A 36-year-old man presented with palpitations, sweating, tearing of eyes and double vision. His pulse rate was 110 bpm and regular. Thyroid function tests revealed TSH <0.01 mU/L (0.3-5.5) and FT4 6 ng/dl (0.8-1.6).

1. A 36-year-old man presented with palpitations, sweating, tearing of eyes and double vision. His pulse rate was 110 bpm and regular. Thyroid function tests revealed TSH <0.01 mU/L (0.3-5.5) and FT4 6 ng/dl (0.8-1.6).

1. A 36-year-old man presented with palpitations, sweating, tearing of eyes and double vision. His pulse rate was 110 bpm and regular. Thyroid function tests revealed TSH <0.01 mU/L (0.3-5.5) and FT4 6 ng/dl (0.8-1.6).

a) What is the complete diagnosis?

b) What treatment would you commence?

c) What urgent action would you take considering his eye symptoms?

d) What form of definitive treatment would he require in case of future relapse?
2. A 20-year-old woman presented with galactorrhea, secondary amenorrhea and headache. She was not on any other medication. On examination she had bitemporal hemianopia. Investigations revealed prolactin 6500 mU/L (60-620), FSH 1.0 U/L (2.5-10.2), LH 1.0 (1.9-12.5), 9 AM serum cortisol 230 nmol/l (180-620), FT4 1.0 ng/dl (0.8-1.6), TSH 0.5 mU/L (0.35-5.5). MRI scan of the pituitary is shown.

Figure a – Contrast enhanced MRI scan of pituitary (coronal section)  
Figure b – Contrast enhanced MRI scan of pituitary (sagittal section)

a) What is the diagnosis?
b) How would you manage her?
c) Considering her age, what other disease would you screen for?

3. This 23-year-old man presented with increase in weight and change in appearance over 1 year.

Figure a – Photograph of the patient

a) What important aspect in the history would you want to elicit?
b) What features would you look for in the clinical examination to support your clinical suspicion?
c) What initial test would you perform to confirm your suspicion?
d) If these initial tests become positive what other tests you would arrange?
4. This 19-year-old boy has short stature and absent secondary sexual characteristics. He was otherwise well. X-ray of non-dominant hand (Figure c) showed a bone age of 12 years.

- Figure a
- Figure b – Growth chart
- Figure c – X-ray of hand for bone age

a) What initial tests would you perform?
b) What is the most likely diagnosis?
c) List an essential biochemical and radiological test you would do before starting treatment?
d) How would you treat this patient?

(Answers on page 48)