

Adrenal pastest

1. You are called to a psychiatric unit to see an 18-year-old woman with anorexia nervosa. She has been admitted for refeeding. She has a BMI of 13.4kg/m². She has not had a period in 1 year. What would you expect to see in the results of her biochemical investigations?

- A. Raised Levels of luteinising hormone (LH) and follicle-stimulating hormone (FSH)
- B. Elevated circulating cortisol
- C. Low resting growth hormone Levels
- D. Increased levels of gonadotropin-releasing hormone (GnRH)
- E. Normal oestrogen levels

The correct answer is B

These have been shown to be elevated in anorexia. They can also be normal.

2. A 42-year-old woman is diagnosed with pheochromocytoma. Screening with pentagastrin testing suggests that she has medullary thyroid carcinoma, and you plan a thyroidectomy. What antihypertensive medication should be started before surgery for a patient with pheochromocytoma?

- A. Phenoxybenzamine
- B. Atenolol
- C. Labetalol
- D. Ramipril
- E. Doxazosin

The correct answer is A

Phenoxybenzamine is a more potent α -blocker than doxazosin and is the recommended choice for initial antihypertensive medication in pheochromocytoma where surgery is contemplated.

It should be given in divided doses, at 20 mg initially, increasing to 80 mg. Patients should then be considered for additional β -blockade with propranolol, again in divided doses up to 240 mg/day.

Always start with α -blockade first. as initial use of β -blockers can worsen hypertension. Labetalol is not recommended.

An experienced surgeon and anaesthetist are crucial for this operation.

3. A 35-year-old man is diagnosed with pheochromocytoma after being admitted to the Emergency department with severe headaches and worsening blood pressure control. On examination his IBP is 185/95 mmHg, despite taking Ramipril 10mg daily. Creatinine is recorded at 135 micromol/l. He is Listed for surgery.

Which of the following is the most appropriate intervention with respect to achieving blood pressure control?

- A. Amlodipine
- B. Atenolol
- C. Doxazosin
- D. Hydrochlorothiazide
- E. Phenoxybenzamine

The correct answer is E

Full alpha blockade is crucial before surgery to remove a pheochromocytoma is attempted. Phenoxybenzamine is the agent of choice and should be started at least 7-10 days before surgery.

4. A 32-year-old woman presents to her GP with extreme lethargy 6 weeks after the birth of her third child. Her pregnancy was uneventful, but she has a history of hypothyroidism and post-partum depression. She complains of fatigue, nausea and dizziness, along with symptoms of a urinary tract infection (UTI). The GP prescribes antibiotics: however, 3 days later she is brought to the Emergency Department via ambulance after collapsing at home. She is found to have a blood pressure of 80/52 mmHg, a Na⁺ concentration of 127 mmol/l, a K⁺ concentration of 5.9 mmol/l and a urea of 12 mmol/l. You note increased skin pigmentation.

What is the likely diagnosis?

- A. Sheehan syndrome
- B. Prolactinoma
- C. Addison's disease
- D. Postnatal depression
- E. Thyrotoxicosis

The correct answer is C

She has evidence of primary hypoadrenalism. Her hypotension, hyponatremia and hyperkalemia are suggestive of both glucocorticoid and mineralocorticoid deficiency.

Secondary adrenal insufficiency from a central cause (ie in Sheehan syndrome) would not cause hyperkalemia as aldosterone production is intact.

Other clues to the diagnosis are the intercurrent illness (UTI), which has caused the Addisonian crisis, and her history of autoimmune hypothyroidism.