

# Endocrinology

- 1) A 76 year old man from a nursing home is brought into the emergency department after staff notice a decreased level of consciousness. He has Type II diabetes mellitus and is diagnosed with hyperosmolar state. All of the following may be features of hyperosmolar state EXCEPT:
  - a) Hyponatremia
  - b) Positive ketones on urine dipstick
  - c) Positive glucose on urine dipstick
  - d) Elevated blood glucose level
  - e) History of decreased fluid intake
  
- 2) All of the following are complications of diabetes mellitus EXCEPT:
  - a) Retinal detachment
  - b) Gangrene in the feet
  - c) Calcification of cartilage
  - d) Abdominal bloating
  - e) Urinary retention
  
- 3) A 37 year old female is referred to you, an endocrinologist, because she is concerned about her weight. She is obese with a BMI of 35.2. On her last physical, her family doctor found her LDL level to be extremely elevated. Her only medications are acetaminophen PRN for headache and quetiapine, which she has been taking for the past several years for anxiety and to help her sleep at night. As you chat with her, you learn she has never married and never had any children. In fact, she admits to having few social supports. Apparently, she has had poor self esteem since she was young because of unwanted hair growth and obesity. She agrees that she uses food for comfort. Which of the following statements apply to this case?
  - a) She is at risk for osteoarthritis in the future
  - b) You should order gonadotropin levels in her
  - c) She should be referred to a dietician
  - d) She should be started on cholesterol lowering medications immediately
  - e) With such a high BMI, she should be initiated on orlistat (pancreatic lipase inhibitor) immediately
  
- 4) A patient complains of a non-tender mass over the thyroid region on the left side of her neck. Concerned about a thyroid disorder, you order the appropriate investigations. The results are as follows:

TSH: 6.0  
Free T4: 20.2  
Thyroid antibodies: none  
RAIU: No "hot" spots seen

The next investigation(s) you choose to do are:

  - a) Watch and wait for 3-6 months
  - b) FNA
  - c) Surgical biopsy
  - d) Trial of L-thyroxine therapy for 6 months
  - e) None of the above

- 5) An 8 year-old boy is brought to the office because his mother is concerned he is entering puberty already. You examine him and note the beginnings of facial hair, axillary hair and Tanner stage 2 external genitalia. Choose the set of investigations you initially want to do:
- CBC, lytes, testosterone, bone age, CT head
  - FSH, LH, testosterone, lytes, bone age, DHEA-S
  - FSH, LH, testosterone, cortisol, DHEA-S, 11-OH progesterone, bone age
  - Lytes, testosterone, DHEA-S, 17-OH progesterone, cortisol, bone age
- 6) In the course of DKA, serum potassium levels:
- Remain unaffected
  - Can appear normal but total body potassium may actually be low
  - Can appear normal but total body potassium may actually be high
  - Will naturally be corrected by insulin administration
  - None of the above
- 7) The “triple bolus” test of pituitary function works by a rapid succession of IV constituents as follows:
- insulin – hypoglycemia mediated rise in GH and ACTH  
GHRH – rise in LH and FSH  
TRH – rise in TSH and PRL
  - CRH – rise in GH and ACTH  
GHRH – rise in LH and FSH  
TRH – rise in TSH and PRL
  - estrogen – rise in LH, drop in FSH and PRL  
insulin – rise in GH and ACTH  
TRH – TSH
  - cortrosyn – rise in GH and ACTH  
GHRH – rise in LH and FSH  
TRH – rise in TSH and PRL
- 8) A 58 year-old man with a past history of a parathyroidectomy for primary hyperparathyroidism is now in your office complaining of headaches worse in the AM (made worse by a small MVA he credits to a loss of peripheral vision). You plan to:
- Send to the Emergency Department for an immediate CT head
  - Check his calcium to ensure there’s no remaining parathyroid tissue
  - Check for a pheochromocytoma (which you know causes H/As) because you are concerned he has MEN I syndrome
  - Check for a homonymous hemianopia because you are worried about a pituitary tumor
  - Check for a bitemporal hemianopia because you are worried about a pituitary tumour
- 9) In the treatment of Type I Diabetes, which of the following is true?
- Sulfonylureas are useful as an adjunctive therapy to insulin
  - Most patients are adequately controlled with one type of insulin (non-mixed) only
  - Once diagnosed with Type I, patients must immediately be assessed for retinopathy
  - During periods of illness or infection, patients may require additional insulin
  - The most common initial presentation is visual disturbance

- 10) In the diagnosis and treatment of dyslipidemia, which of the following is false?
- a) Men over age 40 and women over age 50 should be screened to obtain a fasting lipid profile
  - b) Treatment with a statin is the treatment of choice for patients with elevated LDL
  - c) Treatment with niacin or fibrate is the treatment of choice for patients with primarily elevated triglyceride level
  - d) Patients identified with dyslipidemia should all meet the target LDL < 2.5 mmol/L and target TC/LDL < 4.0
  - e) A baseline CK before the start of statin treatment should be obtained, and a patient complaining of myalgia and currently on a statin requires a repeat CK level

## **ANSWERS**

1. B  
2. C

3. E  
4. B

5. D  
6. D

7. D  
8. E

9. D  
10. D