

## Medical Quiz: SBA – Answers

### Question No. 1: Correct Answer – B

Phaeochromocytoma is a rare malignancy of the sympathetic nervous system. In 90 per cent the tumor occurs in the adrenal gland. Clinical features are secondary to the action of excess catecholamine release, which is usually at random. Symptoms include hypertension, sweating, panic attacks, tremor and flushing among many others. Cluster headache is a neurovascular abnormality due to unclear mechanisms possibly involving histamine. Patients suffer severe headaches often localized unilaterally to the periorbital area and temple. Pain can last from a few minutes to a few hours with associated lacrimation on the side of the headache, nasal congestion and eye-lid edema. Subarachnoid hemorrhage characteristically presents as a sudden, extremely severe headache, often called a thunderclap headache along with nausea, vomiting and in severe cases a confused state or even coma. Migraine defines a recurrent headache that often occurs with prodromal auras involving visual, gastrointestinal or neurological symptoms, such as paraesthesia, nausea and irritability. Hypertension is not usually an associated feature. Temporal arteritis or giant cell arteritis is an inflammatory granulomatous disease affecting the large cerebral arteries. Patients in virtually all cases are over 50 years old, symptoms include severe headaches, scalp and skull tenderness and in severe cases temporary or permanent loss of vision in one eye due to ophthalmic artery involvement can occur.

### Question No. 2: Correct Answer - B

Although rare, warfarin has been reported to cause hair loss coupled with other anticoagulants such as heparin. Other drugs include cytotoxic drugs (e.g. cyclophosphamide, mercaptopurine derivatives, adriamycin, vinca alkaloids), anti-hyperthyroidism drugs (e.g. thiouracil, carbimazole), anti-tuberculosis drug ethionamide and large doses of vitamin A (and synthetic retinoids) have been reported to cause generalized diffuse alopecia.

### Question No. 3: Correct Answer - A

The majority of tubulointerstitial nephritis is due to drug hypersensitivity reactions, most commonly penicillin or non-steroidal anti-inflammatory drugs. Patients typically present with fever, skin rashes and may also have painful joints. Blood results will often have raised eosinophils. Renal failure is the sudden loss of renal function which

in the acute phase is reversible, plasma urea and creatinine typically increase due to the loss of filtering function of the kidney and patients tend to be oliguric rather than polyuric. In diabetes, although patients would tend to visit the toilet more due to hyperglycemia causing an osmotic diuresis, other important features would include weight loss, polydipsia and the presence of glucose and possibly ketones on urine dipstick. A UTI is characterized by features that include dysuria, elevated white cell count and raised leukocytes and nitrites in the urine. Reiter's disease is a sterile synovitis that typically follows an infection and involves the classical triad of urethritis, arthritis and conjunctivitis.

### Question No. 4: Correct Answer - B

Iron deficiency can be an important cause of anemia in patients. In this case vitamin B12 and folic acid are less likely to be important given the patient's diet, however tea is alkaline and reduces the body's ability to effectively absorb iron. Measuring the patient's serum ferritin provides an accurate reflection of the body's iron stores since the serum ferritin originates from the storage pools in the bone marrow, spleen and liver. The serum transferrin level reflects the levels of protein that bind to iron and transports it around the body, hence not providing the most accurate level of iron. The serum iron level is a poor reflection of iron stores since this can change dependent on disease states. A bone marrow biopsy is a very sensitive test since iron staining reflects iron stores in macrophages. However, it is both expensive and invasive and therefore not the most appropriate test compared to serum ferritin.

### Question No. 5: Correct Answer - B

This patient is suffering from an acute episode of pericarditis, the change of symptoms with sitting position, lack of cardiovascular risk factors and pericardial rub deviate away from other differentials such as pleurisy and angina. The ECG is diagnostic in pericardial disease with classic saddle-shaped ST elevation indicating pericarditis. The ECG usually undergoes changes over time, beginning with ST elevation that evolves into T-wave flattening and then normalization. A CT calcium score is used in the prediction of coronary artery disease risk and is not appropriate here. Serum amylase may be useful if investigating pancreatitis. A chest x-ray may be useful if exploring differentials such as a pneumothorax, but alongside echocardiography is not useful for diagnosing pericarditis.