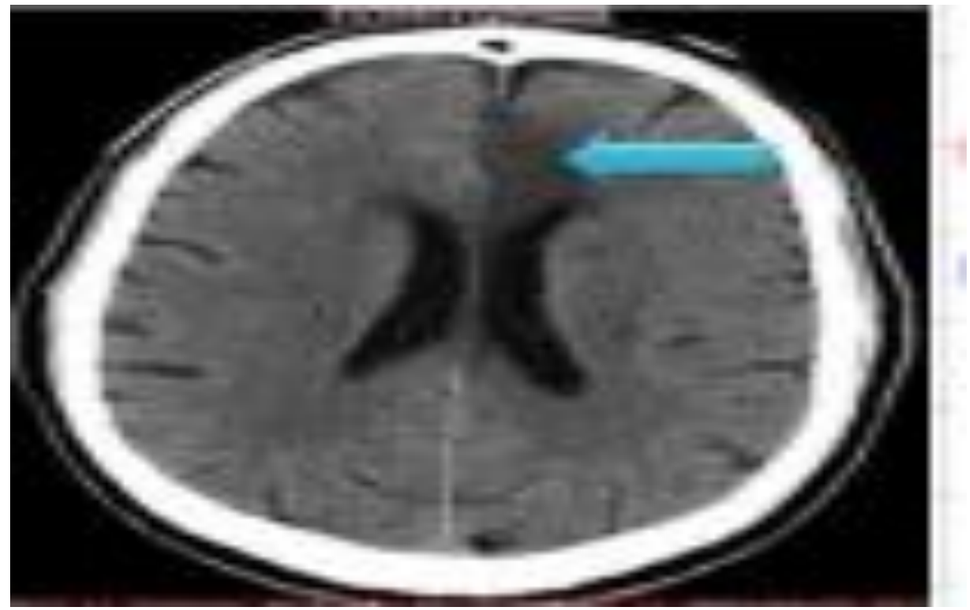
Q) This picture represents **Normal variation:**

True



Q) Type of study and diagnosis?

brain CT scan with infarction of left ACA territory



1- What is the name of the study?

Axial cut brain CT scan

2- Mention radiological Findings?

Bilateral extra axial hypodense around the fronto – parietal region and bilateral hyper density near the parietal REGOIN with midline shift to the left side>

3- What is the most likely diagnosis?

Bilateral acute on top of chronic subdural hematoma

1- What is the name of the study?

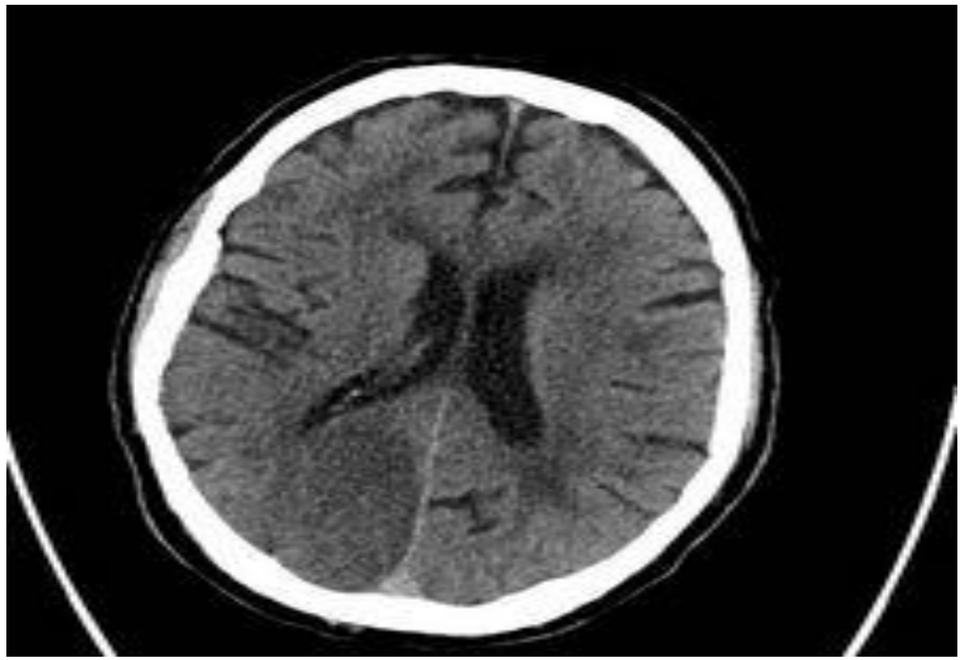
Axial cut brain CT scan Without contrast

2- Mention radiological Findings?

Hypodensity in right hemisphere consistent with PCA territory

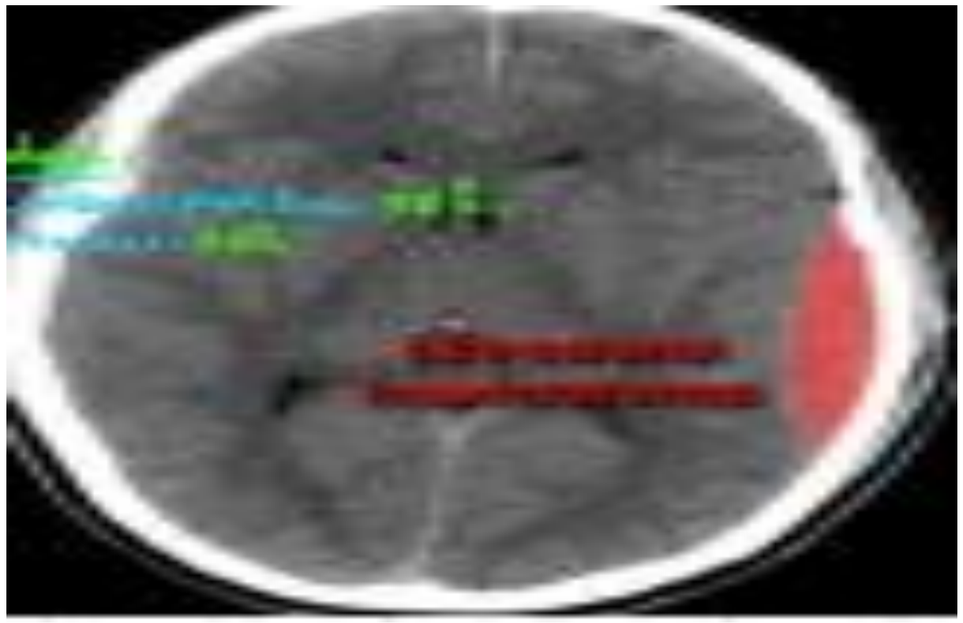
3- What is the most likely diagnosis?

Ischemic stroke due to PCA occlusion on the right side



Q) This picture represents **Epidural hematoma?**

True



1- What is the name of the study?

Axial brain CT without contrast

2- Mention radiological Findings?

Bilateral frontal hypodensity and bilateral occipital hyper density and bilateral ventricular compression

3- What is the most likely diagnosis?

Acute on top of chronic bilateral subdural hemorrhage

THEORY

1) Wrong match:

a. Semilunar hypodense and acute subdural hemorrhage*

biconvex hyperdense and epidural hemorrhage

2) All are seen on CT scan in diffuse edema except:

a. Subarachnoid hemorrhage*

b. Loss of grey-white differentiation

c. small ventricles d. Effacement of sulci and basement cistern

d. Brain is diffusely hypodense on CT

3) Best modality for calcification:

CT

4) Biconvex lesion:

[Acute epidural hematoma*]

5) Normal calcification seen in brain CT all except:

a. Pituitary*

b. Tentorium

c. Carotid artery

d. Falx cerebri

e. Eye lens

6) The best for diagnosis of brain calcification:

a- MRI

b- CT

7) The best to diagnose cavernous sinus thrombosis:

a- MRI

b- MRV

c- CT

d- Doppler U/S

8) One of these lesions is intramedullary:

a- chondromyxoid fibroma

b- enchondroma

c- osteoid osteoma

d- GCT

9) Wrong about extradural hematoma:

a- biconvex hypodense

b- usually traumatic

c- midline shift

d- brain pressure

10) Wrong statement:

infarction with vasogenic edema

11) In brain CT showing hage, one is wrong:

a- Extradural hage appears biconvex

b- Hypodense area due to clot

BRAIN AND SPINAL MRI

1-Name the study, sequences, plain?

All of them are Axial Brain MRI.

Sequences:

1-FLAIR 2-FLAIR at lower level 3- ADC 4- DWI

2- Describe radiological Findings in each sequence?

1- there is a hyperintense area in part of the left ACA territory.

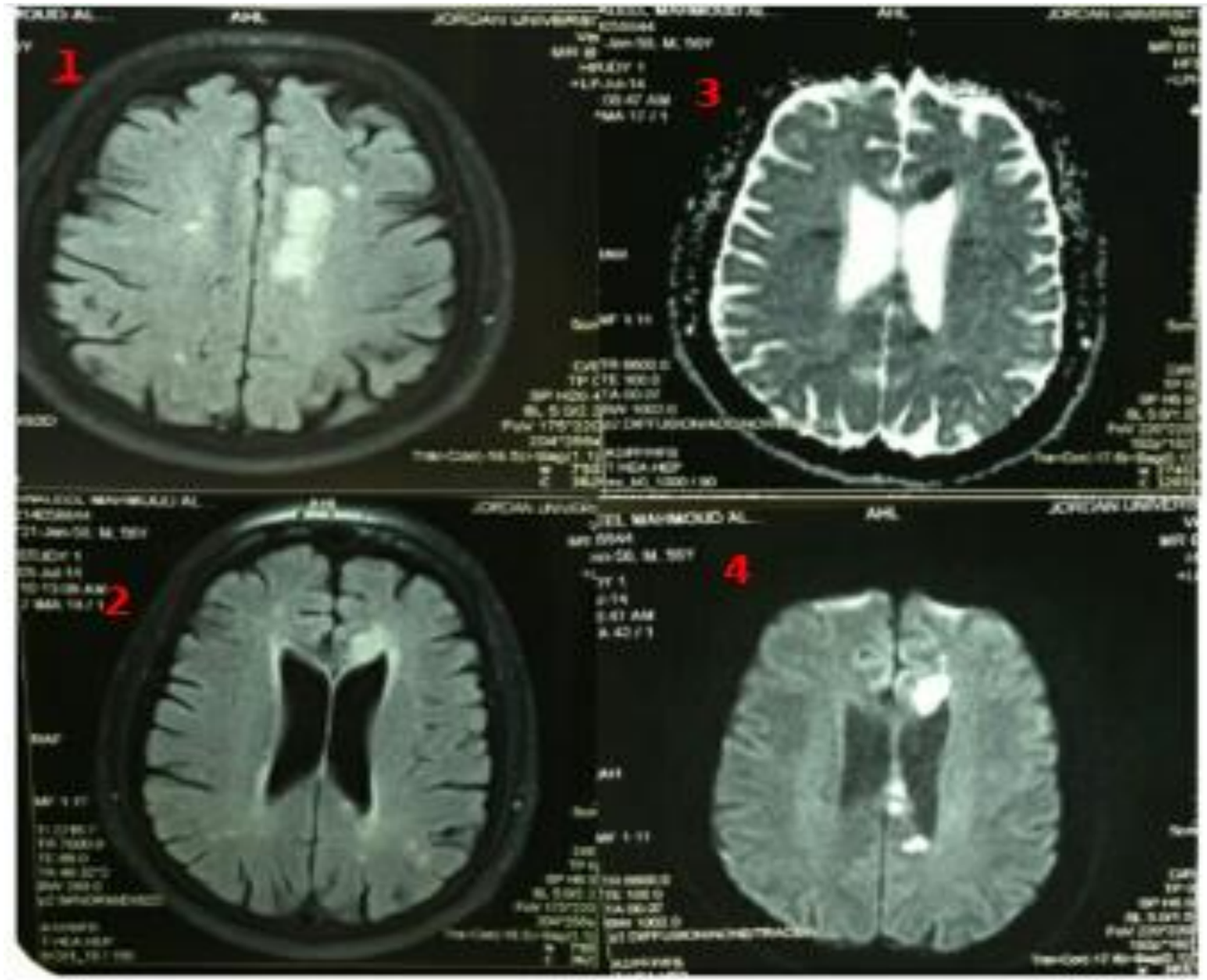
2- there is a hyperintense area also in the left ACA territory.

3- the same area looks Hypointense in ADC sequence.

4- the same area appears hyperintense in the DWI sequence.

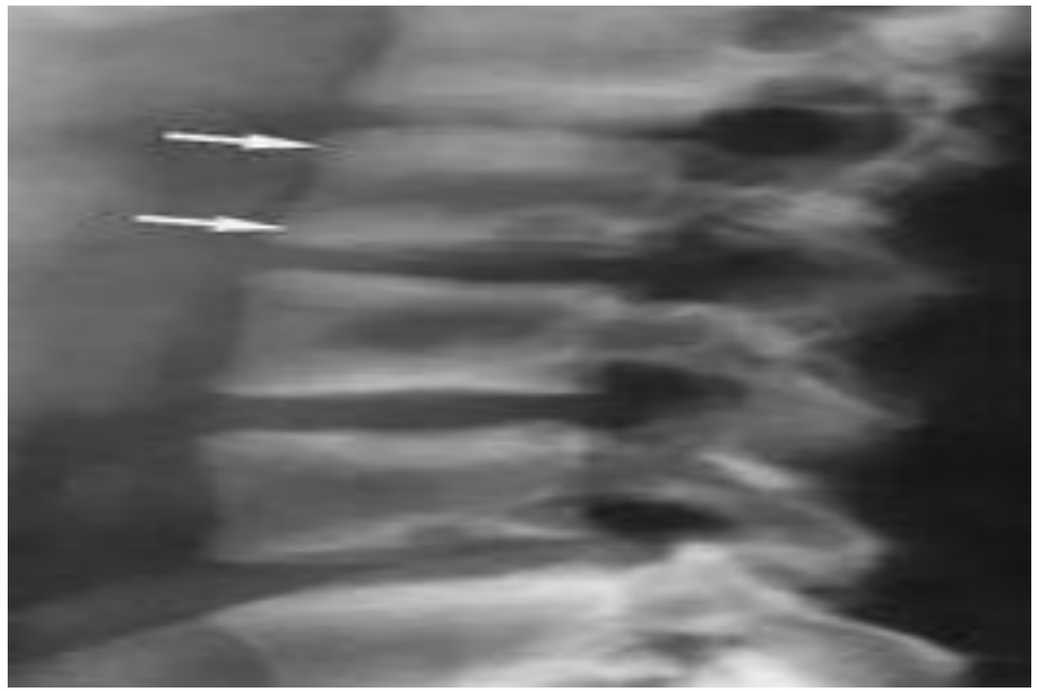
3-what is your most likely diagnosis?

RECENT infarction in the left Anterior cerebral artery .



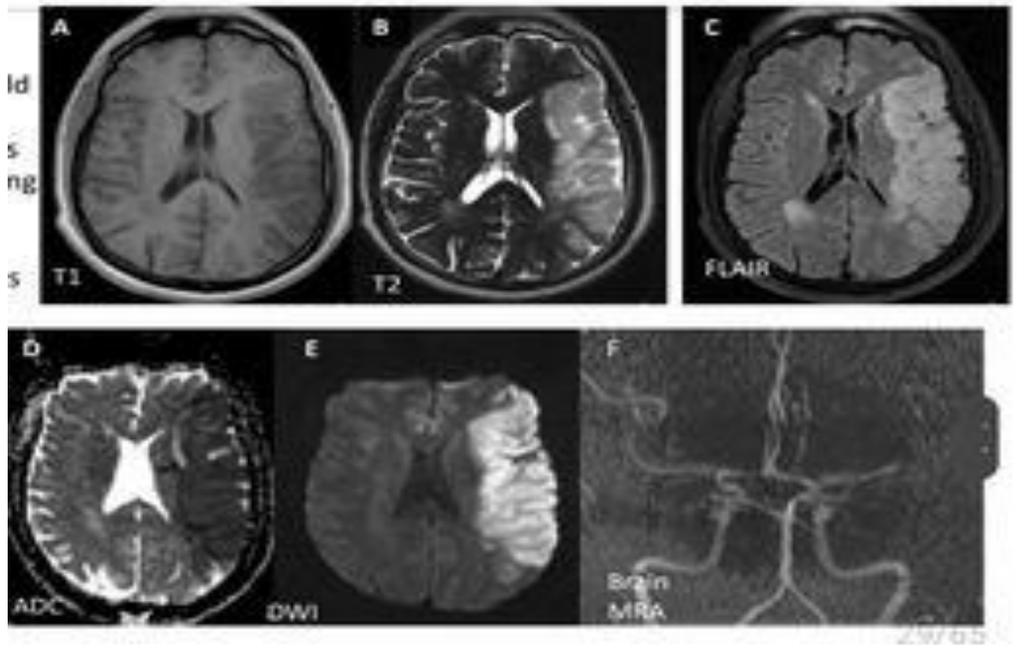
Q) Spondylitis can be also found in this Picture:

True



Q) This picture represents **Vasogenic edema**:

False

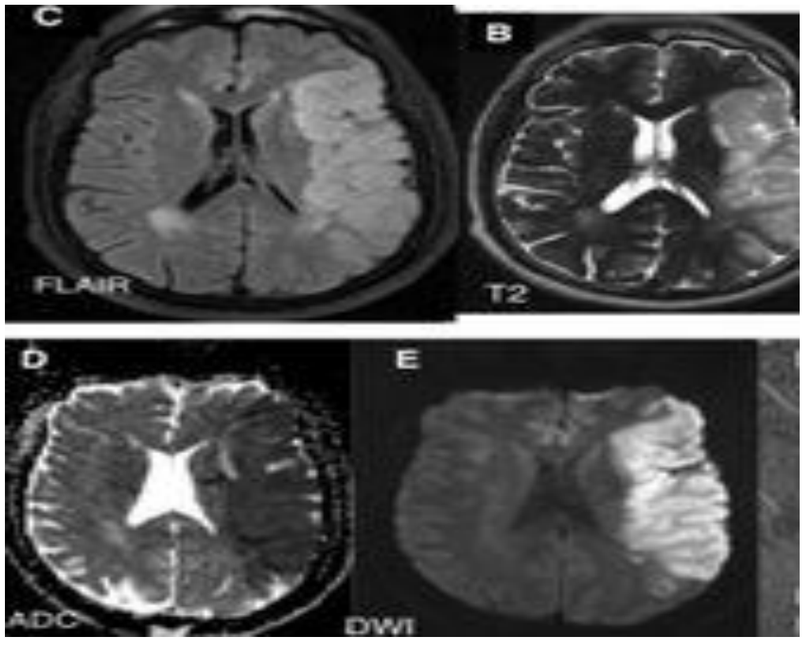


Q) Type of study, findings, diagnosis?

lumber spine MRI (T1, T2, STIR, sagittal views, T2 axial view) with disc herniation in l4-l5 segment on left side.

Q) MRI photos showing T2, FLAIR, ADC, DWI. Showing infarction (cytogenic edema) of the occipital aspect, similar to attached photo but not exact.

Diagnosis: Acute infarction of the PCA

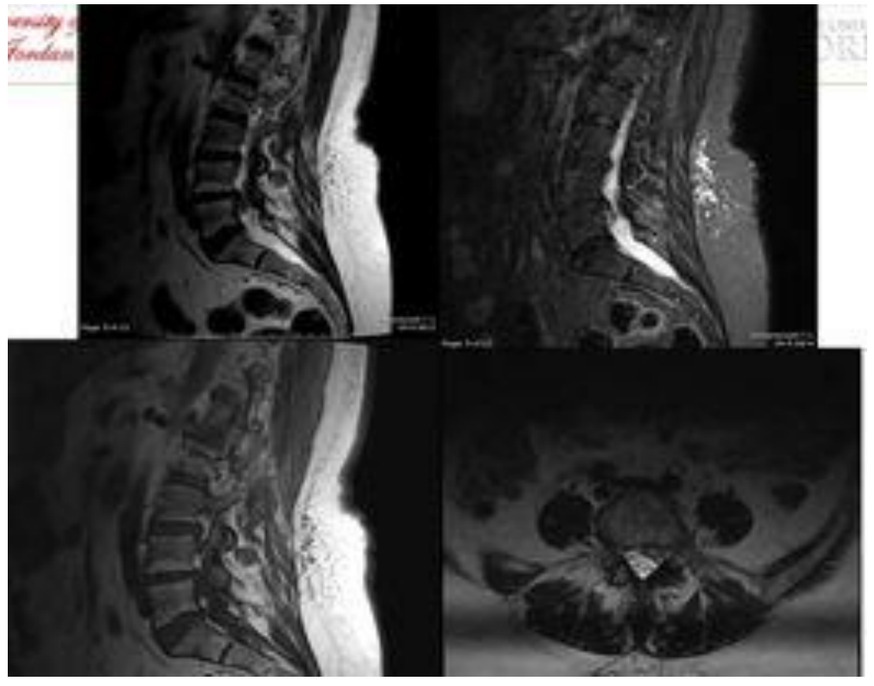


1- what is the name of the study, Plane & sequence?

T2/STIR/T1/T2axial

2- what is the most likely diagnosis?

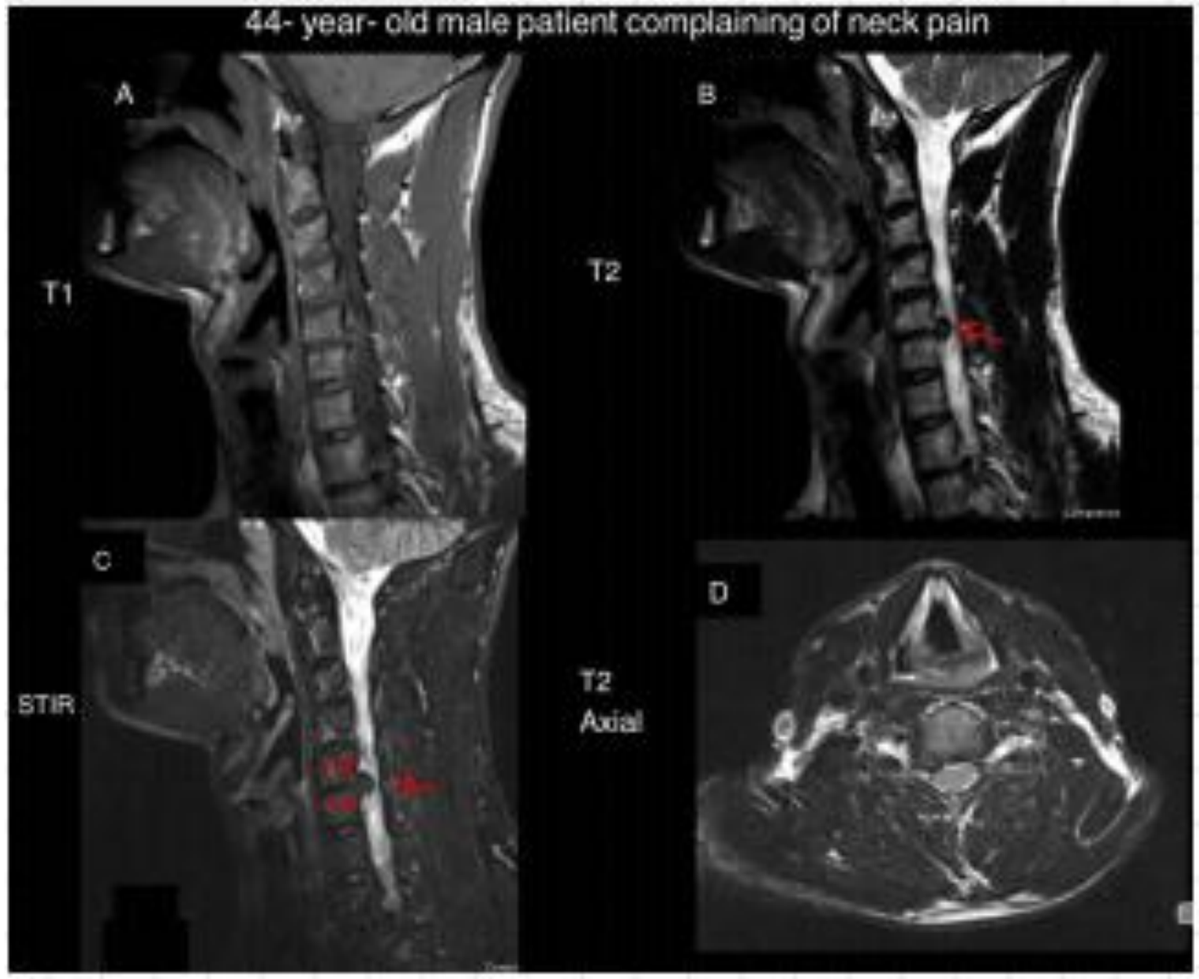
L3-L4 DISC herniation with cord compression



1- What is the name of the study, Plane & sequence?
(Sagittal T2, axial T2, sagittal T1, sagittal STIR)

2- What is the most likely diagnosis?

Disc herniation at c5-c6 compressing the spinal cord



THEORY

1) About MRI uses, which is the wrong match:

a. MRI FLAIR: calcification*

b.MRV: cavernous sinus thrombosis

c.MRI DWI: acute infarct

d.MRI T1 contrasted: intra-axial tumor

2) Which is wrong:

a.MRI as sensitive as CT for diagnosis of acute infarct*

b.DWI shows hyperintensity in acute infarction

c.Haemorrhage appear heterogenous hyperintense in T2

3) What is wrong:

a. Extra-axial tumors have wide meningeal attachment*

b. Failure to enhance on T1 contrasted imaging rule out intra-axial imaging

4) MRI:

[Ferromagnetic]

5) About MRI with contrast, all are wrong except:

a. contraindicated in renal failure grade 111*

b. contraindicated in the first trimester if contrasted

c. Not contraindicated in 2nd and 3rd trimester

d. contraindicated in children

6) All advantages of MRI over CT except:

a. Detection of infraorbital metallic foreign body

7) Regarding MRI, one is wrong:

a. Indicated to make sure about position of pacemaker

MAMMOGRAPHY

1) What is the name of this study?

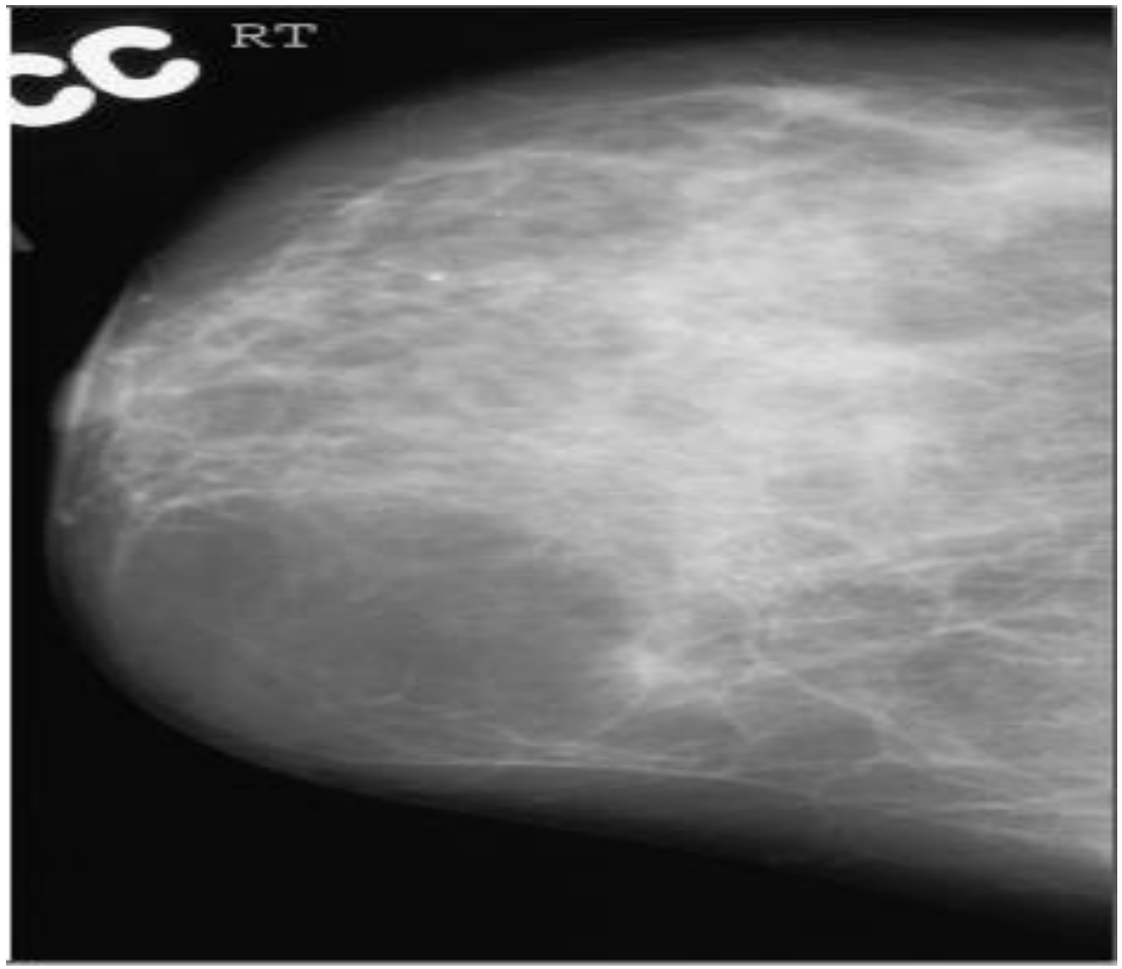
Mammogram of the Right breast, craniocaudal view.

2) Mention radiological Findings?

There is a mass in the inner part of the right breast, oval in shape, with well-defined borders, and it's hypodense in density.
No calcifications, No secondary signs of malignancy.

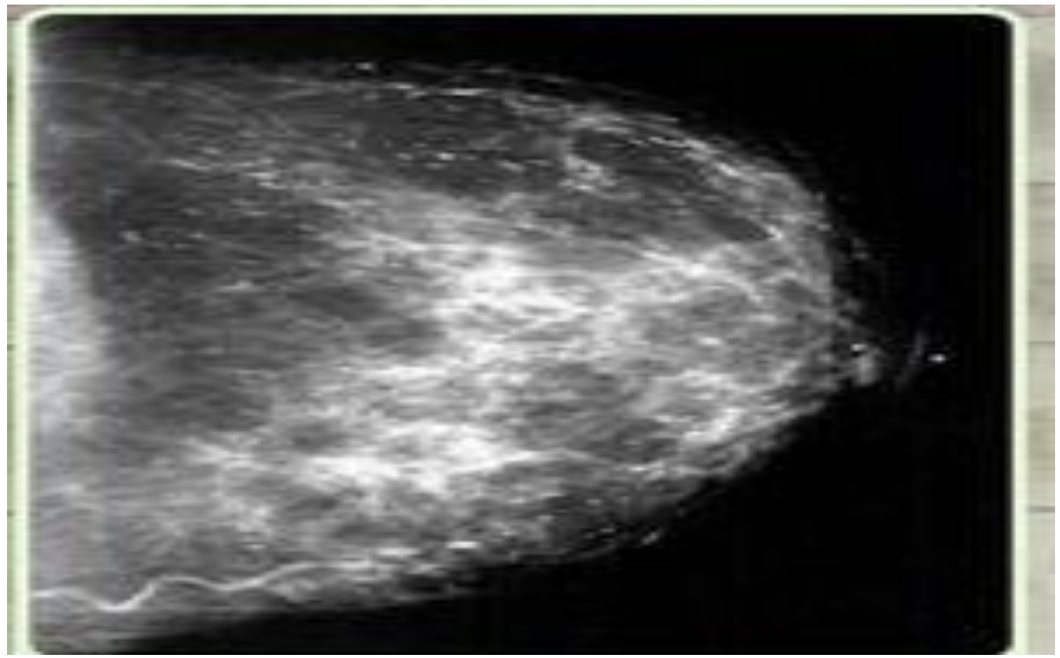
3) What is the most likely diagnosis?

Lipoma.



Q) We should take BIOPSY:

TRUE

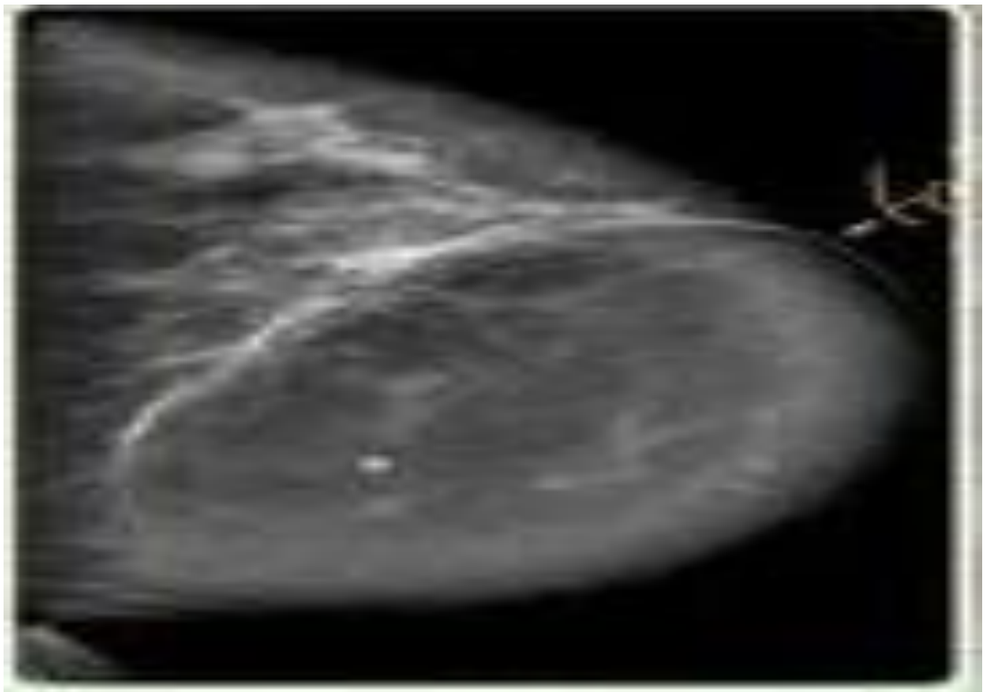


Q) This picture represents Bird 4:

False

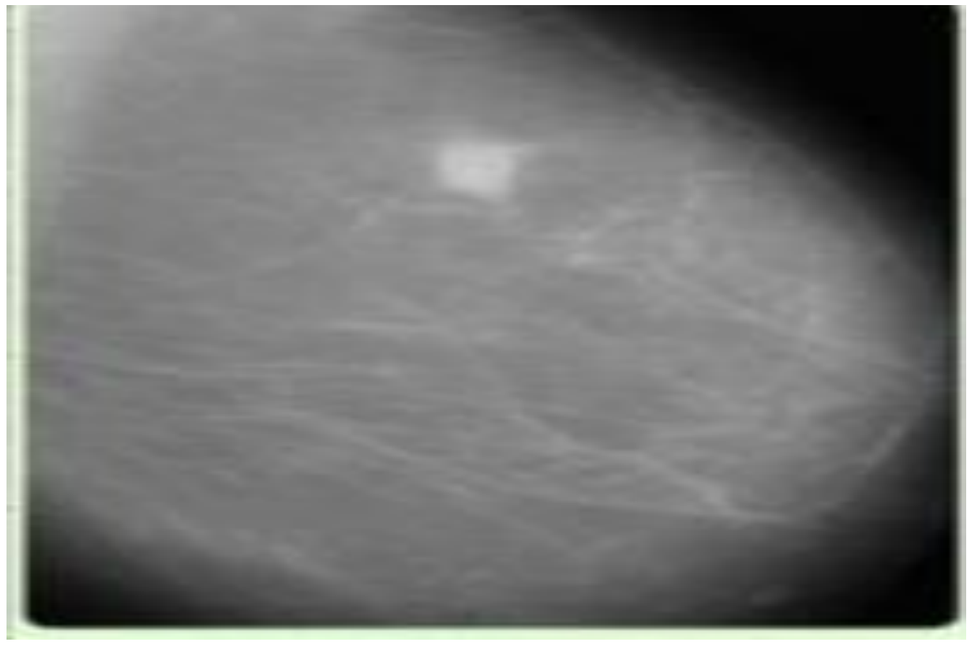
Q) This picture represents **inner round hypodense**?

True



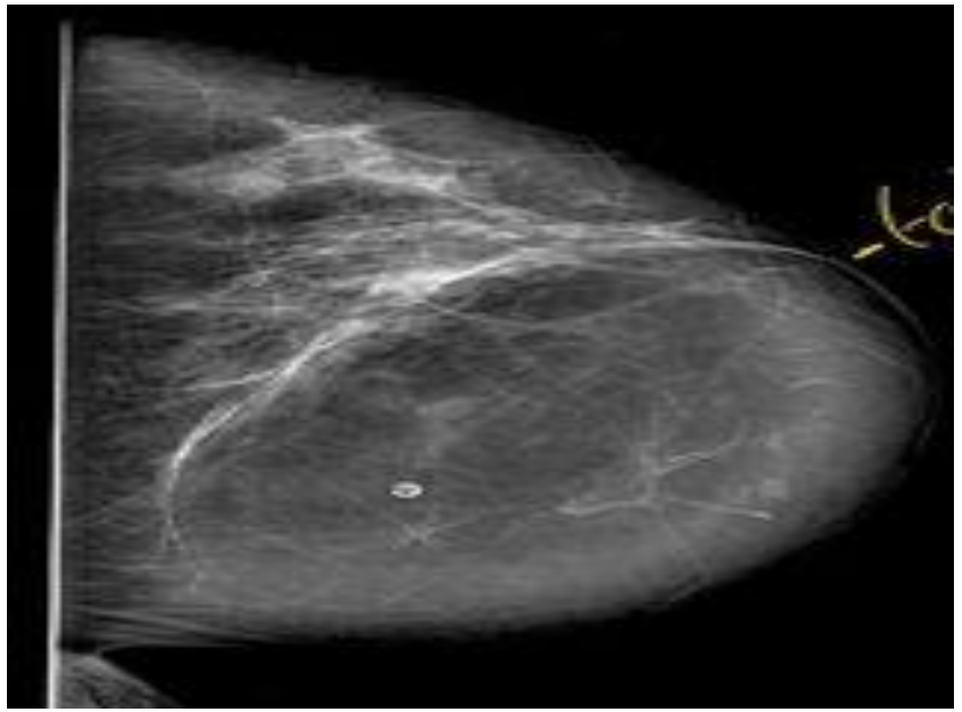
Q) This picture represents **Speculated Breast Masses?**

True



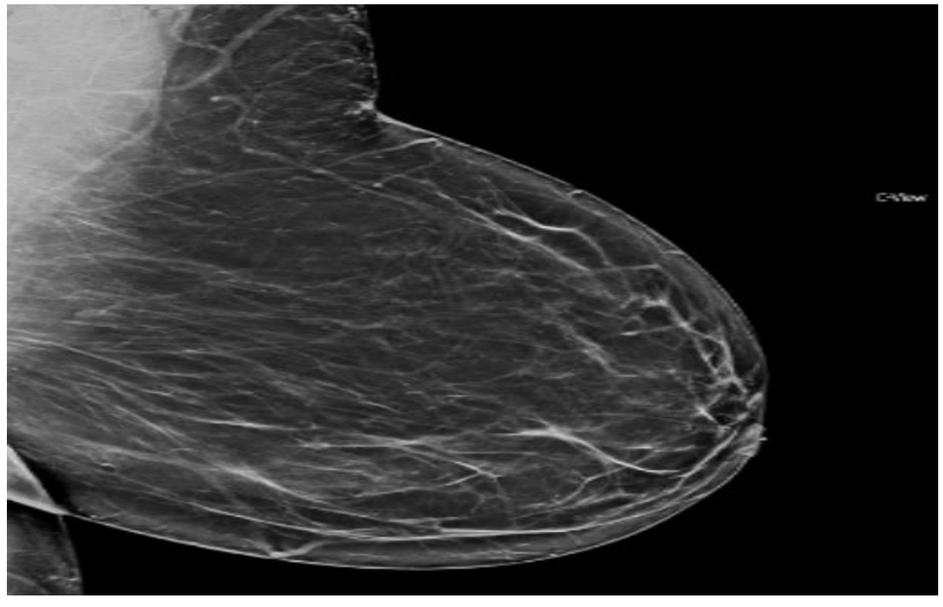
Q) This picture represents Lipoma?

True



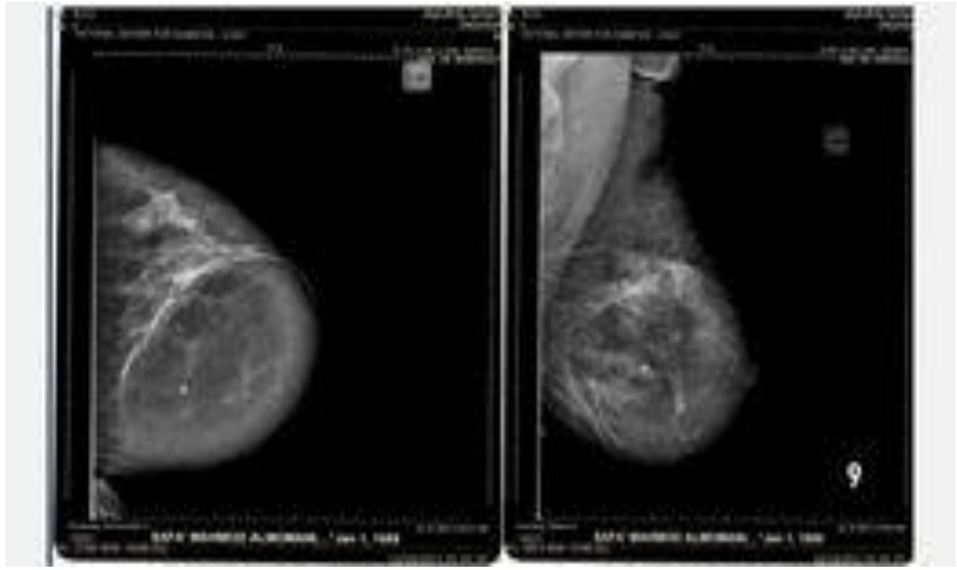
Q) This picture represents **Negative, BIRADs 1?**

True



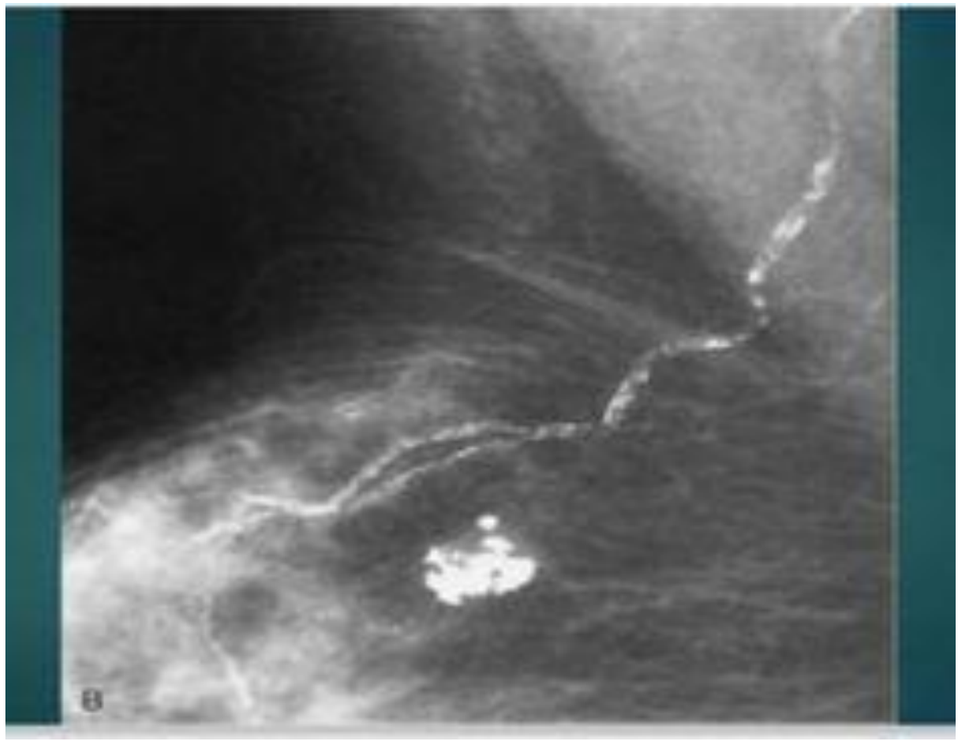
Q) This picture represents **fibroadenoma?**

False



Q) This picture represents **BIRAD 2?**

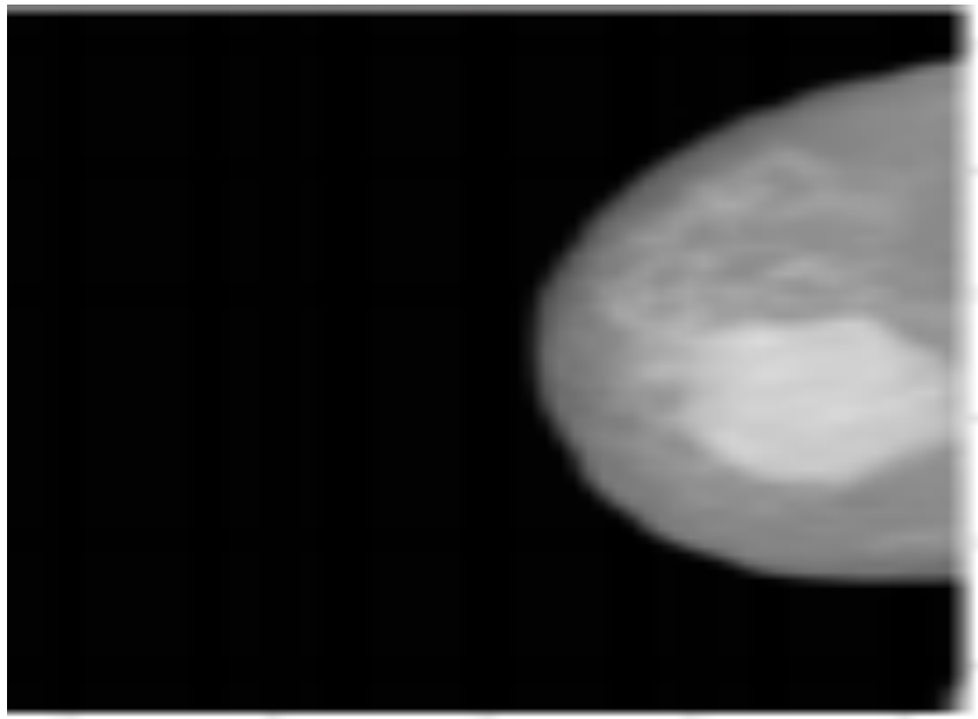
True



Q) Type of study, findings, diagnosis?

Mammogram cc view showing speculated round hyperdense mass in the inner part.

DX: mostly malignant



1. The name of this imaging?

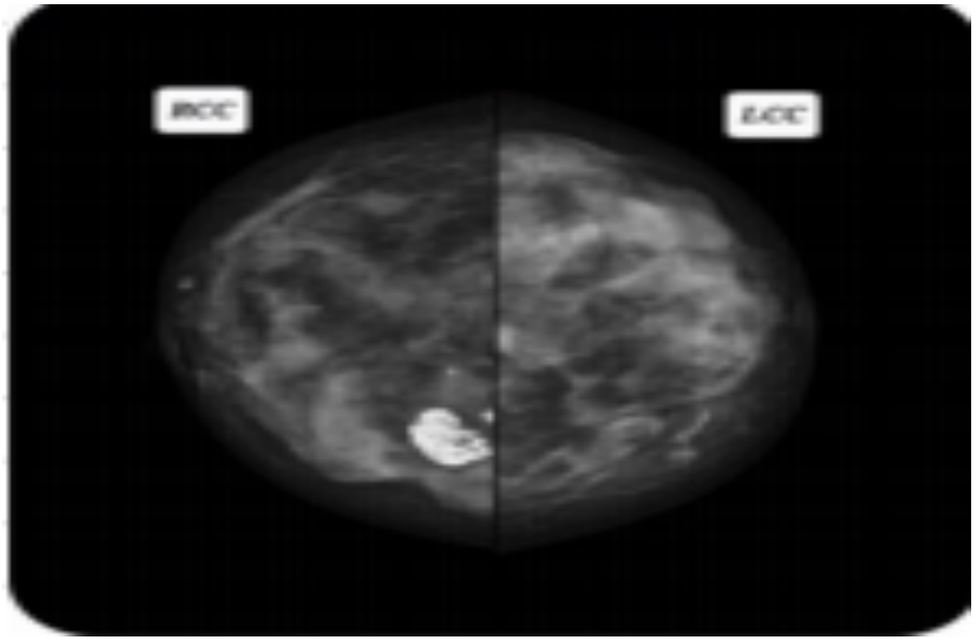
Cranio-caudal mammogram showing the two breasts.

2. Radiological findings?

A mass in the inner half of the right breast that is: round, with well-defined margins, hyper-dense, with popcorn calcifications within the mass.

3. Diagnosis?

Involuting fibroadenoma in the right breast.



1. The name of this imaging?

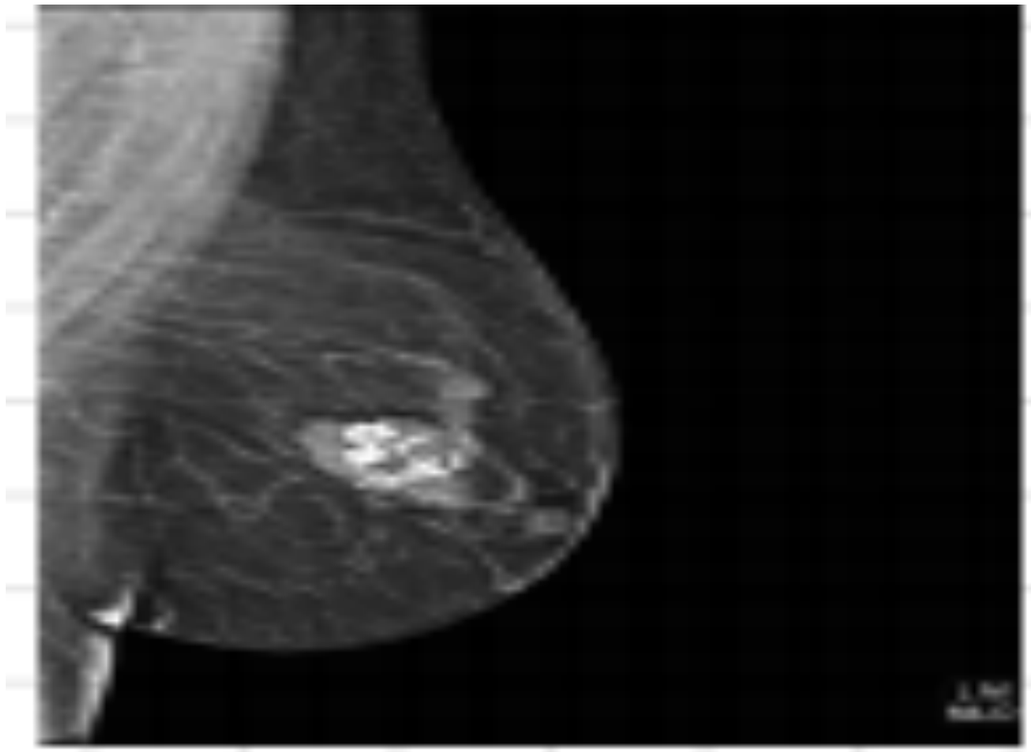
mammogram, MLO view of left breast

2-Describe findings?

oval, well circumscribed, isodose lesion in the lower left breast with coarse calcification (popcorn like)

3. Diagnosis?

involuting fibroadenoma



THEORY

1) a women diagnosed with invasive ductal carcinoma, did mammogram after treatment, revealed a round well-defined mass, what is the BIRADS:

a- 2

b- 3

c- 4

d- 5

e- 6*

2) Woman with history of trauma to breast, few weeks later she came to clinic, what you suspect on mammogram?

- Egg-shell appearance

3) Well defined breast lesion, coarse calcification >> benign description. What is BIRAD score?

-BIRADS 2

4) Calcified ring in mammogram:

A} Cyst

B} Fat necrosis

C) Fibroadenoma

5) not a cause of round lesion on mammogram =

-Carcinoma

6) All are against malignancy except:

a. History of extramammary malignancy*

b. fat containing

c. multiple

d. Totallucency

e. halo

7) 26y/o lady presented with suspected breast mass the best imaging

a- Mammogram

b- U/S

8) All good modalities for detection of breast lesions except:

a- MRI.

b- US

c- CT

INTERVENTIONAL RADIOLOGY

1- What is the study?

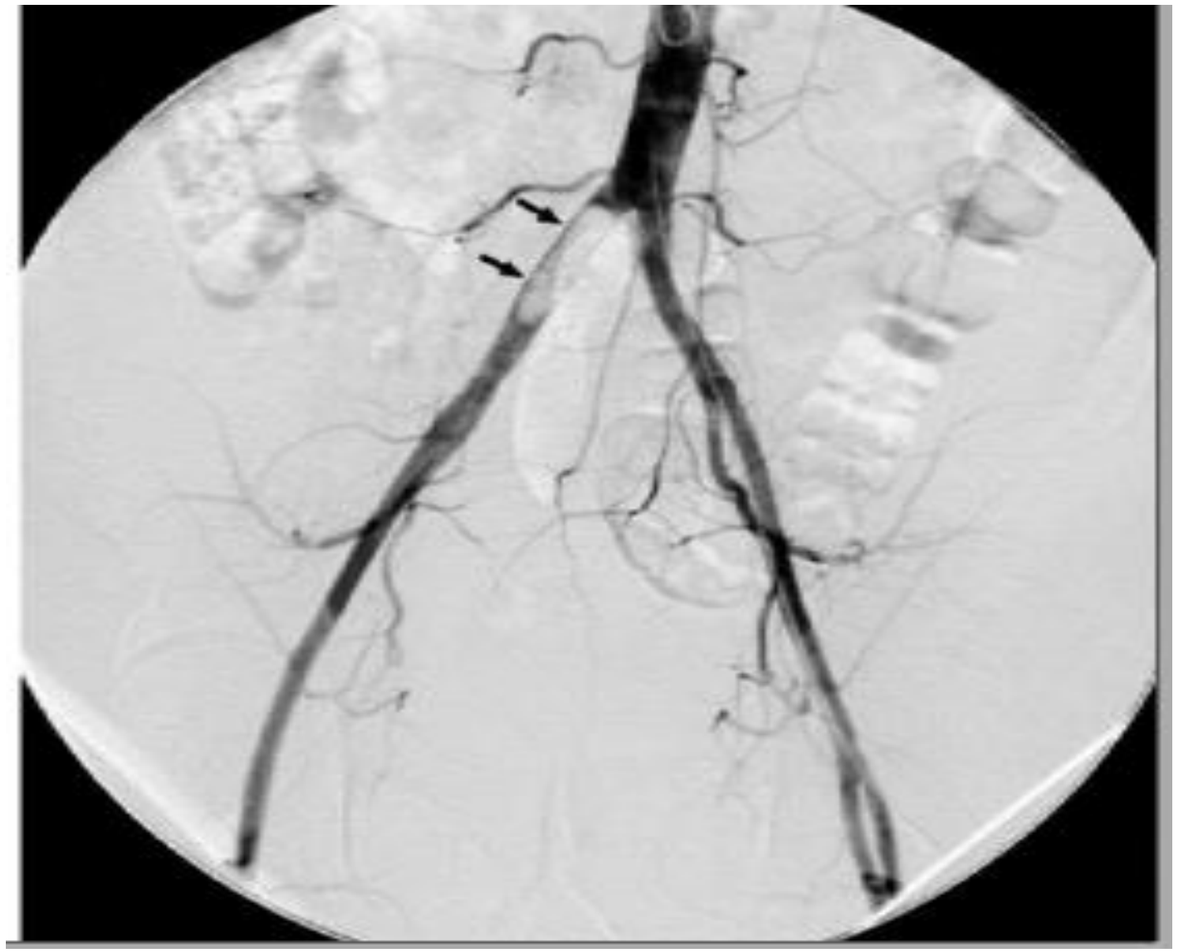
Arteriography of the distal abdominal aorta and the common iliac arteries, DSA study.

2- Mention radiological Findings?

There is a Fling defect in the right common iliac artery. No collaterals.

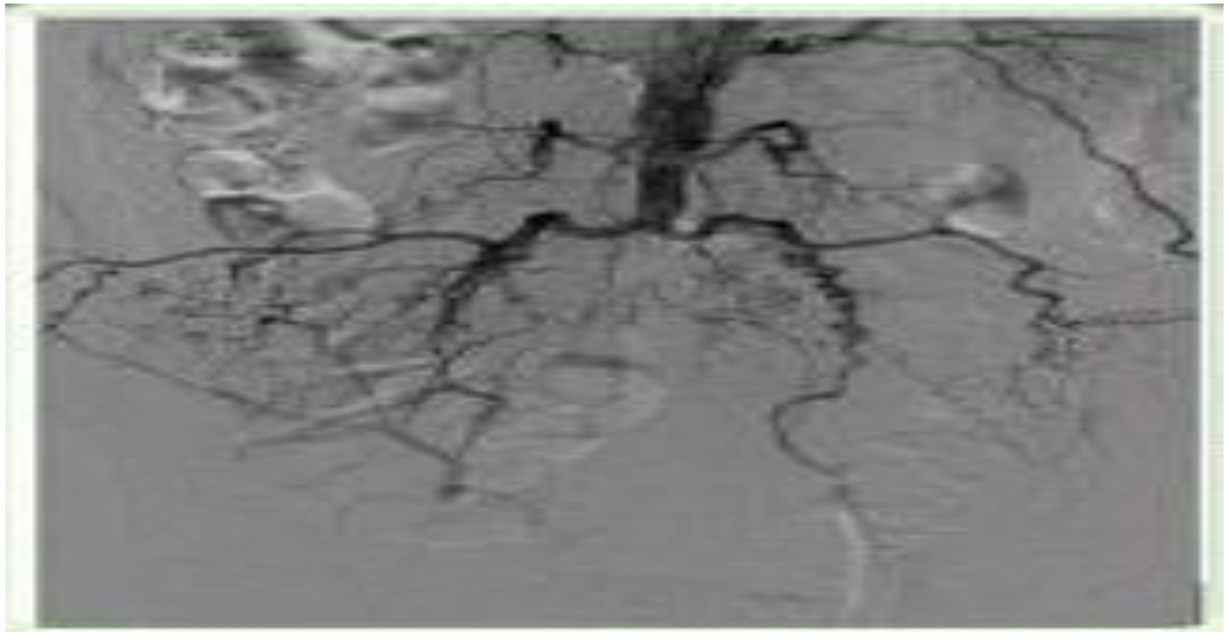
3- What is the most likely diagnosis?

Acute right common iliac artery embolus



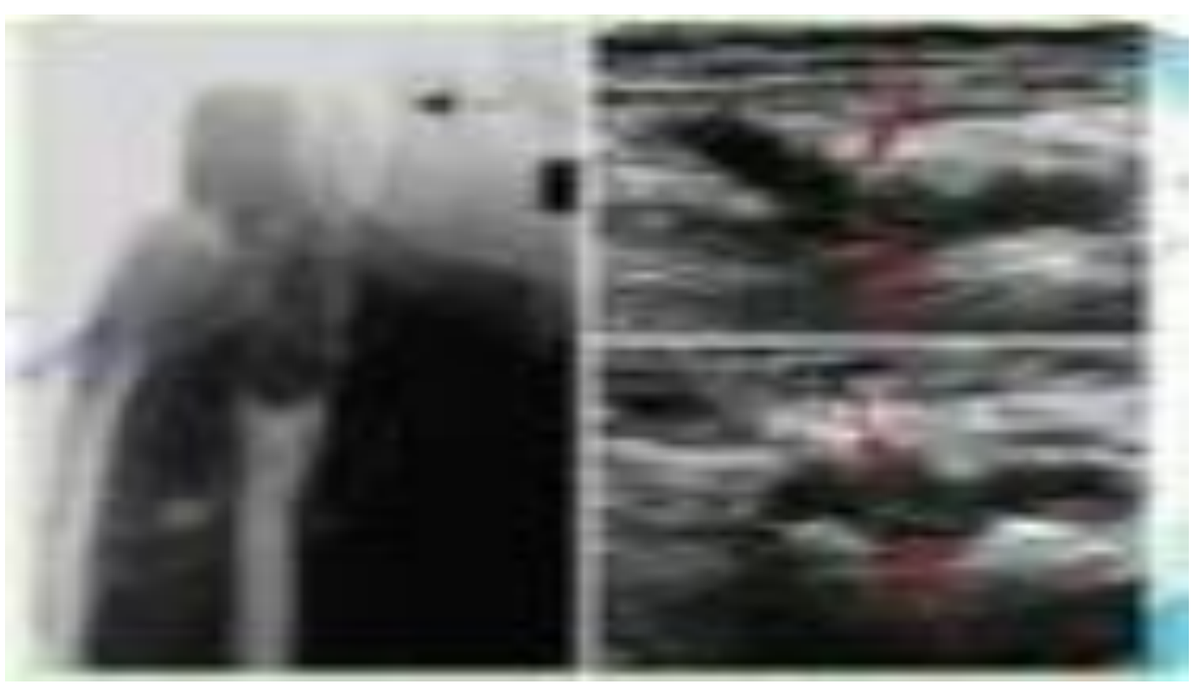
Q)There is No Collateral in this picture:

FALSE

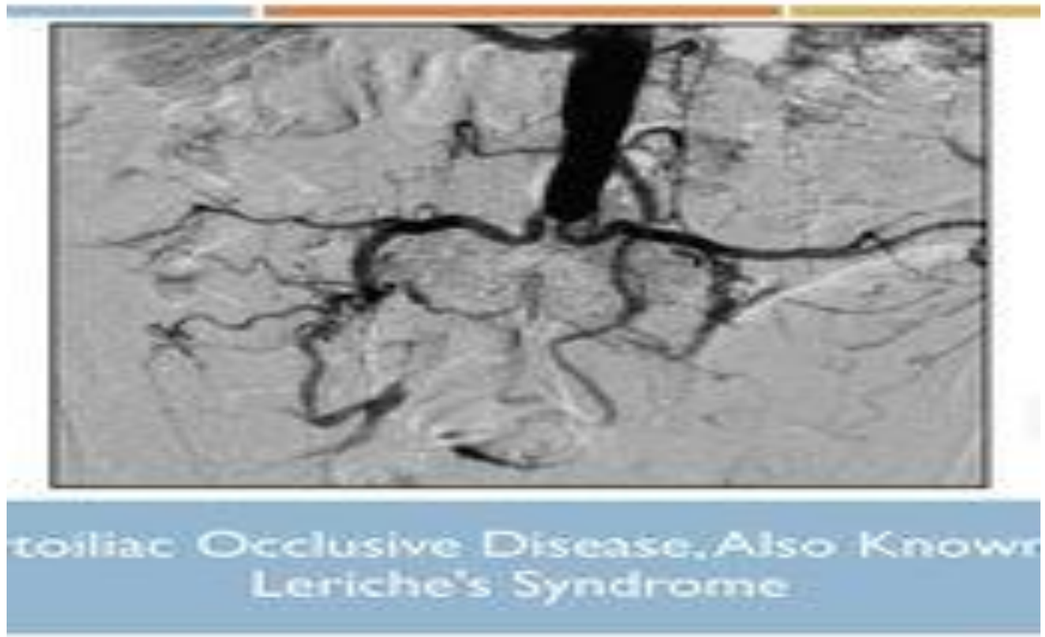


Q) The sign of DVT is dilated vein and compressible:

False



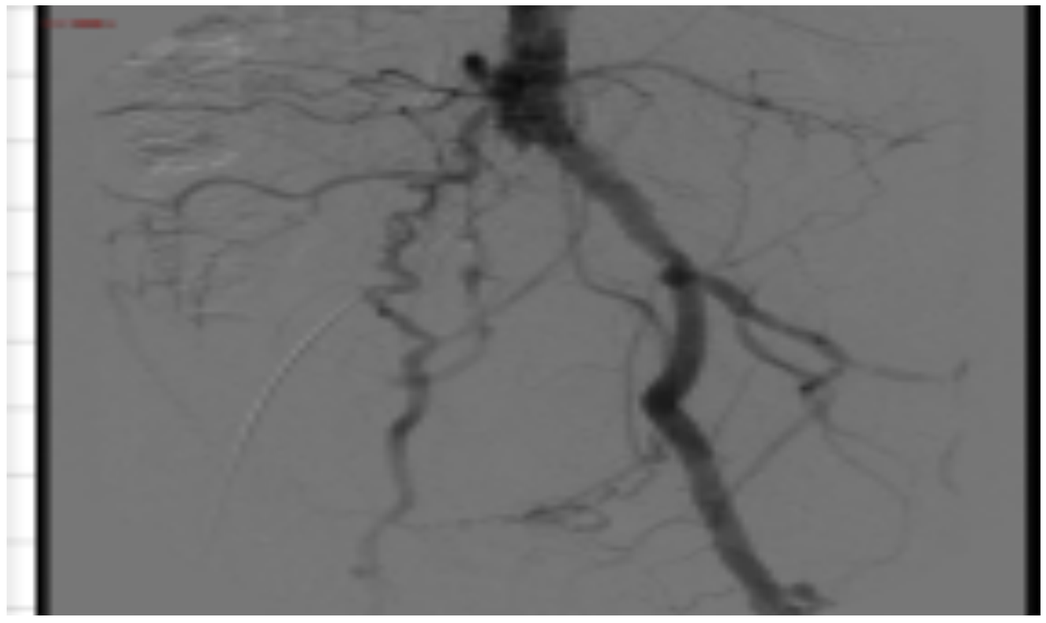
You Should Memorize this picture 😊



Q) Type of study, findings, diagnosis?

DSA arteriography of abdominal aorta and its branches showing complete occlusion of the left iliac artery with collaterals.

DX: Chronic complete occlusion of the left CIA



1) what's the name of this imagining?

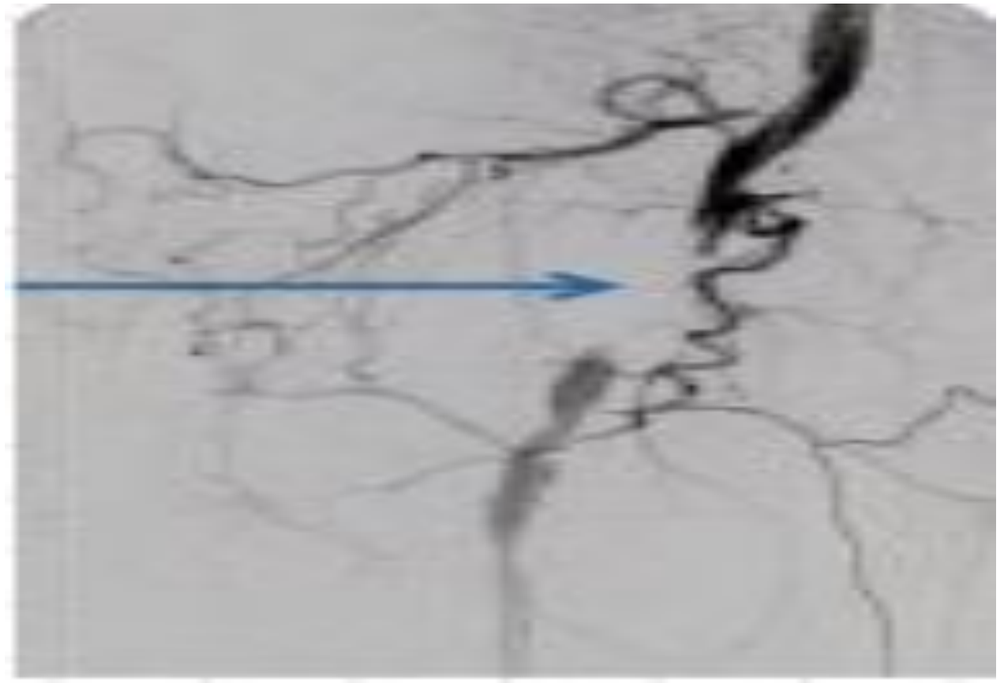
DSA showing the course of the superficial femoral artery

2) Radiological findings?

Complete occlusion of the superficial femoral artery with evidence of collaterals &distal faint opacification.

3) Diagnosis?

Chronic occlusion of the superficial femoral artery.



1) What's the name of this imagining?

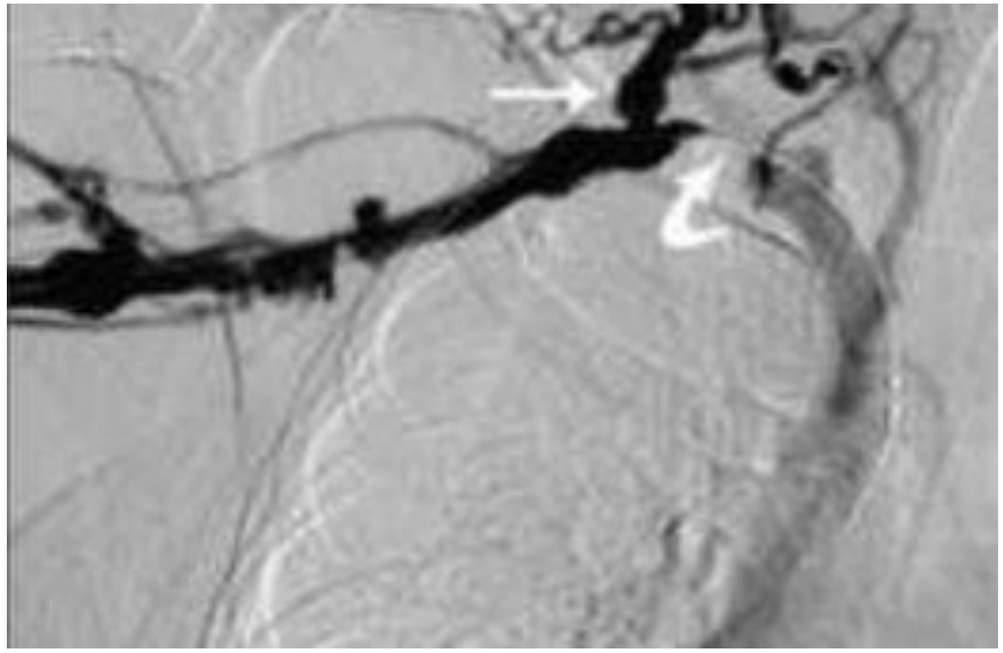
Digital subtraction venogram showing rt axillary-chest area

2) Radiological findings?

Complete occlusion of subclavian vein with distal faint opacity and tortuous collaterals

3) Diagnosis?

Chronic complete occlusion of the subclavian vein (DVT)



THEORY

1) All are indications for myocardial scintigraphy except:

a. A patient with typical chest pain and a negative stress ECG

b. A patient with symptomatic CAD and diabetes

c. A patient showed 80% stenosis of LAD on Cath angiography*

2) All are indications for IVC filter except:

a. all trauma patients prophylactically*

b. Contraindication for anticoagulant

c. VTE while on anticoagulant

d. Bleeding while on anticoagulant

3) Wrong about angiography:

a. AP diameter of more than >3cm in abdominal aorta is considered an aneurysm

b. Intimal flap is a sign of dissection

c. Wall irregularity is a sign of dissection *

4) coronary flow reserve following exercise

5) Wrong about femoral catheterization:

a. Femoral artery is medial to femur*

blow complication

c.Easilyaccessible

6) IVC filter wrong:

Position is supra renal*

7) wrong about angioplasty prognosis:

a. Better in larger vessels

better in distal vessels **

better in stenosis than occlusion

8) Endothelial repair which is wrong:

a. Generalized Anesthesia in all patients"

decreased hospital stay

9) Ail are true regarding arterial occlusive diseases except:

a. Thrombi have meniscal edge*

b. 90 % due to atherosclerosis

c. Embolic mostly cardiac in origin

d. Embolism stick at bifurcation

e. thrombotic are less dangerous than embolic

10) Best site to place for puncture in angiography for visualizing brain circulation.

a. Directly in carotid

b. Axillary artery

c. Femoral artery*

d. Brachial artery

e. Radial artery

11) All are indications to do an arteriogram except:

a. VTE*

b. blood vessel disease

c. arterial supply of tumor

d. define anatomy before surgery

e. detects source of GI bleeding

12) IVC filter is indicated in all except:

a. all trauma patients prophylactically*

b. patients contraindicated to be put on anticoagulants

c. patients who bleed while on coagulation

d. Failure of anticoagulant ttt

e. presence of clot with the use of anticoagulant

MUSCULOSKELETAL SYSTEM

1- what is the study?

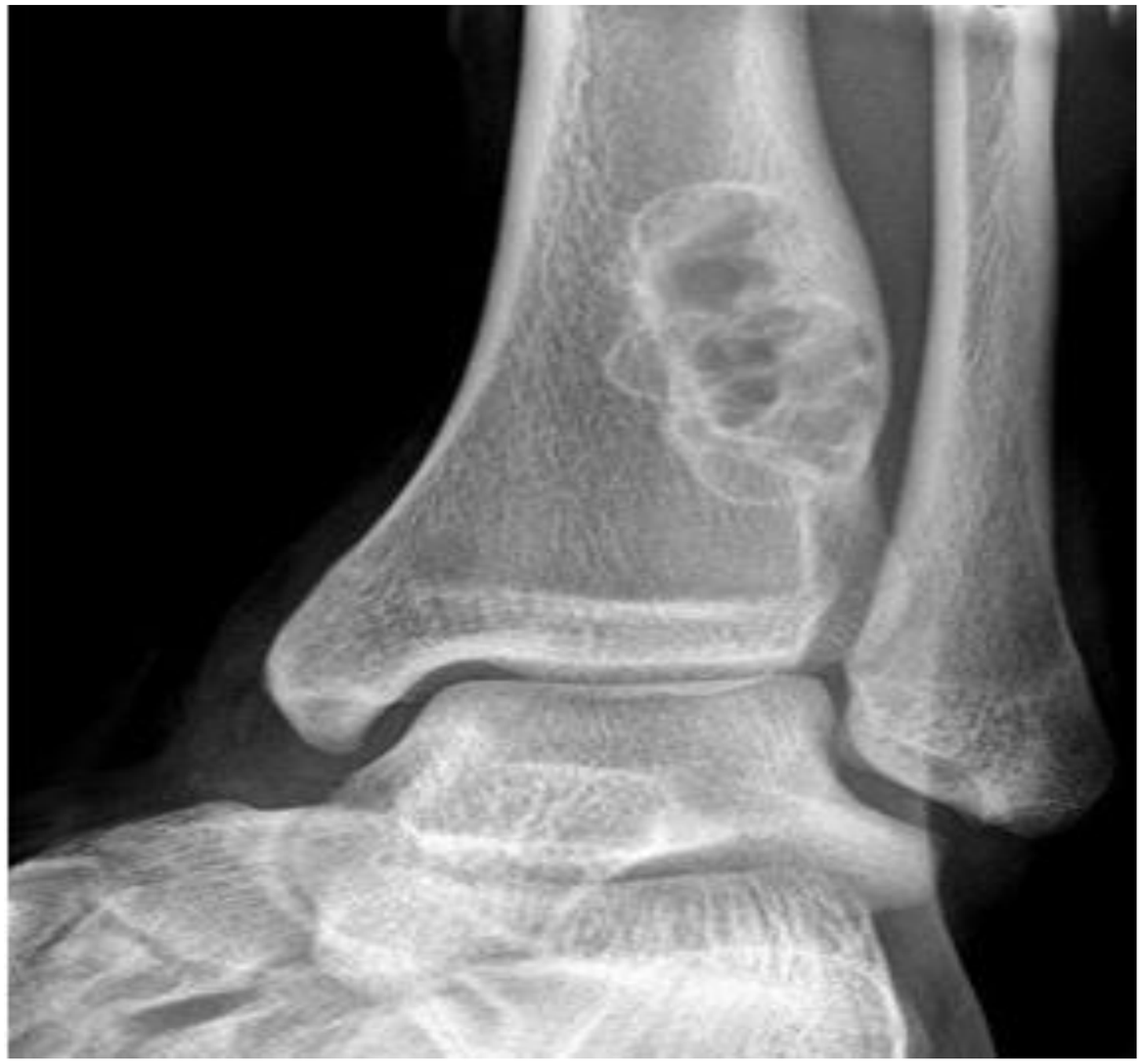
X-ray of the distal leg and ankle joint, PA view.

2- Mention radiological Findings ?

There is a radiolucent lesion in the lateral side of the distal tibia, with well-defined borders, narrow transitional zone, with a lytic background and no sclerotic rim, there is Inter septation Inside the lesion, there is no periosteal reaction , no soft tissue extension.

3-What is the most likely diagnosis?

Non- ossifying Fibroma, benign lesion.



1- What is the study?

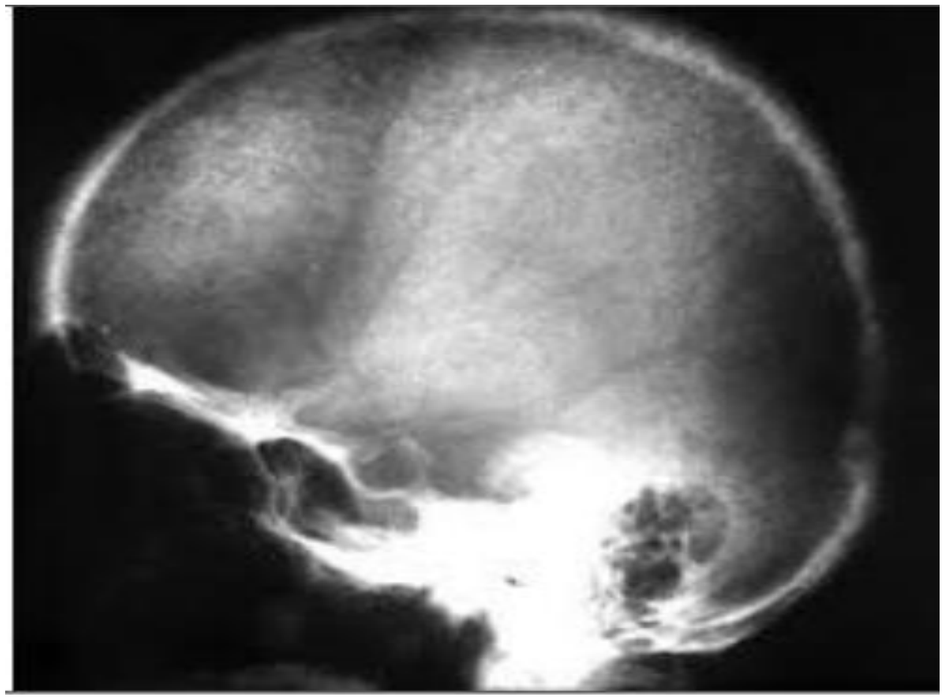
X-ray of the skull, lateral view.

2- Mention radiological Findings?

There is di<use radiolucent areas in the skull, indicating extensive bone resorption (salt and pepper appearance).

3- What is the most likely diagnosis?

Hyperparathyroidism

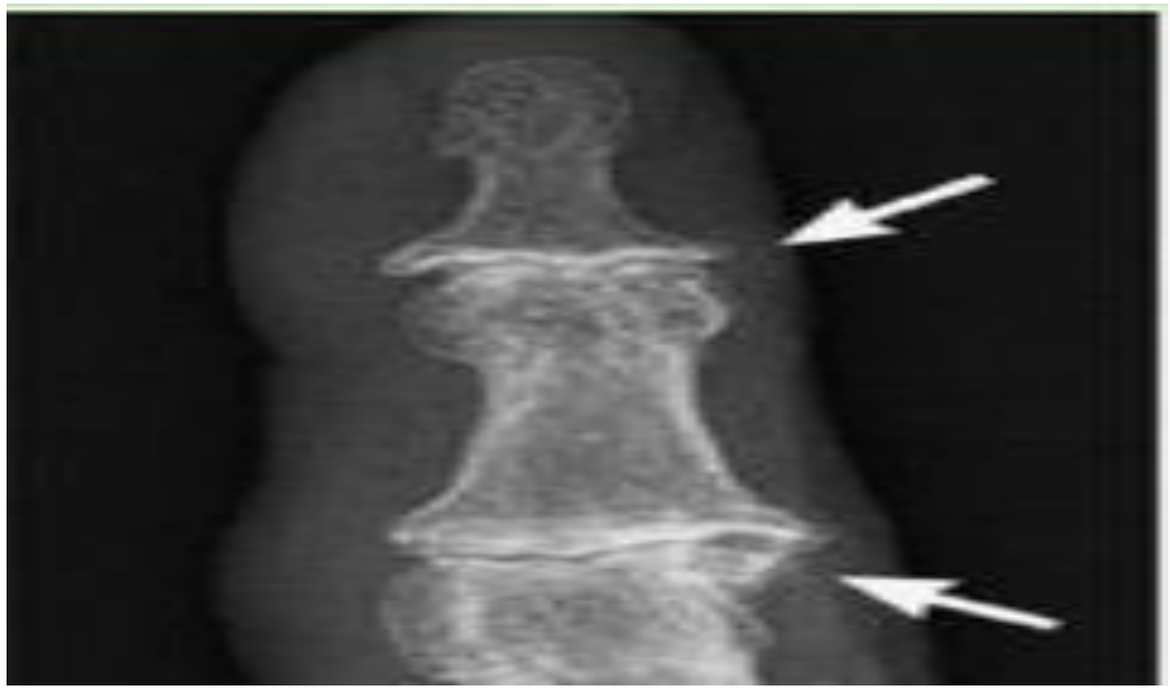


Q) This picture shows sign of **ankylosing spondylitis**?

True

Q) This picture shows Signs of **inflammatory disease**?

False



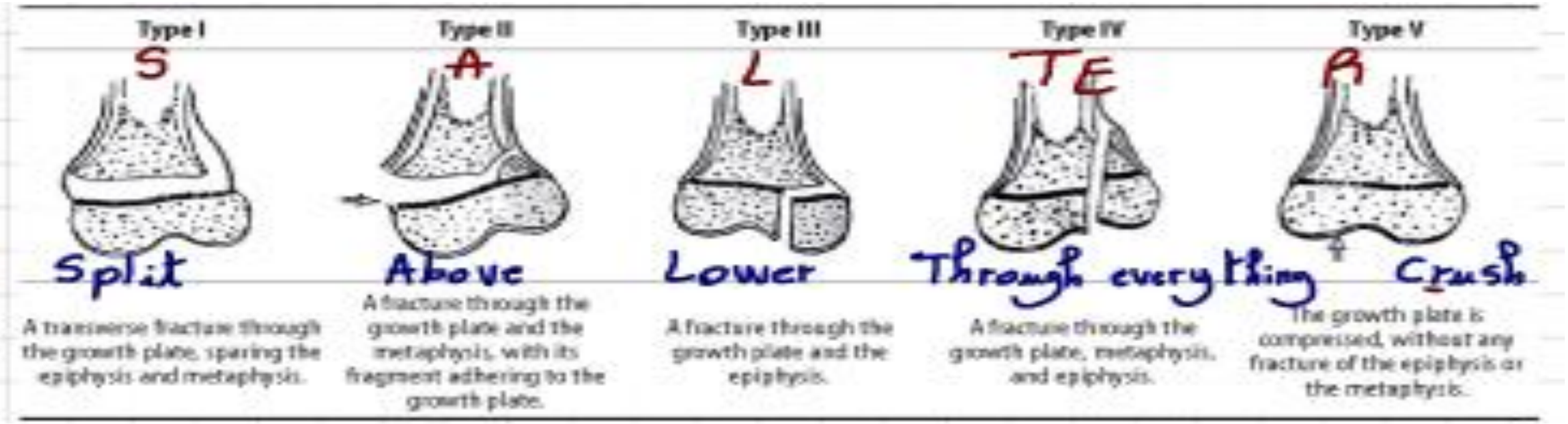
Q) This is the pathological fracture due to cancer:

True

Q) Is there any Shoulder dislocation:

False

You Should Memorize this picture😊



Q) This picture represents knee x ray with pseudogout?

True

Q) This picture shows a **degenerative arthritis disease?**

True

Q) The Following CT scan shows a benign painful lesion thar responds to NSAID?

TRUE

Q) This pelvic x ray shows bilateral sacroiliitis?

False

Q) This bone lesion presented with malignant characteristics?

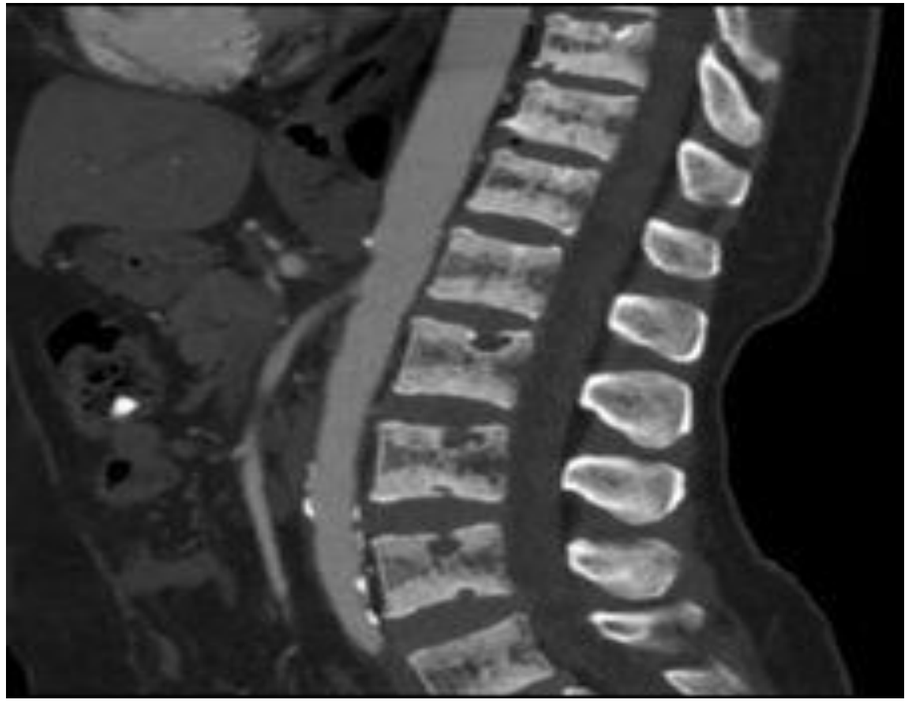
True

Q) This picture shows BOXER FRACTURE?

TRUE

Q) This is spine CT represent hyperparathyroidism:

True



Q) This is tarsometatarsal fracture with dislocation?

True

Q) This picture shows NOF, this is likely a benign finding?

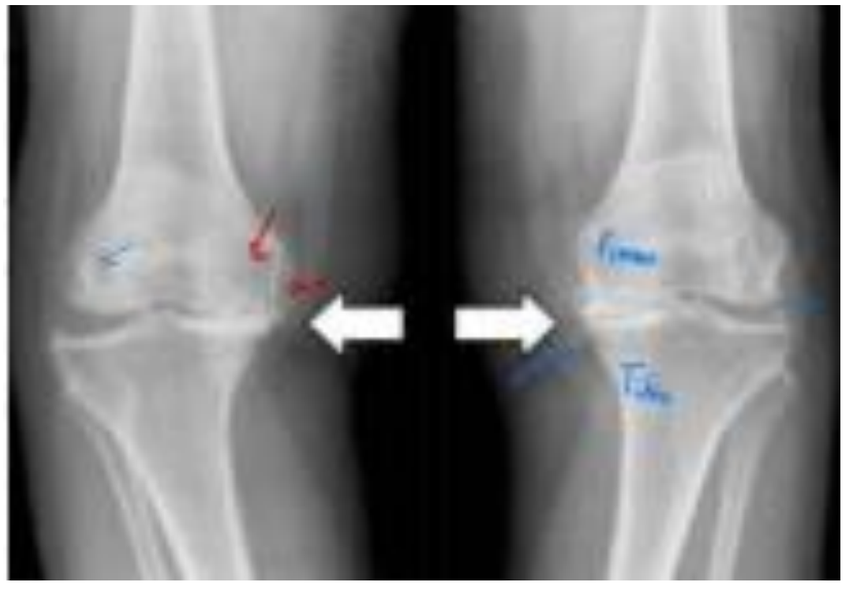
True

Q) This is a pathological proximal femur fracture without dislocation?

True

Q) Picture of a knee joint with OA, this patient will probably test positive for RF?

False



Q) This image indicates an infection rather than neoplasm?

[Not sure] true

Q) These changes are typically founded in gout?

False

Q) This patient has DDH?

True

Q) There is hyperlucency in the head of humerus?

True

THEORY

1) Wrong About seronegative arthritis imaging:

a. Trolley track sign is due to ossification of the posterior interspinous ligament*

b. Sclerosis of the vertebral corner is an early sign

2) All are radiological signs of malignant bone disease except:

a. Wide sclerotic rim*

b. Endosteal cortical reaction

c. soft tissue extension

d. Wide transition zone

e. Periosteal reaction

3) inflammatory arthritis, which is wrong:

A} Erosions

B} Weight bearing joints

C) Uniform joint space narrowing

4) Ewing sarcoma, which is wrong:

a. Lesion is permeative destructive

b. Periosteal reaction

C.endocortical reaction

d.Easily differentiated from acute osteomyelitis by X-ray*

5) True about GOUT:

a. Punched out erosions*

b. Early joint narrowing

6) Not in seronegative osteoarthritis:

a. Distal pattern

b. non Erosive*

c. uniform joint space loss

d. osteopenia

e. proliferation

7) Not found in ankylosing spondylitis:

a. Bamboo spine

b. Shiny corner sign

c. Rugger Jersey*

d. Dagger sign

e. trolley track sign

8) sclerotic rim found in all except:

a- chronic sinus

b- brown tumor?

9) A patient came with urea 10 XNL, all are initial workup except:

a- US

b- IVP

c- Plain abdomen

d- Hand radiography

NUCLEAR

1-In ventilation we can use TC-MAA:

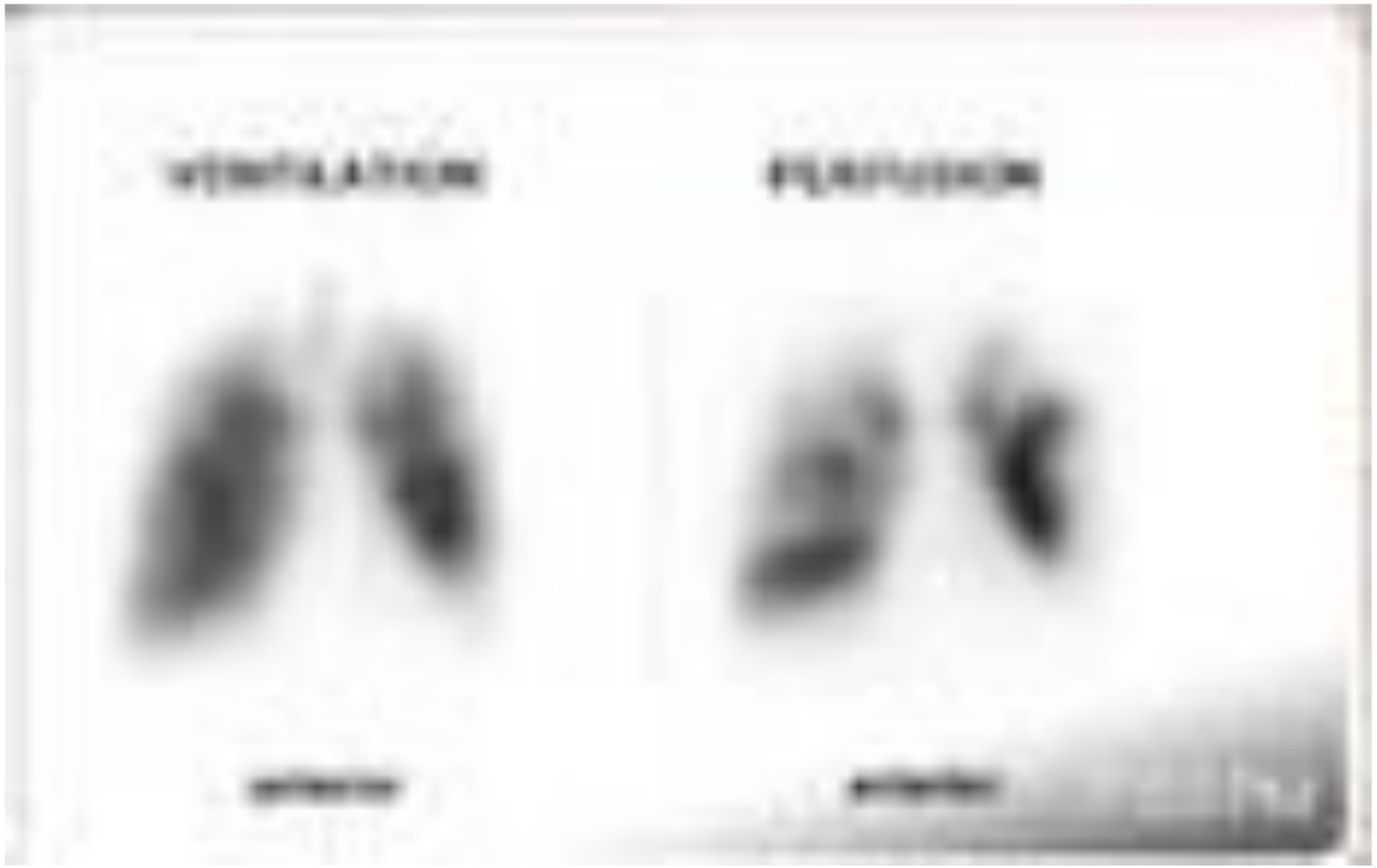
FALSE

2-TC 99 produced from Mg99:

FALSE

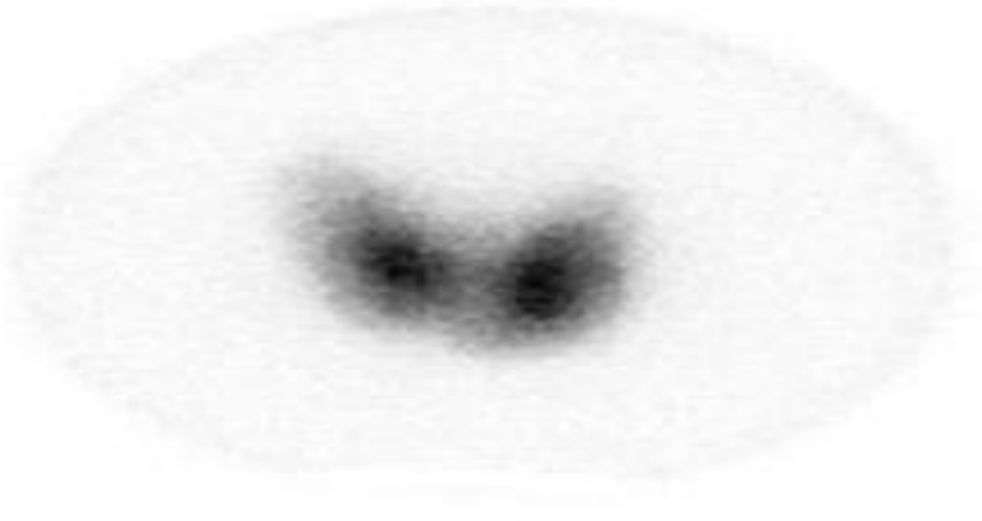
3-Half-life of Tc99 is 8 hours:

FALSE



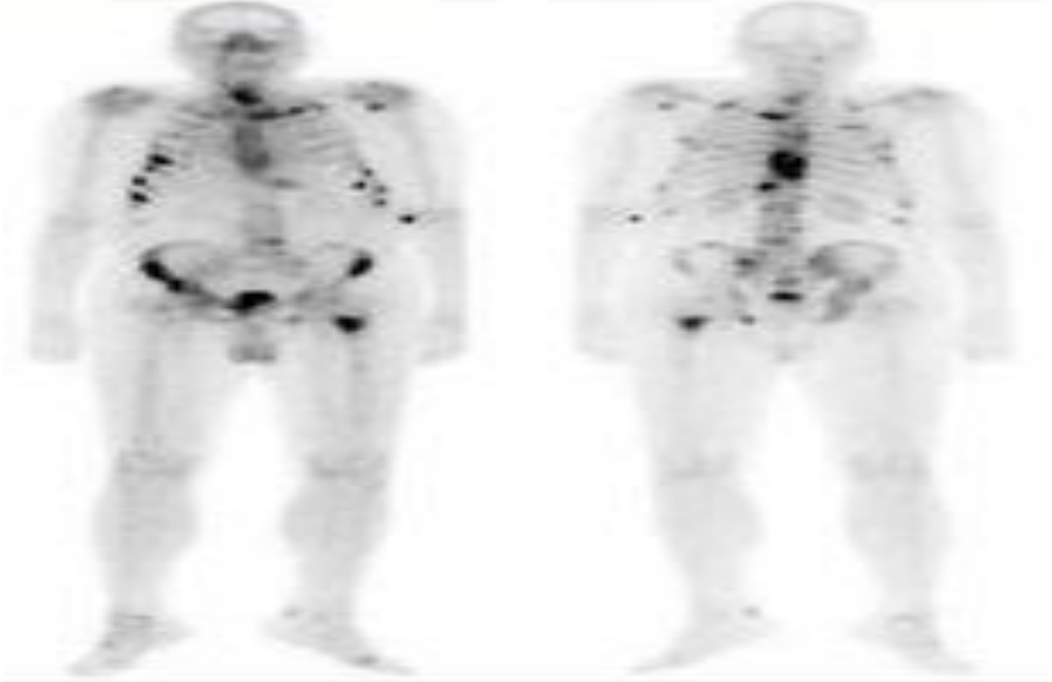
Q) WE can use Positive TRAb to confirm diagnosis?

True



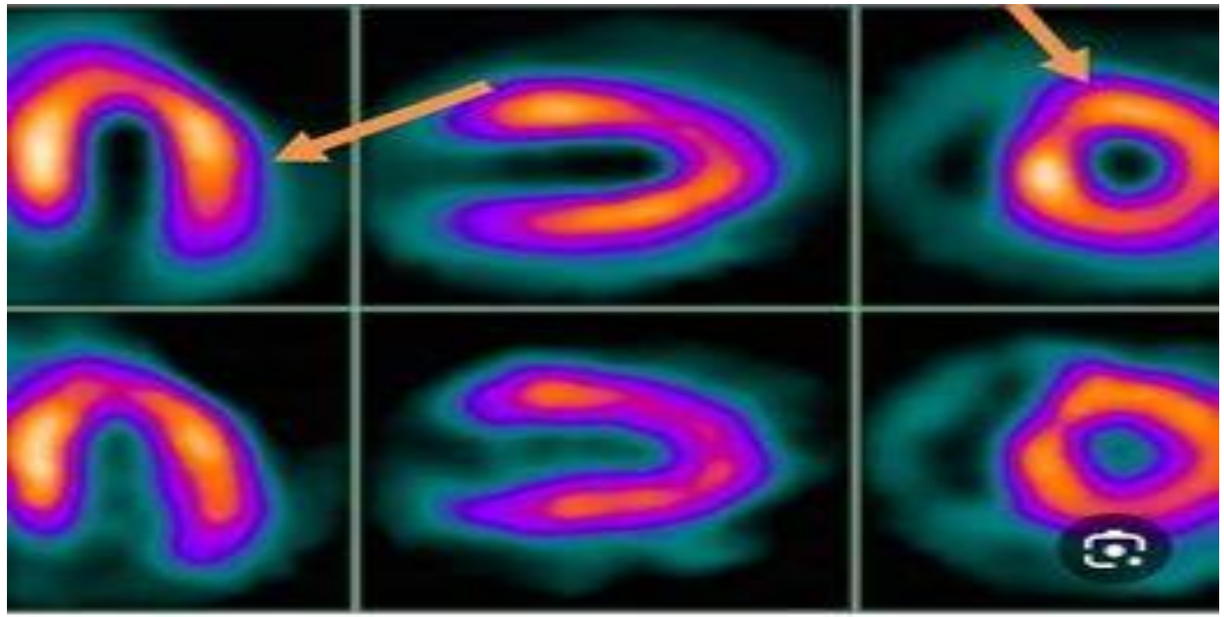
Q) This picture shows Mets from prostate cancer?

True



Q) All images in this picture have the same blood supply?

True



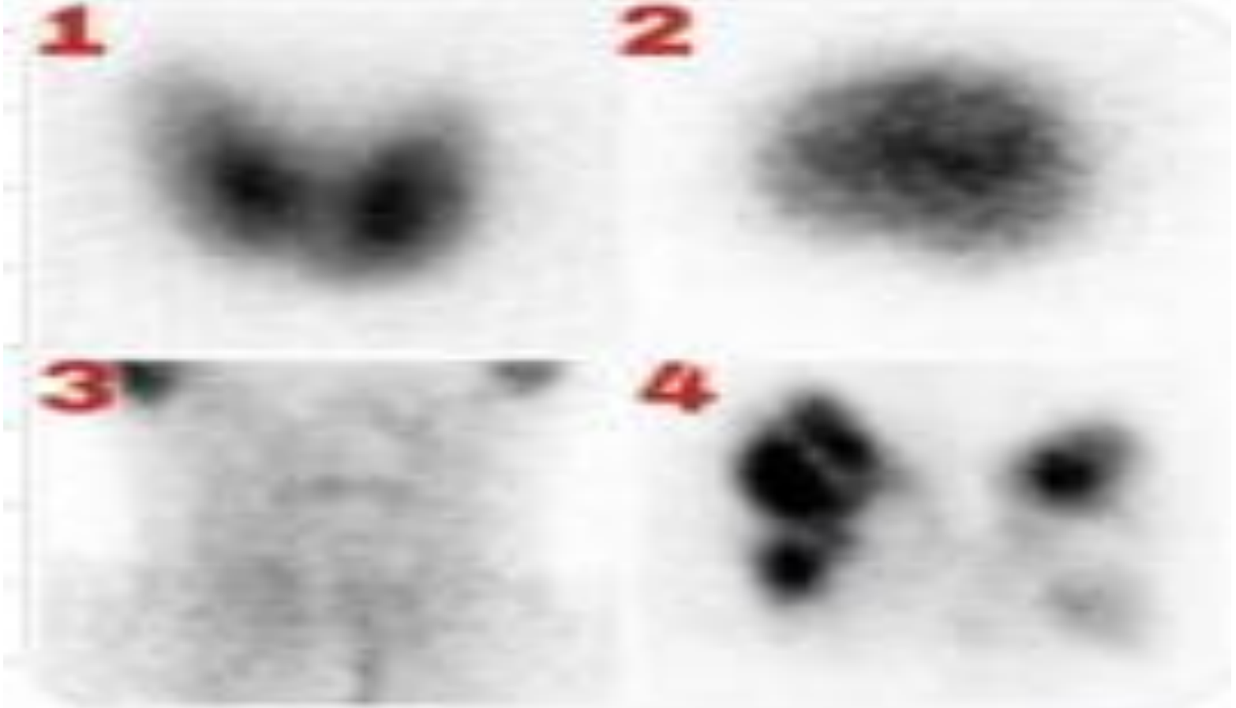
Q) What's the diagnosis for each of the following thyroid nuclear test?

1-graves' disease

2-toxic adenoma

3-subacute thyroiditis '

4-toxic multi-nodular goiter



Q) A nuclear question showing 2 PET scans to same patient with a tumor before and after treatment….

A) Name of this study?

PET SCAN

B) Radiopharmaceutical material used?

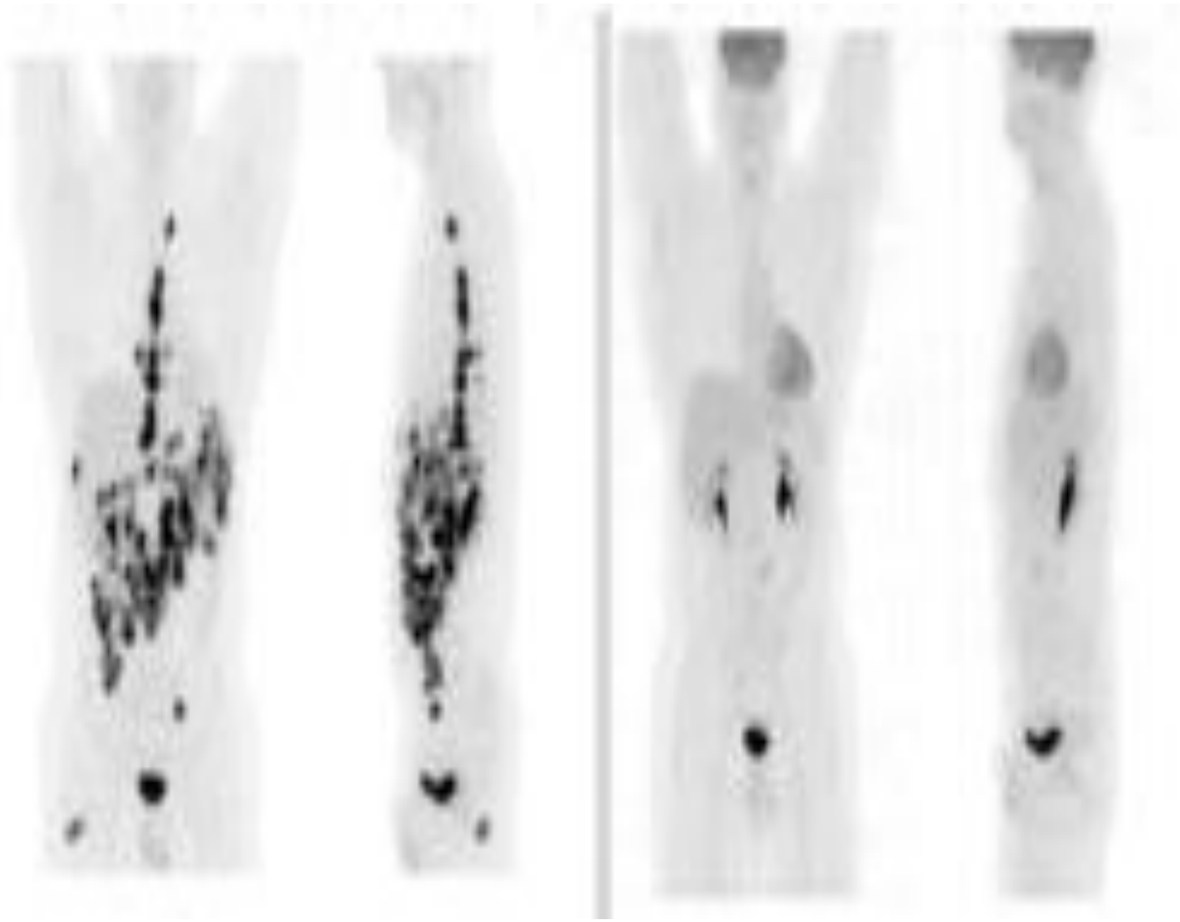
(FDG 18)

C) Uses of pet scan in oncology field?

To see if there is metastasis and to check response to treatment? staging, response assessment, evaluation of Tx, myocardial viability.

D) Did this patient respond to treatment or not?

Yes



A) what is the half-life of the radio isotype and how is produced?

6 hours, generator

B) what are the walls labeled?

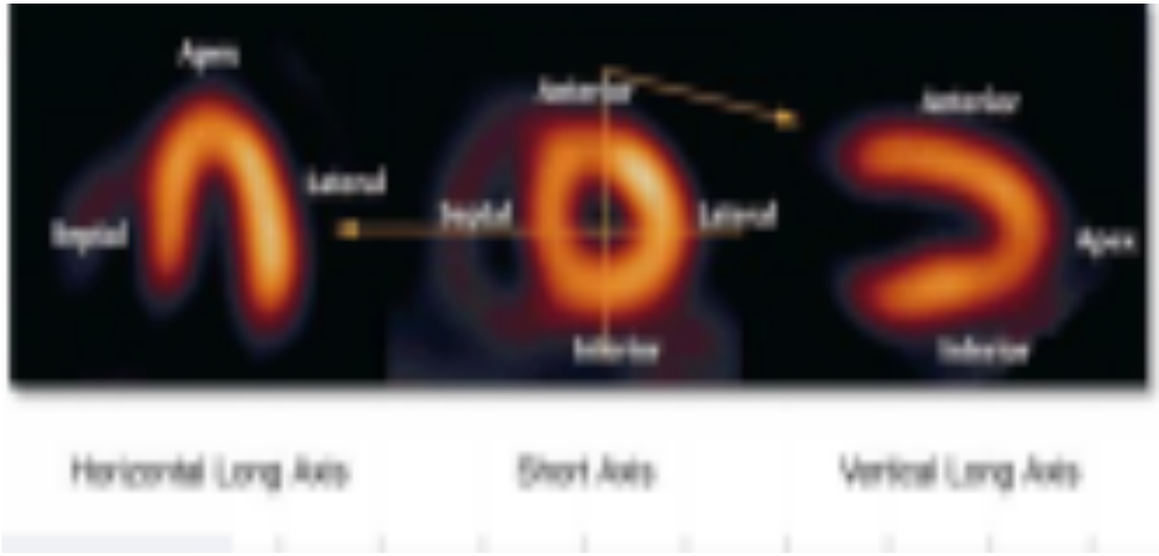
Ant and septal wall

C) how can we induce stress state?

Exercise or pharmaceutical(vasodilator)

D) the picture shows infarction true or false?

True



Q) Renal imaging….

A) describe the findings?

The right kidney was less functioning of the left

B) Mention 3 uses:

➢assess differential renal function

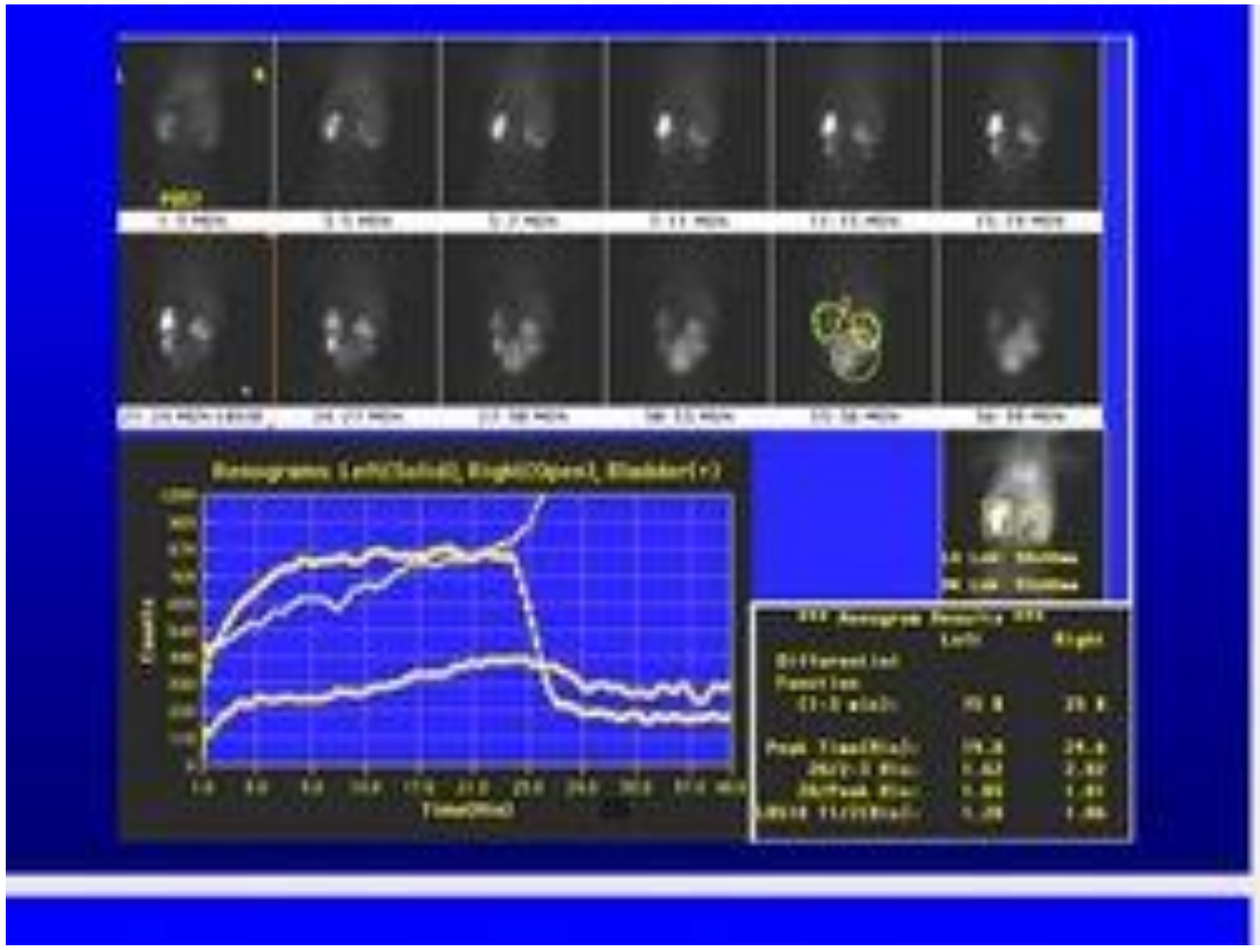
➢diagnose urinary tract obstruction (determine urodynamic significance of hydronephrosis seen on ultrasound)

➢assess for renovascular hypertension

C) True or false?

Captopril used in hypertension of Reno vascular causes:

true



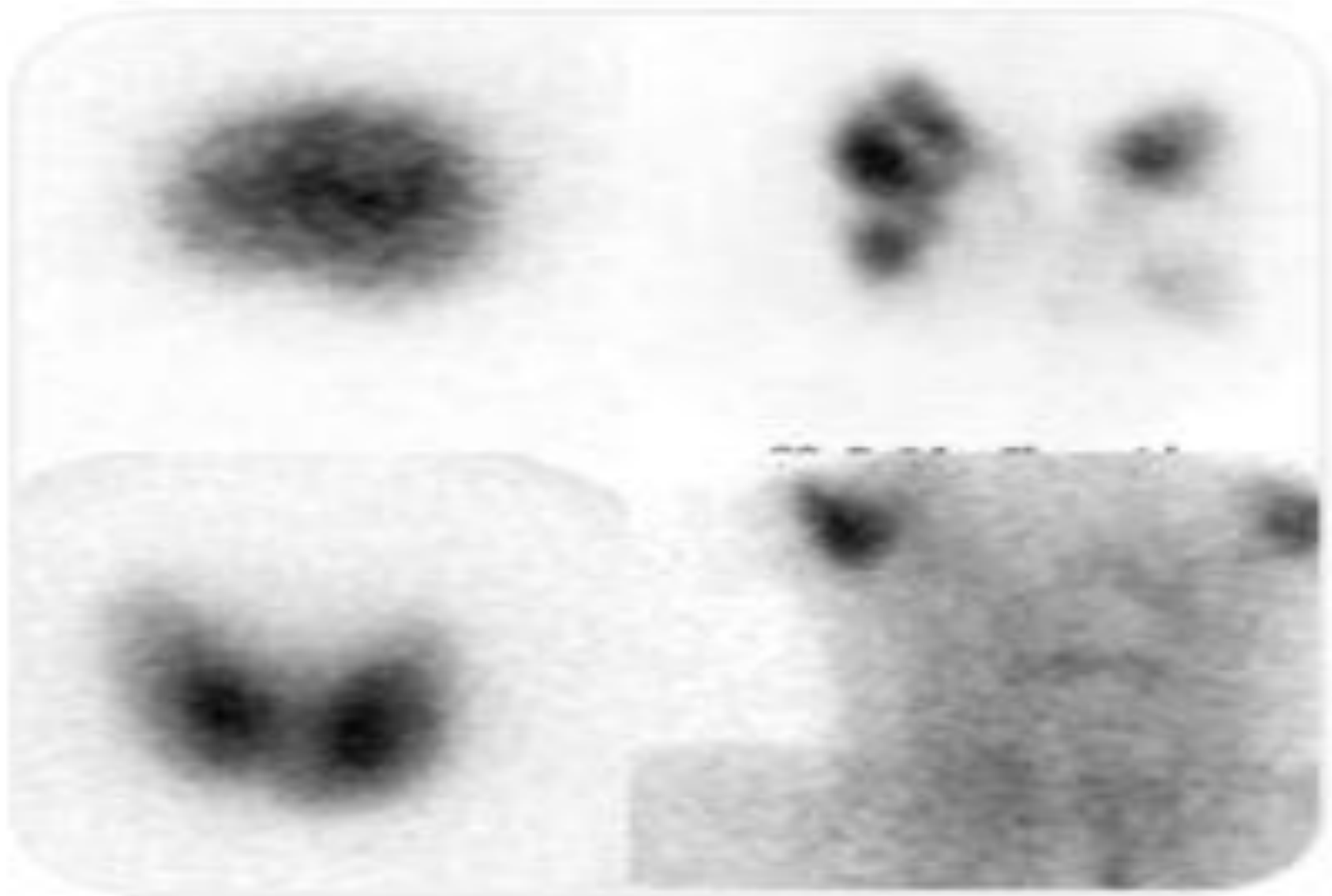
Q) Mention the diagnosis in each case of hyperthyroidism:

1. Toxic adenoma

2. Toxic "autonomous" multinodular goiter

3. Graves' disease

4. Subacute thyroiditis



THEORY

1) A man with high T3, T4, low TSH, did uptake that showed <4% uptake, what's the next step of management:

a. Treat with radioactive iodine

b. Treat hyperthyroid symptoms and then follow up in the next 2-3 months*

c. Give anti-thyroid meds and then after 2-3 months start him on thyroxine for life

2) increased iodine uptake, true:

B) Diffuse thyroiditis

A) Graves*

3) Cardiac perfusion scan which is wrong?

Decrease basal septum perfusion indicates infarction *

4) All are true about Tc Except:

a. multiple valent states and good chemistry

b. Half-life of 6 hours c. Adsorbed by aluminum"

d. Decay by isomeric transition

e. originates from Mc

5) Not found in hyperparathyroidism:

a. bamboo spine*

b. subperiosteal bone resorption

c.salt-pepper skull appearance

d.RuggerJersey

e. calcification in soft tissue

6) wrong about radio nuclear

a- less than 10 rad usually no effect or asymptomatic effect

b- radio nuclear use 0.46 rad

c- any small radiation can cause malignancies

d. Decay by isomeric transition

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a. bamboo spine*

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