

## Answers to Endocrinology Quiz

1.

- a) Hyperthyroidism due to Graves disease complicated with severe orbitopathy (*Picture a*), acropachy (*Picture b*) and pretibial myxedema (*Picture c*).
- b) Thionamides (Carbimazole) and beta blockers (propranolol), provided there are no contraindications.
- c) Intravenous steroid therapy and urgent referral for ophthalmological assessment.
- d) Thyroidectomy. Radioactive iodine treatment is a contraindication in the presence of severe Graves orbitopathy.

2.

- a) Prolactinoma.
- b) Commencement of dopamine agonist (cabergoline). Tumor shrinkage will begin as fast as 24 hours and will result in improvement of visual field defects. Cabergoline will also normalize gonadal functions and galactorrhea. Patients should be advised on contraception as dopamine agonists will bring back periods and fertility.
- c) As she is quite young, screening for Multiple Endocrine Neoplasia 1 (MEN1) which constitutes primary hyperparathyroidism due to parathyroid hyperplasia, anterior pituitary adenoma and pancreatic neuroendocrine tumors.

3.

- a) History of use of steroids (oral, local, inhalational, injections, ayurvedic medication).
- b) Abdominal striae (purple striae >1cm), thin skin over dorsum of hand, bruises, proximal muscle weakness, facial plethora are the more specific clinical features of Cushing's syndrome.
- c) Overnight dexamethasone suppression test, low dose dexamethasone suppression test, 24 hr urine collection for cortisol are the screening tests for Cushing's syndrome. It is important to rule out iatrogenic steroids prior to arranging these tests. If two tests become positive Cushing's syndrome can be confirmed.
- d) Serum ACTH levels are done next to decide if Cushing's syndrome is ACTH dependent or not.

4.

- a) Initial tests will include full blood count, fasting blood sugar, liver, renal, bone profiles and pituitary hormonal profile (serum IGF-1 levels, testosterone, prolactin, FSH, LH, TSH FT4, 9 am cortisol).
- b) Hypopituitarism.
- c) Biochemical test – Insulin tolerance test if there are no contraindications in order to assess growth hormone reserves and cortisol reserves.  
Radiological test – MRI scan of pituitary to rule out a tumor causing hypopituitarism.
- d) Replacement of growth hormone and testosterone and any other hormonal deficit depending on biochemical testing.

• **Permission to publish personal details of all patients has been obtained from each patient.**