L1: Introduction To Radiology

Q1:Which of the following able to measure the density of the body tissue?
A- X-ray
B- Fluoroscopy
C- CT
D- MRI

Q2: What's the <u>unite</u> using to measuring density in the previous question?
A- Centimeter Square
B- Hounsfield Unit (HU)
C- Pascal
D- Becquerel (Bq)

Q3: Patient had head trauma and you suspect that he has "intracranial hemorrhage", Which of following modalities you will choose?
A- CT
B- Conventional x-ray
C- MRI
D- X-ray with contrast
Hint; the answer is the modality of choice in traumatic head injury bc it's quick, can show bone status and detect early onset of hemorrhage. So it's good for 3B: Blood, Bone, Brain.

Q4: Which of the following modalities has poor anatomical information?
A- CT
B- MRI
C- X-ray
D- Nuclear Medicine

Q5: Which of following may evoke the claustrophobia?
A- CT
B- MRI
C- X-ray
D- Nuclear Medicine

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1 > C
2 > B
3 > A CT is best for hemorrhagic"urgent diagnosis" , MRI is best to detect the ischemic at the ons
4 > D
5 > B

Q1: Which of the following is acute/deterministic effect?

A- High level of radiation over short period of time.

B- High level of radiation over long period of time.

C- low level of radiation over long period of time.

D- low level of radiation over short period of time.

Q2: Which of the following is a characteristic of Chronic/Stochastic/Probabilistic effect?

A- Severity increases with increasing the dose.

B- Severity of the effect is not dose related.

C- Can not be predicted with certainty

D- Has threshold to be effected.

Q3: Which of the following is an example of Stochastic effect?

A- Cataract

B- Erythema

C- Infertility

D- Genetic effect

Q4: On which amount of exposure to radiation the patient will suffer from CNS symptoms and could die within 1-2days?

A- 200 rem

B- 400 rem

C- 1000 rem

D- 5000 rem

Q5: The radiologist wears …………..... to know the amount of exposure:

A- Film packet

B- Thermoluminescent Dosimeter(TLD)

C- Geiger-Müller (GM) Detector

D- Scintillation Detector

Q6: Radon produced by decay of Uranium and Thorium, this is an example of;

A- Radioactivity Manmade source

B- Radioactivity Naturally source

C- Neither

Q7: Which of following is the most widely used Radioactive?

A- Radon

B- Carbon 14

C- Technetium

D- Potassium -40

Q8: All the following statements is correct regarding Non-ionic contrast media except;

A- Does not dissociate

B- Does not increase in blood osmolality

C- Less reaction

D- Create hypertonic condition

Q9: In the <u>Negative-contrast</u> the organ become ……….. Because of …………. ;
A- Radiolucent - High atomic weight
B- Radiolucent - Low atomic weight
C- Radiopaque - High atomic weight
D- Radiopaque - Low atomic weight

Q10: What's the method of administration of the Barium enema?
A- Intrathecal
B- Retrograde
C- Intravenous
D- Oral

1 > A
2 > B
3 > D
4 > D
5 > B
6 > B
7 > C
8 > D
9 > B
10 > B

L3: CVS + Resp (Anatomy)

Q1: If we have a pathology located in upper zone we can't see the lesion except in _____ view.
A- AP view.
B- PA view.
C- lateral view.

Q2: What is the difference between Rt and Lt lung?
A- major fissure only in the Rt.
B- major fissure only in the Lt.
C- minor fissure only in the Rt.
D- minor fissure only in th Lt.

Q3: What is the best view for evaluating the septal and lateral walls and apex of the left ventricle?(MRI).
A- Vertical long axis view.
B- Horizontal long axis view.
C- Short axis view.
D- aortic view.

1 > C
2 > C
3 > B

L4: Resp. Diseases

Q1: Air-Bronchogram sign in chest x-ray indicate which of the following?
A- Pleural effusion
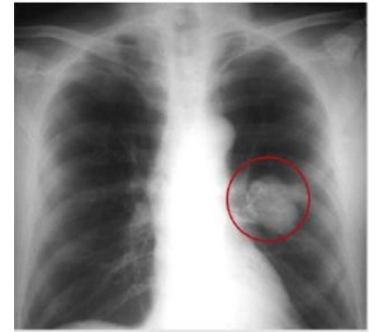B- Obstructive atelectasis
C- Pneumonia
D- Pneumothorax

Q2: Why the radiologist prefer PA view instead of AP view?
A- increase magnification of heart.
B- increase radiation dose to sensitive organs.
C- reduce magnification of heart.
D- unclear visualise maximum areas of lung.

Q3: Patient came to ER with history of hemoptysis and weight loss for the last two weeks, we did a chest X-ray for him and the result was: (see the picture).
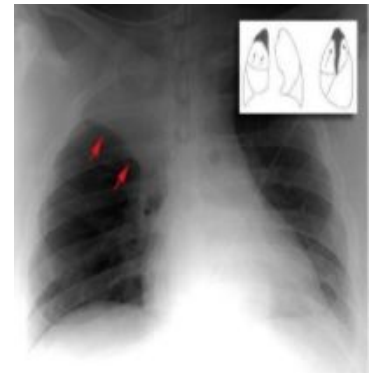 - **So what is the most likely diagnosis?**

A- Lung mass
B- Emphysema
C- Heart failure
D- Pneumonia

Q4: patient came to ER with sharp and stabbing chest pain that worsens on breathing or with deep inspiration. From the CXR what is the most likely finding in this patient?
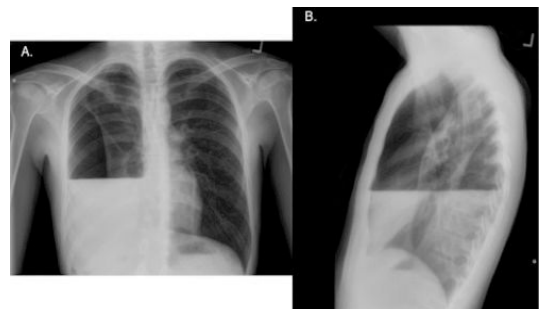

A- Contralateral shifting of trachea.
B- Consolidation.
C- Normal chest X-ray.
D- Decrease in lung volume.

Q5: Patient came to ER with history of sudden onset chest pain, dyspnea, rapid heart rate and cough, CXR was performed.
  - **What is the most likely diagnosis ?**

A- Hydropneumothorax.
B- Pleural effusion.
C- Lung mass.
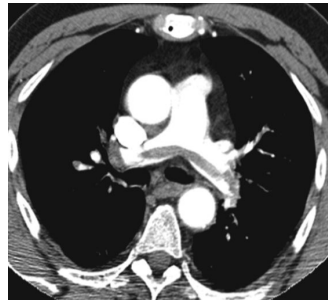D- Emphysema.

1 > C
2 > C
3 > A
4 > D
5 > A

L5: CVS Diseases

Q1: Patient come to the ER has SOB and sudden pleuritic chest pain, u take a Hx and u found out she's a teacher and on oral contraceptive, CXR is Normal, What is ur next step?
A- Do high resonant CT
B- Do CT angiogram
C- Do MRI
D- Do TEE

Q2: What's ur diagnosis?

A- Pulmonary embolism

B- Myocardial infarction
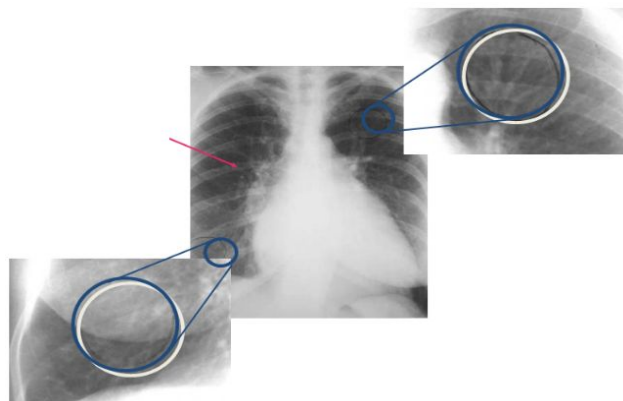
C- Congestion heart failure

D- Aortic aneurysm

Q3: Which of following modality is commonly used to diagnose acute pulmonary embolism?
A- X-ray with contrast
B- CT angiogram
C- MRI
D- Ultrasound

Q4: On CXR, there's <u>Cephalization</u> (upper lobe vessels equal or larger than size of the lower vessels), this characteristic most likely belong to …. ?

A- Normal CXR

B- Pulmonary arterial hypertension

C- Pulmonary venous hypertension

D- Pulmonary venous hypertension

Q5: Patient come to the ER bc of dyspnea & cyanosis, CXR reveal diffuse consolidation large area as in the PIC. What's ur differential diagnosis?

A- Pneumonia

B- Acute pulmonary edema

C- intraparenchymal bleeding

D- Bronchitis

Q6: Patient with dyspnea, chest pain (discomfort, pressure like), orthopnea, and feeling of chest fullness, CXR revealed that CTR is more than 50%, what's the most likely finding after seeing the CT ?

A- Valve regurgitation

B- Pericardial effusion

C- Pulmonary venous hypertension

D- None of the above

1 > B
2 > A
3 > B
4 > C
5 > B
6 > B