

CPD QUESTIONNAIRE

Give ONE correct answer for each question.

1. Which of the following statements is false?

- A. Dural sac endings range from the lower third of L5 to the lower third of S3.
- B. The dural sac most commonly terminates at the middle third of the S2 vertebra.
- C. There is no association between age and the level of dural sac termination.
- D. There is a significant statistical difference in the dural sac termination between male and female subjects.

2. Which of the following statements is false?

- A. The position of the dural sac ending is of great consequence for craniospinal irradiation.
- B. Most oncology centres extend the craniospinal irradiation field to the lower border of S2. This is adequate as fewer than 1% of dural sacs extend below this level.
- C. During craniospinal irradiation, the entire neuro-axis should be covered by ensuring that the dural sac is included in the spinal field.
- D. Certain patients would remain undertreated if the lower border of the craniospinal irradiation field were placed at the inferior border of S2.

3. Which of the following statements is false?

- A. CT detects mediastinal, airway and lung abnormalities with high accuracy, sensitivity and specificity.
- B. In patients with airway compression, the advantage of CT over bronchoscopy is limited.
- C. The introduction of MDCT scanners has made it possible to acquire high-resolution images of the upper, central and segmental airways within a short acquisition time.
- D. Chest CT is an indispensable tool for identifying airway stenoses caused by TB lymphadenopathy.

4. Which of the following statements is true?

- A. Only axial CT images are accurate in detecting airway stenoses.
- B. There is a significant statistical difference between axial measurements and measurements taken after MPR.
- C. Although axial CT images are sufficient for evaluating most airway abnormalities, there are inherent limitations of axial sections for assessing the airways:
 - limited ability to detect subtle airway stenoses
 - underestimation of the craniocaudal extent of the disease
 - difficulty in displaying the complex 3-D relationships of the airway to adjacent mediastinal structures
 - inadequate representation of airways oriented obliquely to the axial plane
 - difficulty in assessing the interfaces and surfaces of airways that lie parallel to the axial plane.
- D. Central airway stenoses are difficult to detect and are significantly overestimated.

5. Which of the following statements is false?

- A. Measurements taken in lung windows consistently measure the diameter of stenoses of the central airways less than soft tissue (1.4 mm on average).
- B. The wide window and low-level setting of lung window should make it the desired setting for evaluating the air-filled airways. It is therefore more likely that soft tissue underestimates stenoses.
- C. Currently, a coarse parameter of 20% luminal obstruction of a main stem or lobar bronchus is considered a significant clinical indicator for management of children with airway obstruction.
- D. The degree of central airway stenoses is accurately assessed on axial images, obviating the need to perform MPR to obtain a true axial diameter of the airways in children.

6. Identify the false statement among the following.

- A. Sjögrens syndrome is an auto-immune disease affecting the lacrimal and all salivary glands, but predominantly the parotid glands.
- B. Initial periductal lymphocyte aggregates extend into, and finally destroy, salivary acinar parenchyma, which leads to small cystic spaces beginning peripherally in the gland.
- C. As acinar destruction progresses, salivary production decreases and ascending infections develop, eventually leading to sialectasis developing in the gland, enlargement of the microcysts and fatty replacement of the destroyed acinar within the salivary gland parenchyma.
- D. Xerostomia (dryness of the mouth) is an infrequent oral symptom.

7. The following are true, except for:

- A. MR sialography is an excellent example of the technique of MR hydrography, using extremely long TR and TE times to highlight fluid and suppress other surrounding tissue signals.
- B. Hydrography is more commonly applied in other areas of the body, such as creating MR myelograms in the cervical and lumbar spine, MR cholangiopancreatograms of the biliary system, and MR renograms of the urinary tract.
- C. A T2W fat-suppression sequence should have the TE increased from the usual 60 ms to 100 - 120 ms.
- D. In the case of parotid glands, cystic structures may not stand out clearly from the normal parenchyma, which itself is fluid-rich. A more T2-weighted series is required to highlight the cystic changes in the gland.

8. Identify the false statement among the following.

- A. Thalassemia (the Greek etymon literally means 'anaemia of the sea') occurs in a broad geographical band from the Mediterranean through to Asia.
- B. The cause is an inherited defect in the synthesis of one of the alpha or beta globin chains. Homozygous (major) or heterozygous (minor) forms of the condition exist.
- C. Defective globin chains lead to excessive haemolysis and compensatory haematopoiesis within bone marrow, which in turn leads to enlargement of the medullary cavities and thinning of cortices.
- D. In the spine, extramedullary haematopoiesis is most commonly located in the lower thoracic and upper lumbar regions.

9. Regarding syrenomelia, identify a single false statement.

- A. The embryological and pathological causes of the condition occur before the 4th week to the structures derived from the caudal mesodermal axis of the embryo, extended to various cranio-caudal levels.
- B. Although syrenomelia has been described as a rare lethal pattern of congenital anomalies, 9 mermaid cases surviving after reconstructive surgery have been reported. The most important characteristic that seems to allow survival of the affected individuals is the presence of a functional bladder.
- C. Various teratogenic agents, maternal diabetes, caudal regression syndrome and nutritional deficit have been suggested as possible aetiological factors.
- D. It was previously thought that caudal regression syndrome and syrenomelia were manifestations of the same syndrome, but it seems that syrenomelia is the result of vascular steal phenomenon that causes severe ischaemia of the caudal portion of the fetus.

10. Identify the false statement among the following.

- A. Mermaids or sirens have been part of the cultural tradition of sailors since the earliest maritime expeditions in the Western world.
- B. The siren myth was recorded for the first time by Homer, who described in the Odyssey alluring singing creatures that lured sailors to their death.
- C. Historical texts of around 2 500 BC found in several European countries include references to female hybrids. It can be assumed that these creatures were probably individuals affected by syrenomelia, which is a rare and mostly lethal congenital anomaly characterised by rotation and fusion of the lower extremity with medial position, fusion or absence of the fibulas, and abnormalities of the lumbar and sacral spines.
- D. Most ancient mariners preferred maidmers over mermaids (fish and female anatomy inversely proportional).

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