CPD QUESTIONNAIRE

Give ONE correct answer for each question.

1. Regarding screening and diagnostic mammography, choose one false answer.

A. Presence of microcalcifications is an important marker for ductal carcinoma *in situ* (DCIS).
B. In screening mammography, a palpable mass may not be present and as many as 30 - 50% of non-palpable breast cancers present themselves as clusters of microcalcifications alone.
C. It is important to develop good radiological and histopathological correlation.
D. Depending on the radiological appearance on mammography and ultrasound, patients do not require further evaluation.

2. Which of the following statements is false?

A. According to BI-RADS, the calcification patterns suggestive of malignancy are heterogeneous or pleomorphic, amorphic or indistinct, fine linear and/or branching types.
B. A study by Gulsun *et al.* compared the positive predictive value (PPV) of using LeGal's classification and the BI-RADS classification in terms of identification of malignancy and concluded that both succeed in reducing the ambiguity in assessment of breast calcifications and they are useful in standardisation of reports.
C. Atypical ductal hyperplasia (ADH), lobular carcinoma in situ (LCIS) and atypical lobular hyperplasia (ALH) may also present with calcifications which may exhibit high density, clustered punctuate calcification and tend to lack the characteristic features of DCIS such as rod shapes, ductal distribution and branching.
D. DCIS can present as a stellate mass without calcifications.

3. Which of the following statements is false?

A. Diffuse signal changes in the liver on MRI often represent a depositional process.
B. The signal is decreased when iron is deposited or increased with copper or fatty deposition.
C. Diffuse signal change is often incidental when imaging is done to identify a cause for other symptoms or to assess for complications of primary pathology.
D. In patients who receive multiple blood transfusions, the excess iron is initially deposited in the reticuloendothelial system of the liver, spleen and bone marrow as well as the heart and endocrine system.

4. Which of the following statements regarding ultrasound of appendicitis is true?

A. Ultrasound evaluation of appendicitis was first described by Puylaert in 1968.
B. In a meta-analysis conducted between 1986 and 1994, Orr et al. reported a sensitivity of 95% and a specificity of 82% among adult and paediatric populations.
C. Sonography has the advantage of being quick to perform without any need for patient preparation.
D. Ultrasound of the appendix is not operator dependent and the appendix is readily visualised.

5. Which of the following statements regarding CT of the appendix is false?

A. CT scanning has emerged as a valuable resource in the imaging of appendicitis.
B. This modality has the advantage of improved rates of visualisation of the appendix and surrounding structures, as well as more accurate evaluation of the rest of the abdomen.
C. The ionising radiation dose delivered is negligible.
D. It allows more confident detection of a normal appendix, thus excluding appendicitis as a cause of symptoms.

6. Identify the false statement in the following choices.

A. Peripancreatic pseudo-aneurysms in patients with chronic pancreatitis are an uncommon but serious complication.
B. Mortality rates can reach 40%, depending on the clinical status, site and characteristics of the bleeding lesion, and the surgical management.
C. Arterial lesions related to pancreatitis are predominantly localised in the splenic artery, the pancreaticoduodenal arteries and the gastroduodenal artery.
D. The pathogenesis of pseudo-aneurysms in pancreatitis is due to the proteolytic action of the pancreatic enzymes in the pseudocyst, mainly lipase, in direct contact with the visceral artery.

7. The following is true about ductal carcinoma *in situ* (DCIS), excepting:

A. DCIS may present with multifocal or multicentric disease.
B. The above implies that all visible lesions should be biopsied.
C. Comprehensive baseline mammography is indicated in young patients with breast disease so that abnormal calcification patterns are not missed.
D. In patients under the age of 40, ultrasound is still the investigation of choice, but a single baseline medio-lateral oblique mammogram view of the affected breast should be performed to exclude any abnormal calcification patterns as this may be missed on ultrasound.

See previous page for CPD instructions.

8. Identify the false statement among the following. Features that are important when evaluating calcifications are:

A. Form i.e. are they round, oval or linear in shape, or do they have no specific shape (amorphic).
B. Sizes of the microcalcifications i.e. are they large calcifications or small punctuate calcifications and do they demonstrate homogenous or heterogeneous size.
C. Distribution i.e. are they clustered together or sporadic or are they distributed in a particular pattern e.g. in a breast segment or along a duct.
D. Margin – calcifications with regular margins are more likely to be malignant.

9. Regarding pseudo-aneurysm of the gastroduodenal artery, identify the one false statement.

A. In chronic pancreatitis, several factors may increase the risk of acute bleeding, such as duration of disease, proximity of a vessel to a pseudocyst, communication with the biliary or pancreatic ducts, and splenic vein occlusion due to thrombosis.
B. In the diagnostic workup, invasive diagnostic procedures are the priority; ultrasonography with colour Doppler is a second choice.
C. The pseudo-aneurysm size, presence of thrombus, and pseudo-aneurysm topography could often be well defined by non-invasive procedures.
D. Catheter angiography remains important in the visualisation of the exact gastroduodenal artery pathology measurement of artery width and presence of arteriovenous fistula. It is an invasive procedure, but can also allow treatment of the pseudoaneurysm at the same time.

10. Identify one false statement.

A. The Medical Imaging Society of South Africa (MISA) and member companies Siemens Healthcare, GE Healthcare, Philips Medical Systems and AEC Amersham have announced a sponsorship of R20 000.
B. The sponsorship will be applied in the form of a refund of R1 000 to each of up to 20 registrars who incur long-distance travel and accommodation expenses in attending RSSA congresses and workshops.
C. The terms of the sponsorship are that the first 20 registrars who register and pay their registration fees by the 'early bird' deadline will receive a refund of R1 000 after the course ends.
D. Awarding the sponsorships depends on the course location and where the participants come from. For the congress in Sandton, for example, Gauteng registrars will be included. This is to ensure that recipients are those who have to pay for their spouses, children or girlfriends.