

CPD QUESTIONNAIRE

Give ONE correct answer for each question.

1. Regarding MRI arthrography, choose one false answer.

- A. Arthrographic MRI of the shoulder is known to increase diagnostic accuracy compared with conventional MRI.
- B. MRI arthrography is the most sensitive technique in the detection of shoulder joint abnormalities.
- C. MRI arthrography changes conventional MRI into a minimally invasive examination.
- D. By using real-time ultrasound, the procedure is not only quicker but, unlike the case of fluoroscopically-guided arthrography, there is no ionising radiation. Administration of radio-opaque contrast medium is recommended.

2. Which of the following statements associated with MRI arthrography is false?

- A. The technique of arthroscopy generally follows the posterior route.
- B. The path lies between the infraspinatus muscle and the teres minor muscle, with the point of entry 1 cm inferior and 2 cm medial to the posterior angle of the acromion.
- C. A potential risk is contact with the suprascapular nerve and the circumflex scapular vessels.
- D. If an entry point inferior to the teres minor muscle (through the quadrangular space) is used, other potential risks are contact with the axillary nerve and the posterior humeral circumflex artery.

3. Which of the following statements is false?

- A. Hyperparathyroidism is a term used to describe the consequences of excessive secretion of parathyroid hormone (PTH), due to either primary disease of the parathyroid gland or secondary to renal disease.
- B. Primary hyperparathyroidism is usually due to a single parathyroid adenoma. Occasionally there may be multiple adenomas. Malignant transformation does not occur.
- C. Parathyroid glands are usually 4 in number, each measuring 5 mm in diameter. The 2 superior glands tend to be posterior, and the 2 inferior ones, anterior.
- D. The inferior glands are supplied by the inferior thyroidal artery and the superior glands by the superior thyroidal artery.

4. Which of the following ultrasound findings signs is not associated with parathyroid adenoma?

- A. An abnormal gland as it enlarges appears as a hypo-echoic, often anechoic, lesion, often posterior in location to the thyroid.
- B. As the gland enlarges, it can develop lobularity and foci of echogenicity.
- C. Parathyroid glands of at least 1 cm have vascularity by Colour Doppler or Power Doppler characterised by high resistance waveforms on spectral analysis.
- D. An extrathyroidal artery that feeds the parathyroid adenoma is commonly noted by sonography with both Colour and Power Doppler, and its visualisation helps in the parathyroid delineation.

5. Which of the following statements is false?

- A. Benign strictures are said to occur in up to 11% of ulcerative colitis cases.
- B. Long-standing UC does not only affect the mucosa. In the chronic phase, wall thickening, marked loss of haustration and colonic shortening can also occur.
- C. Fibrosis is dominant and accounts for most cases of stricturing.
- D. Stricturing is mostly the result of hypertrophy and thickening of the muscularis mucosa.

6. Identify the correct statement from the following choices. The associated MRI features of schizencephaly include all the following, except:

- A. absent cavum septum pellucidum (80 - 90 %)
- B. focally thin or absent corpus callosum
- C. polymicrogyria and heterotopias
- D. tenting of the ventricle, pointing away from the defect.

7. The following is true about PET/CT except:

- A. The introduction of F-18 FDG PET/CT renders information on both morphology and metabolism.
- B. Size criteria to classify lymph nodes as normal or pathological remains acceptable in clinical practice.
- C. PET-CT expected to provide the clinician with accurate information for response assessment in lymphoma, possibly leading to major changes in the treatment and prognosis.
- D. The physical principle in PET/CT relates directly to Einstein's formula $E=mc^2$.

8. Identify the false statement among the following:

- A. Positron emission tomography (PET) uses the glucose analogue F-18 FDG.
- B. PET/CT was first introduced in the late 1970s.
- C. International sentiments express the 'unparalleled contribution of F-18 FDG PET to medicine over 3 decades'.
- D. Potential users of PET/CT in South Africa have established an ideal working relationship to ensure financial viability and access to all.

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. Precisely co-registered functional and anatomical images are obtained by performing a PET study and a CT study on the same scanner without moving the patient.
- C. FDG is a radiopharmaceutical analogue of glucose that is taken up metabolically by active tumour cells using facilitated transport unlike those used by glucose.
- D. Like glucose, it undergoes phosphorylation to form FDG-6-phosphate; however, unlike glucose, it does not undergo further metabolism, thereby becoming trapped in metabolically active cells.

10. The approximate price of a PET/CT scan is:

- A. 10 000 000 000 000 000 000 000 000 0000 Zim Dollars
- B. When (if) Wall Street opens tomorrow: \$US100 000
- C. Icelandic Krona: ∞ [currency effectively no longer exists]
- D. R12 000 in South Africa

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