Self-assessment questions

(Select the best response to each question)

1. A 56-year old heavy smoker for over 20 years presents with a history of chronic cough, yellowish-green sputum and loss of weight for 4 weeks. He brings a “Health Check” blood report from a medical laboratory with several biochemical and haematological test results. His serum calcium is 2.87 mmol/l (reference range 2.20-2.26). The most likely cause of his hypercalcaemia is
   a. primary hyperparathyroidism
   b. thyrotoxicosis
   c. bronchial carcinoma
   d. sarcoidosis with lung involvement
   e. lymphoma

2. A 40-year old woman with truncal obesity, plethoric facies and a blood pressure of 165/98 mm Hg is suspected to have Cushing syndrome. Which one of the following features will favour a diagnosis of a pituitary adenoma rather than a paraneoplastic syndrome?
   a. A serum sodium of 148 mmol/l (reference range 135-145)
   b. Dexamethasone suppression test positive for cortisol suppression
   c. Marked metabolic alkalaemia with serum potassium 2.9 mmol/l (reference range 3.5-5.0)
   d. Severe proximal myopathy
   e. Onset of symptoms and signs in 3 months

3. A 40-year old man is admitted to hospital with a complaint of proximal muscle weakness and occasional episodes of diplopia for 4 weeks. The initial impression is myasthenia gravis, but he had no xray and CT scan evidence of thymoma or thymic hyperplasia. He is referred to a neurology unit for specialist review. Which of the following features will most strongly favour a diagnosis of Lambert-Eaton myasthenic syndrome?
   a. Partial bilateral ptosis
   b. Transient weakness of left lateral rectus and right medical rectus muscles
   c. Biochemical hypothyroidism with goitre
   d. Detection of antibodies against voltage-gated calcium channels (anti-VGCC) in serum
   e. Detection of acetylcholine receptor antibodies (anti-AChR) in serum

4. Which one of the following non-metastatic skin manifestations of malignancy does not usually spare the palms or soles?
   a. Acquired ichthyosis
   b. Acquired hypertrichosis lanuginosa
   c. Laser-Trélat sign
   d. Acanthosis nigricans
   e. Migratory thrombophlebitis

Answers to self-assessment questions

Q1. Correct answer, c. Given the history, a,b,d and e are much less likely causes of hypocalcaemia
Q2. Correct answer, b. Cushing syndrome of paraneoplastic origin develops more rapidly and is characterised by severe myopathy, alkalaemia and hypokalaemia
Q3. The cardinal features that distinguish LEMS from myasthenia gravis include anti-VGCC positivity, absent tendon reflexes and muscle weakness that improves with repetitive use, and absence of thymic tumour or hyperplasia. Correct answer, d.
Q4. Correct answer is acanthosis nigricans, d.

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