



RADIOLOGY FINAL PAST PAPERS



COLLECTED BY:
Lejan 021

SPECIAL THANKS 😊

020 Final:

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Notes before we start.

1. This file contains all the available P.Ps regarding Radiology rotation all up to 020 Batch sectioned by topics.
2. US Lecture has No Qs at all.

الدعاء بالرحمة للزميل عمر عطية المرابي
اللَّهُمَّ، اغْفِرْ لَهُ وَارْحَمْهُ، وَاعْفُ عَنْهُ وَعَافِهِ، وَأَكْرِمْ نُزُلَهُ، وَوَسِّعْ مَدْخَلَهُ، وَاعْسِلْهُ بِمَاءٍ وَثَلَجٍ وَبَرْدٍ، وَنَقِّهِ مِنَ
الْخَطَايَا كَمَا يُنْقَى الثَّوْبُ الْأَبْيَضُ مِنَ الدَّنَسِ

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دعاء قبل المذاكرة

اللَّهُمَّ إِنِّي أَسْأَلُكَ فَهَمَ النَّبِيِّينَ، وَحِفْظَ الْمُرْسَلِينَ وَالْمَلَائِكَةِ الْمُقَرَّبِينَ،
اللَّهُمَّ اجْعَلْ أَلْسِنَتَنَا عَامِرَةً بِذِكْرِكَ، وَقُلُوبَنَا بِخَشْيَتِكَ، وَأَسْرَارَنَا بِطَاعَتِكَ،
.. إِنَّكَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ، وَحَسْبُنَا اللَّهُ وَنِعْمَ الْوَكِيلُ

Introduction to Radiology

1. Regarding lesions that appear hyperdense on CT-Scan, one is False:

- A. Metallic clips
- B. Intra-venous contrast
- C. Lipoma
- D. Acute hemorrhage
- E. Calcifications

Answer: C

2. All are relative contraindications of contrast except:

- A. Food allergy
- B. Penicillin allergy
- C. Asthma
- D. Previous contrast allergy
- E. Gluten sensitivity

Answer: D

3. True about the lung:

- A. High penetration and low attenuation
- B. High / High
- C. Low / Low
- D. Low / High
- E. No/No

Answer: A

4. Absolute contraindication of CT scan or Angiography contrast media involve all the following except:

- A. Pregnancy in the 3rd trimester
- B. Bronchial Asthma
- C. Previous allergy to contrast
- D. Acute Kidney injury
- E. Acute pancreatitis

Answer: E

5. 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

Answer: A

6. About MRI with contrast, all are wrong except:

- A. Contraindicated in renal failure grade III
- B. Contraindicated in the first trimester if contrasted
- C. Not contraindicated in 2nd and 3rd trimester
- D. Contraindicated in children

Answer: B

7. All are good conditions for Ultrasound except:

- A. Thin patient
- B. Children
- C. Recent endoscopy
- D. Full bladder

Answer: C

8. 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

Answer: A

9. Which is wrong about MRI:

- A. Has ionizing radiation but less than that of CT
- B. Contrast used in MRI is relatively safe
- C. Takes more time to be done than CT

Answer: A

10. Most attenuation in:

- A. Liver
- B. Lung
- C. Bone

Answer: C

11. Contrast CT for asthma patient, preparation by:

- A. Oral prednisolone
- B. Inhaler steroids
- C. IV hydrocortisone

Answer: A

12. Allergy to contrast material in all except:

- A. Asthma
- B. Atopy
- C. Hypothyroid

Answer: C

13. 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

Answer: B

14. Regarding MRI, one is wrong:

Answer:

Indicated to make sure about position of pacemaker

15. Which is wrong:

Answer:

Stir sequence is T1 minus fat signal

16. Best modality for calcification is:

Answer:

CT

17. Contraindication for MRI:

Answer:

Ferromagnetic substance inside the body

18. High penetration and low attenuation?

Answer:

Lung parenchyma

19. All are advantages of MRI over CT except:

Answer:

Used for detection of intraorbital metallic foreign body

Biological Effects of Radiation

1. ALARA stands for:

- A.** As low as reasonably applicable
- B.** As low as reasonably accessible
- C.** As low as reasonably affordable
- D.** As low as reasonably achievable

Answer: D

2. Which is true about stochastic effect?

Answer:

Has a linear proportion with radiation dose

1. Which of the following is not a site of hypertensive intracerebral hemorrhage?

- A. Putamen
- B. Thalamus
- C. Pons
- D. Cerebellum
- E. Temporal lobe

Answer: E

2. Concerning Radiological signs of diffuse brain edema in post-traumatic patients, one is False:

- A. Small size ventricles.
- B. Pseudo-sub-arachnoid sign
- C. Diffuse brain hypo-density
- D. Effacement of basal cistern
- E. Loss of gray-white matter differentiation

Answer: B

3. Concerning subdural hematoma, one is false:

- A. Treated with Bur hole
- B. Appears isodense in chronic stage
- C. More common in old age
- D. Of different ages in children raise the possibility of non-accidental injury
- E. Crosses sutures

Answer: B

4. All are seen on CT scan in diffuse edema except:

- A. Subarachnoid haemorrhage
- B. Loss of grey-white differentiation
- C. Small ventricles
- D. Effacement of sulci and basement cisterna
- E. Brain is diffusely hypodense on CT

Answer: A

5. A hyperdensity can be seen normally in brain CT in all of the following except:

- A. Pituitary
- B. Tentorium
- C. Tentorium
- D. Falx cerebri
- E. Eye lens

Answer: A

6. 25 year old female without trauma presented with headache and fever for 10 days, CSF revealed Lymphocytic pleocytosis and high protein,CT scan showed bilateral temporal hemorrhage.most likely diagnosis:

- A. Herpetic encephalitis
- B. Bacterial meningitis
- C. SAH
- D. West Nile

Answer: A

7. Wrong about acute extradural hematoma:

- A. Biconvex hypodense
- B. Usually traumatic
- C. Midline shift
- D. Brain pressure

Answer: A

8. Patient presented with traumatic head injury, which is true?

- A. Do MRI
- B. Do CT
- C. Wait and observe

Answer: B

9. Biconvex lesion on CT:

Answer:

Extradural hematoma

10. Wrong match:

- A. Semilunar hypodense and acute subdural haemorrhage
- B. Biconvex hyperdense and epidural haemorrhage

Answer: A

11. The best for diagnosis of brain calcification:

- A. MRI
- B. CT

Answer: B

12. Wrong about intracranial hemorrhage:

Answer:

Intraventricular hemorrhage has a good prognosis

13. Frontal mass with calcifications, most likely?

Answer:

Oligodendroglioma

14. Which of the following is wrong?

Answer:

Epidural hematoma treated with burr hole

MRI

1. Best modality for diagnosing intra cerebral hemorrhage is:

- A. T1
- B. T2
- C. T*
- D. DWI
- E. ACA

Answer: C

2. The best way to diagnose cavernous sinus thrombosis:

- A. MRI
- B. MRV
- C. CT
- D. Dobbler US

Answer: B

3. Best modality to detect acute brain ischemia:

- A. CT without contrast
- B. T2
- C. T*
- D. DWI/ADC

Answer: D

4. What is wrong:

- A. Extra-axial tumors have wide meningeal attachment
- B. Failure to enhance on T1 contrasted imaging rule out intra-axial tumor

Answer: B

5. Judicial Hanging:

- A. CERVICAL fracture
- B. Cerebral anemia

Answer: A

6. Wrong about MRI sequences:

Answer:

White matter is hyperintense compared to cortex in FLAIR

7. True about cytotoxic edema:

Answer:

Hyperintense in diffusion weighted sequences

8. Wrong about meningioma:

Answer:

Mostly presents as an intra-axial lesion

9. Which is true:

Answer:

Acute ischemia appears hyperintense on DWI due to cytotoxic edema

10. Wrong about tumor mass:

Answer:

Cytotoxic edema

11. Wrong match:

Answer:

Infarction with vasogenic edema

12. Which of the following is wrong?

Answer:

Spondylodiscitis>> loss of vertical height excludes the disease

13. Wrong:

Answer:

Extramedullary intradural lesion cause cord expansion

14. Stroke in MRI:

Answer:

Hyperintense in DWI, Hypointense in ADC

X-Ray

1. Wrong about lobar pneumonia:

- A. Lower lobe obliterate diaphragm
- B. Upper left lobe may obliterate left heart border
- C. Middle right lobe obliterate right heart border
- D. Inferior left lobe obliterates descending aorta
- E. Right middle lobe pneumonia is bounded inferiorly by horizontal fissure

Answer: A

2. In supine position X-ray which is wrong?

- 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

Answer: D

3. 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

Answer: A

4. All of the following cause a radiolucent hemithorax except:

- A. PE
- B. Small lung
- C. Mastectomy
- D. Emphysema
- E. Rotation of patient

Answer: E

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

- A. 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 hemidiaphragm
- D. Obliteration of aorta
- E. Ill-defined opacity in the left upper and middle zones

Answer: D

6. Which of the following is true about chest x ray:

- A. 8 pairs is the number of true ribs
- B. Retrocardiac area is considered one of the hidden areas
- C. Cardiothoracic ratio in adults is
- D. Right hilum is higher than the left
- E. Right contour of heart is made by (right ventricle, SVC, IVC)

Answer: B

7. 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

Answer: B

8. Wrong about air bronchogram:

- A. Common in pulmonary edema
- B. Common in pneumonia
- C. Associated with a lesion
- D. Normally visible in 10% of adults

Answer: D

9. About chest x-ray which is wrong?

- A. Right heart border is in contact with right middle lobe
- B. Upper most part of the right heart border is in contact with upper lobe
- C. Aortic notch is in posterior mediastinum
- D. Left heart border is in contact with left lower lobe

Answer: D

10. Tension pneumothorax, wrong:

- A. Pleural line on X-ray
- B. Absent lung making ipsilateral
- C. Horizontal hemidiaphragm ipsilateral
- D. Mediastinum shift to the ipsilateral side

Answer: D

11. In chest X-ray, one is wrong:

- A. Right dome of diaphragm is higher than left
- B. Minor fissure appears in anterior Part of 4th space
- C. PA X-ray is better than AP
- D. Right hilum is higher than the left

Answer: D

12. All cause bilateral small lung except:

- A. Consolidation
- B. Bowel distension
- C. Suboptimal inspiration
- D. Obesity

Answer: A

13. 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

Answer: A

14. A chest x-ray showed an opacity silhouetting the left heart border, diaphragm is clearly seen. Which lobe is affected?

- A. Middle right lobe
- B. Lower left lobe
- C. Whole left lung
- D. Upper left lobe

Answer: D

15. Regarding CXR physics, which of the following is true:

- A. Radiolucent object stops x ray beams
- B. Radiolucency is black on chest x ray
- C. Radio opaque allows that x ray beam to pass with little absorption
- D. Contrast appears radiolucent on x ray

Answer: B

16. 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.

Answer: B

17. Wrong about chest imaging:

- A. CXR can view nodules <5mm
- B. Mediastinal window is better than lung window in viewing heart
- C. Spiral CT is the imaging modality of choice for PE

Answer: A

18. About chest x-ray which is wrong?

- A. PA and lateral views are the routine
- B. On lateral view, you see all right hemidiaphragm
- C. On lateral view, you can't see the anterior part of left hemidiaphragm

Answer: B

19. Collapse of the right upper lobe of the lung causes all except:

- A. Rt hilum upward
- B. Rt horizontal fissure upward
- C. Rt bronchus to the contralateral side

Answer: C

20. Collapse of right upper lobe, which is wrong?

- A. Right hilum is higher
- B. Right hemidiaphragm is higher
- C. Shift of mediastinum to the left

Answer: C

21. All are radiological signs that favors cancer of the bronchus except:

- A. Peripheral calcified nodule
- B. Lymphangitis carcinomatosa
- C. Hilar LN

Answer: A

22. All will cause diffuse nodular chest x-ray except:

- A. Sarcoidosis
- B. Wegener's

Answer: A

23. Wrong about CXR:

- A. In AP cardiac size is exaggerated
- B. Easy to do in 5 years old child

Answer: B

24. Wrong about tension pneumothorax:

Answer:

Contralateral widening of intercostal spaces

25. Wrong about pleural effusion:

Answer:

Visible pleural edge

26. Lowest attenuation and highest penetrance in chest X ray in:

Answer:

Lung alveoli

27. Wrong about pleural effusion:

Answer:

Usually affect the costophrenic angles and do not affect the hemidiaphragm

28. Wrong about chest x-ray:

Answer:

Hila contain blood vessels and lymph nodes

29. Wrong about middle lobe collapse:

Answer:

Lung volume is unchanged

30. Pneumoperitoneum, which is wrong:

Answer:

Best modality is standing upright x-ray

GI Radiology

1. Which is false about Crohn's disease?

- A. Skip lesions
- B. Most common presentation in terminal ileum
- C. Most common string sign in terminal ileum
- D. Cause mesenteric adenopathy
- E. Age of onset is 15-30

Answer: D

2. Striated kidney in IVU in all Except:

- A. Polycystic kidney
- B. Medullary spongiosis
- C. Renal vein thrombosis
- D. Renal artery stenosis
- E. Acute nephritis

Answer: D

3. 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

Answer: B

4. All are causes of false positives except:

- A. Poor hydration
- B. Bladder outflow obstruction
- C. Poor renal function
- D. Huge collecting system
- E. Non -fasting state

Answer: E

5. All true regarding renal study except:

- A. DTPA extraction efficiency of 40 percent
- B. DMSA coefficient extraction is 10%
- C. DTPA represents filtration
- D. MAG3 represents secretion
- E. DMSA is used for calyceal system evaluation

Answer: A

6. Wrong about Ulcerative colitis:

- A. Strictures are common
- B. Slightly More common in males
- C. 95% in the rectosigmoid area
- D. Radiation ileitis is a differential diagnosis
- E. Has malignant potential in many years

Answer: A

7. True about Abdominal aorta:

- A. Bifurcate of Aorta at the level of L3
- B. Superior mesenteric artery arise at the level of L1
- C. Celiac trunk arise at the level of T11
- D. Splenic artery is a branch of superior mesenteric artery
- E. None of the above is correct

Answer: B

8. Which of the following is false about diverticulosis:

- A. Saclike outpouchings
- B. Very common in elderly
- C. LIF pain is common symptom
- D. Commonest in the cecum
- E. Diverticulum has a narrow neck

Answer: D

9. 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. Diameter of normal colon should be less than 5 cm

Answer: D

10. Which is false about sigmoid volvulus?

- A. Coffee bean sign
- B. Lateral border overlap liver shadow
- C. Apex under right hemidiaphragm
- D. Chronic volvulus is associated with shouldering edges

Answer: D

11. Liver hemangioma false:

- A. Hypointense signal on T2
- B. Hyperechoic signal on U/S
- C. Most common benign liver tumor
- D. Mostly eccentric and subcapsular

Answer: A

12. Diverticulosis, which is wrong?

- A. Patients presenting with obstruction need surgery
- B. Fistula commonly to vagina and bladder
- C. 20% develop diverticulitis
- D. Usually with pain and abdominal tenderness

Answer: D

13. Wrong About contrasted 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

Answer: A

14. A patient came with urea 10 XNL, all are initial workup except:

- A. US
- B. IVP
- C. Plain abdomen
- D. Hand radiography

Answer: D

15. Not true about barium enema:

- A. Safe to use in perforation
- B. Water insoluble material
- C. Causes constipation and impaction
- D. Cheap

Answer: A

16. Scenarios describing a sudden onset of vertigo without hearing loss for 3 days duration, that resolved on its own:

- A. Labyrinthitis
- B. Vestibular neuritis
- C. Meniere
- D. BPPV.

Answer: B

17. Barium contrast is absolutely contraindicated in:

- A. Tracheoesophageal fistula
- B. Perforated Duodenal ulcer
- C. Colon CA

Answer: B

18. The most specific test to detect gallstones is:

- A. ERCP
- B. OCG
- C. US

Answer: C

19. Regarding Ba enema, one is wrong:

- A. Contraindicated in colon perforation
- B. Ba sulfate is injected per-rectum
- C. Contraindicated in intestinal obstruction

Answer: C

-all are true according to slides

20. In abdomen Ct, one is wrong:

Answer:

Per pancreatic hypodense area is pancreatitis

21. In ulcerative colitis barium enema, all true except:

Answer:

Normal segment between two affected areas

22. Duodenal ulcer, all true except:

Answer:

Double contrast is superior to endoscopy in dx

23. Wrong:

Answer:

- Uncinate in front of mesenteric vessels
 - Pancreas location is inferiorly oblique from right to left
-

24. What is wrong:

Answer:

Mucosal folds increase in number as we go towards ileum

Mammography

1. Recent mammogram showed an oval well-defined mass that is unchanged since 2016. The most appropriate BI-RADS classification is::

- A. BI-RADS 2
- B. BI-RADS 3
- C. BI-RADS 4
- D. BI-RADS 5
- E. BI-RADS 1

Answer: A

2. The most likely mammographic appearance of a biopsy proven fibroadenoma is:

- A. Oval well defined mass
- B. Cluster of pleomorphic microcalcifications
- C. Area of architectural distortion
- D. Microlobulated mass
- E. An ill-defined rounded mass

Answer: A

3. A mammogram of a woman who had previous breast surgery and radiotherapy showed calcifications at operative site that were assigned BI-RADS2. What was the morphology of these calcifications?

- A. Popcorn calcifications
- B. Fine pleomorphic microcalcifications
- C. Egg shell calcifications
- D. Rod like calcifications
- E. Fine linear microcalcifications

Answer: C

4. Calcified ring on mammogram:

- A. Cyst
- B. Fat necrosis
- C. Fibroadenoma

Answer: A

5. A women diagnosed with invasive ductal carcinoma, did mammogram after chemotherapy, revealed a round well-defined mass, what is the BIRADS:

- A. 2
- B. 3
- C. 4
- D. 5
- E. 6

Answer: E

6. A 25 year old woman did a mammogram, which revealed a fatty breast, an oval well defined isodense mass, what is the ACR and BIRADS:

- A. ACR 1 BIRADS 3
- B. ACR 1 BIRADS 2
- C. ACR 2 BIRADS 2
- D. ACR 1 BIRADS 1
- E. ACR 4 BIRADS 2

Answer: A

7. If you found 10 mm mass on mammogram, which of the following is a feature of malignancy:

- A. Central lucency
- B. Peripheral part of fat density
- C. Clustered coarse calcifications
- D. Irregular posterior border that appears well-defined on magnification view
- E. Previous normal mammogram

Answer: C

8. All are against malignancy except:

- A. History of extramammary malignancy
- B. Fat containing
- C. Multiple
- D. Total lucency
- E. Halo

Answer: A

9. If you found 10 mm mass on mammogram, which of the following is a feature of malignancy :

- A. Hyper density
- B. Peripheral part of fat density
- C. Coarse calcification
- D. Irregular posterior border that appears well-defined on magnification view
- E. Previous normal mammogram

Answer: A

10. Recent mammogram showed an oval well-defined mass . The most appropriate BIRADS classification is:

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Answer: B

11. A mammogram of a woman who had previous breast surgery and radiotherapy showed calcifications at operative site that were assigned BI-RADS2. What was the morphology of these calcifications?

- A. Popcorn calcifications
- B. Fine pleomorphic microcalcifications
- C. Egg shell calcifications
- D. Rod like calcifications
- E. Fine linear microcalcifications

Answer: B

12. Patient suffered a traumatic breast injury, mammography will most likely show:

- A. Rod calcifications
- B. Fine linear branching calcifications
- C. Eggshell calcifications
- D. Dystrophic

Answer: C

13. A 44 years old female pt regularly does a mammography every X years. Her recent mammography showed a mass that didn't change since her last mammogram (which was in 2020 (the Q was in 2023)). Which of the following is true?

- A. Repeat mammogram with the same screening interval
- B. Consult a doctor urgently
- C. Repeat the mammogram every 6 months
- D. Do surgery

Answer: A

14. All are asymmetrical breast tissue on mammogram except:

- A. Fibroma
- B. Lipoma
- C. Breast parenchyma

Answer: C

15. All good modalities for detection of breast lesions except:

- A. MRI
- B. US
- C. CT

Answer: C

16. Which of the following is would be classified as BIRAD4:

- A. Eggshell calcifications
- B. Cluster pleomorphic calcifications
- C. Dystrophic calcification

Answer: A

17. 26y/o lady presented with suspected breast mass the best imaging?

- A. Mammogram
- B. US

Answer: B

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

Answer:

2

19. Malignant calcifications:

Answer:

Linear / branching

20. In mammogram, needle shaped calcification that are thick and segmental pointing to the nipple, extensive, bilateral, indicates:

Answer:

Plasma cell mastitis

21. Not a cause of round lesion on mammogram:

Answer:

Carcinoma

22. A feature with the most malignant potential in mammography:

Answer:

Notch and lobar edge

23. A round, well-defined, radiolucent mass with enlarged axillary lymph nodes with a fatty hila, BiRADS category:

Answer:

4

24. Mircrolobulated:

Answer:

BIRAD 4

25. True:

Answer:

BIRAD 2 RADIOLUCENT AND OVAL LESION

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

Answer:

Egg-shell appearance

Interventional Radiology

1. The most sensitive sonographic/doppler sign to detect acute venous thrombosis is?

- A. Presence of collaterals
- B. Non-compressibility
- C. Skin changes and cellulitis
- D. Small caliber of the vein
- E. Increased flow by doppler exam

Answer: B

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

- A. General anaesthesia
- B. IV lines
- C. Consent
- D. Coagulation studies
- E. Patient fasting

Answer: A

3. All 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

Answer: A

4. 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

Answer: C

5. Which one of the following is true?

- A. Conventional venography is the modality of choice in imaging upper limb DVT
- B. Digital subtraction angiography is used in interventional radiology for visualization of blood vessels, other radio-opaque structures such as bones are eliminated.
- C. MRI has a major role in interventional radiology due to the lack of ionizing radiation
- D. Hypo-vascular tumors benefit more from embolization due to low risk of bleeding
- E. Percutaneous nephrostomy is contraindicated in cases of pyelonephritis

Answer: B

6. 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. Detect source of GI bleeding

Answer: A

7. All are true about abdominal aortic aneurysm except:

- A. 90% are suprarenal
- B. 66% extend to common iliac
- C. Can be visualized by ultrasound with 98% size accuracy
- D. >3 cm
- E. Can rupture retroperitoneally, especially to the left

Answer: A

8. 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

Answer: A

9. Wrong about abdominal aneurysms?

- 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
- D. Most common site is infrarenal

Answer: C

10. Which is false about angiogram?

- A. Femoral aneurysm is a relative contraindication to cath
- B. Left femoral artery is technically more accessible
- C. Most frequently used to reach aorta is femoral artery
- D. If pathology was on one side then access should be made through the other side

Answer: B

11. Wrong about femoral catheterization:

- A. Femoral artery is medial to femur
- B. Easily accessible
- C. Low complication

Answer: A

12. Wrong about angioplasty prognosis:

- A. Better in stenosis than occlusion
- B. Better in distal vessels
- C. Better in larger vessels

Answer: B

13. True about arteriograms:

- A. Intimal flap is a radiological sign of a dissection aneurysm
- B. Collaterals can be seen in acute VTE
- C. Thrombus appears as meniscus sign

Answer: A

14. CT guided biopsy is used in:

- A. Lung abscess
- B. Para-aortic L.N
- C. A & B

Answer: C

15. Endothelial repair which is wrong?

- A. Decreased hospital stay
- B. Generalized Anesthesia in all patients

Answer: B

15. Wrong about IVC filter:

- A. May lead to thrombosis
- B. Position is supra renal

Answer: B

16. US-guided biopsy is not chosen over CT guidance in:

Answer:

Lung biopsy

17. Wrong about interventional radiology:

Answer:

Agitated patient is suitable for a digital subtraction angiography

18. A patient has reversible, large ischemia in the lateral wall of his heart on perfusion study, with normal treadmill ECG, next step:

Answer:

Perform catheterization

19. Technique used in interventional radiology:

Answer:

Seldinger

MSK Radiology

1. Regarding classical features of non-ossifying fibroma, one is false; Select one:

- A. Split cortex sign
- B. Well defined
- C. Benign
- D. Cortical destruction
- E. Peripheral sclerosis

Answer: D

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

Answer: A

3. 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
- E. Diaphyseal

Answer: D

4. All will cause opacities on skull x-ray except:

- A. Histiocytosis
- B. Irradiation
- C. Multiple myeloma
- D. Mets
- E. Spherocytosis

Answer: C

5. Not in seronegative osteoarthritis:

- A. Distal pattern
- B. Non-Erosive
- C. Uniform joint space loss
- D. Osteopenia
- E. Proliferation

Answer: B

6. Not found in ankylosing spondylitis:

- A. Bamboo spine
- B. Shiny corner sign
- C. Rugger Jersey
- D. Dagger sign
- E. Trolley track sign

Answer: C

7. Not found in hyperparathyroidism:

- A. Bamboo spine
- B. Subperiosteal bone resorption
- C. Salt-pepper skull appearance
- D. Rugger Jersey
- E. Calcification in soft tissue

Answer: A

8. False about radiological findings in Osteoarthritis:

- A. Bilateral
- B. More prominent at lateral sides
- C. Osteophytes
- D. Geodes
- E. Space narrowing

Answer: B

9. Which of the following differences favors osteosarcoma over Ewing sarcoma in a 16 year old child?

- A. Pathological fractures
- B. Metaphyseal in site
- C. Permeative reaction
- D. Lamellated periosteal reaction
- E. Absence of bone matrix

Answer: B

10. One of these lesions is intramedullary:

- A. Chondromyxoid fibroma
- B. Enchondroma
- C. Osteoid osteoma
- D. GCT

Answer: B

12. Inflammatory arthritis which is wrong:

- A. Erosions
- B. Weight bearing joints
- C. Uniform joint space narrowing

Answer: B

13. Acute osteomyelitis all true except:

- A. Expands bone
- B. Rarefaction
- C. Reactive bone thickening

Answer: C

14. Super scan not in:

- A. Pulmonary osteodystrophy
- B. Osteomalacia
- C. Hyperparathyroidism

Answer: A

15. 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

Answer: A

16. True about gout:

- A. Punched out erosions
- B. Early joint narrowing

Answer: A

17. Wrong about septic arthritis:

Answer:

Symmetrical bilateral

18. Wrong about osteosarcoma:

Answer:

Diaphyseal

19. Wrong about non ossifying fibroma:

Answer:

Majority need surgery

20. Not a sign on inflammatory arthritis:

Answer:

Periarticular osteosclerosis AND affects weight-bearing joints

21. Tumor of epiphysis:

Answer:

Giant cell tumor

22. Three phase bone scan not used in:

Answer:

Osteoporosis

23. Which of the following is wrong?

Answer:

Non-uniformed joint space loss in septic arthritis

24. Ewing vs osteosarcoma:

Answer:

Ewing is diaphyseal

Nuclear Medicine

1. Coronary flow reserve following exercise:

- A. 0.5
- B. 4
- C. 5
- D. 2.5
- E. 1.5

Answer: D

2. Bone scan wrong indication:

- A. Lung
- B. Brain
- C. Breast
- D. Multiple myeloma
- E. Colorectal cancer

Answer: D

3. 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 Mo

Answer: C

4. I^{131} is used in the treatment of all of the following except:

- A. Toxic Adenoma
- B. Anaplastic Thyroid Cancer
- C. Papillary Thyroid Cancer
- D. Follicular Thyroid Cancer
- E. Toxic Multi-Nodular Goiter

Answer: B

5. In a pre treatment FDG/PET CT scan of a hodgkin lymphoma, there is increased uptake in 6 lymph nodes that are 4 to 5 cm in diameter, after completion of chemotherapy on FDG/PET CT scan there was no uptake and a residual mass 3 cm in diameter, which of the following is the next step?

- A. Reassurance and follow up
- B. Salvage chemotherapy
- C. Biopsy of the mass
- D. Excision of the mass
- E. Treat with radiotherapy

Answer: A

6. 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

Answer: C

7. 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
- D. Done to patient with CAD before surgery

Answer: C

8. Wrong about ^{99m}Tc :

- A. A half-life of 6 hours
- B. Cheap
- C. m: maximum
- D. Energy 140 keV

Answer: C

9. The probability of cold nodule to be benign is:

- A. 70%
- B. 85%
- C. 25%
- D. 15%

Answer: B

10. All of the following is used in myocardial perfusion scanning except:

- A. MAG3
- B. Tetrofosmin
- C. Sestamibi
- D. Thallium

Answer: A

11. 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

Answer: B

12. Increased iodine uptake:

- A. Graves
- B. Diffuse thyroiditis
- C. Recent contrast

Answer: A

13. Wrong about Radionuclear:

- A. Less than 10 rad usually no effect or asymptomatic effect
- B. Radionuclear use 0.46 rad
- C. Any small radiation can cause malignancies

Answer: C

-According to slides, no true answer-

14. Least indicated to do a myocardial perfusion scan:

- A. Patient with cath showing 75% stenosis
- B. Abnormal stress test in low risk patient
- C. Other choices were all low risk pts Indicated

Answer: A

15. Cardiac perfusion scan which is wrong:

- A. Higher sensitivity than ECG stress test
- B. Decrease basal septum perfusion indicates infarction

Answer: B

16. Myocardial perfusion studies:

Answer:

Coronary flow reserve

17. Not a trace in myocardial perfusion scan:

Answer:

Tn99 HMPAO

18. True about PET scan:

Answer:

Important for oncologic practice

19. Most commonly used PET tracer:

Answer:

¹⁸F-FDG

20. True:

Answer:

DMSA scan for pyelonephritis

Pediatric Cases

1. 4 year old child with abdominal pain and recurrent vomit. Ultrasound showed pseudo Kidney shaped appearance most likely diagnosis:

- A. Pyloric Stenosis
- B. Intussusception
- C. Volvulus
- D. Mesenteric adenitis
- E. Appendicitis

Answer: B

2. A 4 year old child presents with suspected pyloric stenosis. The best initial imaging modality is:

- A. Barium swallow
- B. Abdominal ultrasound
- C. Abdominal X-ray
- D. Abdominal CT scan

Answer: B

3. Wrong about rickets:

Answer:

Well defined margin of ossification nucleus

4. Leptomeningeal expansion:

Answer:

Growing fracture

5. Not abuse:

Answer:

Supracondylar

تم بحمد الله

إن أصبنا فمن الله وإن أخطأنا فمن أنفسنا
بالتوفيق جميعاً، لا تنسوننا من صالح دعائكم