

CPD QUESTIONNAIRE

Give ONE correct answer for each question.

1. Regarding magnetic resonance, choose one false answer.

- A. Gradient magnetic fields may stimulate nerves or muscles.
- B. Peripheral nerve stimulation is perceptible as 'tingling' or 'tapping' sensations.
- C. At gradient magnetic field exposure levels 50% to 100% above perception threshold, patients may experience pain.
- D. The majority of radiofrequency (RF) power transmitted for MR imaging is transformed into sound.

2. Which of the following statements associated with aortic rupture is true?

- A. CT is the gold standard for evaluating aortic rupture.
- B. The negative predictive value of a normal chest radiograph is high.
- C. There is a low mortality rate for major aortic surgical repair.
- D. Best selection criterion for endovascular repair is rupture immediately adjacent to the left subclavian artery (LSA) origin.

3. Which of the following statements is false?

- A. The covered portion of stent grafts should cross the lesion and at least 1.5 cm of the normal aorta at either end.
- B. When there is less than 15 mm of normal aorta between the aneurysm and the normal LSA, the covered part of the stent will not necessarily occlude the origin of the LSA in ensuring adequate length of the proximal landing zone.
- C. Closure of the tear in post-traumatic arch rupture often occurs spontaneously after stent graft insertion.
- D. The most common complication after stent graft implantation is leakage into the aneurysm.

4. Which of the following radiological signs is not associated with meconium peritonitis?

- A. Highly echogenic material creating 'snowstorm' appearance on ultrasound.
- B. Dense calcifications in the scrotum.
- C. Meconium peritonitis results from prenatal intestinal perforation nearly always involving the large bowel.
- D. On plain films, calcifications are amorphous and irregular.

5. Which of the following statements is false?

- A. The use of a standard breast phantom for entrance dose estimation does not reflect the true skin dose for larger or smaller breasts.
- B. A well-defined square root relationship that exists between SAL and AGD is dependent on the kilovoltage used.
- C. In computed radiography, the displayed image density is automatically adjusted by system image processing and is dependent on the applied dose.
- D. In conventional radiography, the amount of exposure is directly related to the average optical density whilst in computed radiography it determines the signal-to-noise ratio.

6. Identify the correct statement in the following choices.

- A. Protein-losing enteropathy is defined as a condition in which excess protein loss into the gastrointestinal lumen is severe enough to produce hypoproteinaemia.
- B. There are no benefits in using a Tc-99m labelled tracer.
- C. Peutz Jeghers syndrome is not associated with protein-losing gastroenteropathy.
- D. Faecal clearance of alpha 1-antitrypsin is an expensive and unreliable test of protein-losing enteropathy.

7. Regarding Conn's syndrome, all the following is false except:

- A. Conn's syndrome is a common entity among hypertensive patients.
- B. Adrenal adenomas are usually 3 cm or less in size.
- C. For adenomas measuring close to 1 cm or more, MRI is the modality of choice.
- D. The disease is more common in males who present between the third and sixth decades of life.

8. Identify the false statement among the following:

- A. Cholesteatomas are non-neoplastic but destructive lesions containing layers of keratin in a cavity lined by squamous epithelium.
- B. They occur mainly in the middle ear cleft but have also been reported intracranially and in the external auditory canal.
- C. Traumatic cholesteatomas occur as a complication with different types of injury to the temporal bone.
- D. The time interval between injury

and diagnosis of post-traumatic cholesteatomas is approximately 3 months.

9. Regarding PET-CT, identify a single false statement:

- A. PET has the ability to demonstrate abnormal metabolic activity (at the molecular level) in organs that as yet do not show an abnormal appearance based on morphologic criteria.
- B. PET-CT scanners are applied in imaging in which precisely co-registered functional and anatomic images are obtained by performing a PET study and a CT study on different scanners without moving the patient.
- C. FDG is a radiopharmaceutical analog of glucose that is taken up by metabolically active tumour cells using facilitated transport similar to that used by glucose.
- D. PET is based on the detection of annihilation photons released when radionuclides, such as F-18, C-11 and O-15, emit positrons (β^+) that undergo annihilation with electrons.

10. If you cannot answer question 9:

- A. Phone a friend.
- B. Phone George Bush.
- C. Don't worry, Worldcup 2010 is more important.
- D. Read the next issue of SAJR.

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