

## Medical Quiz: SBA – Answers

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

Oral flecainide is now widely recommended to avoid continuous therapy. Propafenone is used in a similar way. Digoxin is not effective in this situation; sotalol may be used but should be avoided because of this patient's asthma. Amiodarone is effective, but has numerous serious adverse reactions including pulmonary fibrosis, liver damage, peripheral neuropathy and abnormal thyroid function. Anticoagulation is very important to prevent strokes, although in low-risk patients aspirin may be adequate. In patients where drug therapy is ineffective or poorly tolerated, ablation therapy can have a high success rate.

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

Twenty to 30 per cent of patients diagnosed with PSC are more likely to develop cholangiocarcinoma, which is defined as a malignancy of the biliary tree. Hepatocellular carcinoma is a malignant tumor of hepatocytes and accounts for approximately 90 per cent of primary liver tumors. Hepatic fibroma and haemangiomas are benign liver tumors which do not usually require treatment. They are not related with PSC. Pancreatic carcinoma, although a possible answer, is unlikely here as patients with PSC do not have an increased chance of developing this condition.

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

This patient is mostly likely suffering from a renovascular disease which causes progressive narrowing of the renal vessels which, if not treated, can cause renal necrosis. This is further supported by the patient's cardiovascular risk factors alongside the presence of abdominal bruits which is strongly suggestive of renovascular compromise. Renal arteriography shows the exact location of an occlusion within the renal vasculature and remains the gold standard. CT angiography produces high resolution pictures but involves the exposure of radiation and is still not as sensitive as renal arteriography. An abdominal x-ray would not be able to reliably identify the position of the kidneys and is not appropriate to demonstrate abnormalities in the vasculature without more sophisticated methods such as contrast. An MRI arteriography of the kidney is useful in identifying the vascular stenosis. The sensitivity and specificity is dependent on the experience of individual centers. Although Doppler ultrasonography is the least invasive of the investigations listed, the sensitivity is less than MRI or CT scanning and direct visualization of a renal artery

stenosis is difficult to achieve. A renal biopsy is suitable for histological diagnosis and could be used to demonstrate any renal impairment that may have resulted from poor perfusion of the kidneys. It would not be helpful in identifying obstructions in the renal vasculature.

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

Pituitary apoplexy is characterized by a sudden headache, vomiting, visual disturbances and hormonal dysfunction. The cause is most commonly due to the abrupt growth of a pituitary adenoma or pituitary infarction. The presentation can be unilateral or generalized. Visual defects are most commonly of the superior quadrant bitemporally. Visual disturbances, such as loss of vision and ophthalmoplegia affecting cranial nerves III, IV and VI, help differentiate apoplexy from other intracranial pathology. Kallman syndrome is characterized by gonadotrophin deficiency and congenital anosmia. Septo-optic dysplasia is a congenital disorder characterized by the triad of optic nerve hypoplasia, hypopituitarism and forebrain abnormalities. The empty sella syndrome is the observation of absent pituitary tissue within the sella turcica observed on imaging, however pituitary function is normal due to ectopic or unusual position of pituitary tissue within the sella fossa. Sheehan syndrome is also called postpartum hypopituitarism and is most commonly a rare complication of pregnancy. Patient's present with agalactorrhoea, amenorrhoea and hypothyroidism after pregnancy.

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

This patient is most likely suffering from an opiate overdose which is treated by an opiate antagonist such as naloxone. The characteristic features of opiate use include pinpoint pupils, respiratory depression and a comatose state. Methadone is a partial opioid antagonist and, although useful in weaning patients off drugs such as heroin, it would only act to exacerbate the patient's symptoms, especially in this case given its relatively long half-life. Since the patient is able to maintain a respiratory effort, mechanical ventilation would not be necessary. IV naltrexone is another opioid antagonist which has a longer half-life than naloxone and so is less often used in an emergency situation and more for long-term dependency control. Naloxazone is an irreversible opioid receptor antagonist and so is not appropriate in an emergency situation since this requires short-term reversal so that more controlled weaning can be started.