

Chapter 46. Pituitary Gland Disorders, Self-Assessment Questions

1. All of the following complications are associated with prolonged exposure of elevated growth hormone (GH) and insulin-like growth factor-I (IGF-I) concentrations in patients with acromegaly *except*:

- A. Colon cancer
- B. Osteoarthritis
- C. Diabetes mellitus
- D. Coronary artery disease
- E. Urinary incontinence

2. A 42 year-old man with acromegaly underwent transsphenoidal pituitary surgery for his microadenoma 6 months ago but continues to require pharmacotherapy with lanreotide Autogel 120 mg every 4 weeks. After 4 months of treatment on lanreotide, the patient exhibits partial response to therapy. What is the *most appropriate* treatment regimen for the patient at this time?

- A. Continue lanreotide, start pegvisomant
- B. Discontinue lanreotide, start pegvisomant
- C. Continue lanreotide with radiation therapy
- D. Discontinue lanreotide, initiate radiation therapy
- E. Continue lanreotide, increase frequency of injections

3. A 43-year-old man with acromegaly presented with elevated IGF-I and GH concentrations. After experiencing intolerance to somatostatin analogs, lanreotide Autogel is discontinued and the patient is started on pegvisomant 10 mg daily. Which of the following is the most important parameter to monitor in this patient?

- A. Serum creatinine

- B. Growth hormone concentration
- C. Liver function tests
- D. Presence of gallstones
- E. Heart rate

4. Which of the following medication(s) will likely require dosage adjustment in a 36-year-old kidney transplant patient recently started on lanreotide for acromegaly?

- A. Cyclosporine
- B. Insulin detemir
- C. Lisinopril
- D. Cyclosporine, insulin detemir
- E. Cyclosporine, insulin detemir, lisinopril

5. All of the following drug/adverse reaction pair combinations are correct *except*:

- A. Bromocriptine: hypertension
- B. Cabergoline: dizziness
- C. Pegvisomant: abnormal liver enzymes
- D. Lanreotide: gallstone
- E. Recombinant GH therapy: peripheral edema

6. A 43-year-old man with history of hypothyroidism, diabetes, and stunted growth recently diagnosed with peak GH concentration of 3 ng/mL (3 µg/L; 136 pmol/L) after two GH stimulation tests. Which of the following clinical presenting signs or symptoms is (are) suggestive of growth hormone deficiency?

- A. Increased sweating
- B. Increased insulin sensitivity

- C. Increased energy and strength
- D. Decreased muscle mass
- E. Decreased sensitivity to heat and cold

7. Which one of the following pituitary gland disorder and clinical presentation pair combinations is *correct*?

- A. Acromegaly: infertility
- B. Acromegaly: oligomenorrhea
- C. GH deficiency: depression
- D. Hyperprolactinemia: enlarged hands
- E. Hyperprolactinemia: hypergonadism

8. Which one of the following is the *most appropriate* treatment goal for the management of hyperprolactinemia?

- A. Remove the pituitary gland since it is malfunctioning
- B. Reduce prolactin concentrations as much as possible
- C. Suppress gonadal function in males and females
- D. Restore normal fertility in males and females
- E. Treat osteoporosis since it is likely to occur

9. Which of the following is the *most appropriate* GH replacement dose to initiate in a 62-year-old woman with growth hormone deficiency and type 2 diabetes mellitus?

- A. 0.6 mg/day
- B. 0.5 mg/day
- C. 0.4 mg/day
- D. 0.3 mg/day

E. 0.2 mg/day

10. Which of the following GH deficient patients may require a higher initial GH replacement dose?

- A. 68-year-old man with normal renal function
- B. 11-year-old girl weight 30 kg
- C. 24-year-old woman taking oral contraceptives
- D. 45-year-old obese man with diabetes
- E. None of the above

11. All of the following are important to evaluate when a patient presents with elevated prolactin concentration of 30 mcg/mL (30 mcg/L; 1304 pmol/L), except:

- A. Stress level when taking prolactin measurement
- B. Use of dopamine antagonist medications
- C. Use of β -blocker medications
- D. Presence of chronic renal failure
- E. Presence of hypothyroidism

12. All of the following pharmacologic classes have been associated with drug-induced hyperprolactinemia *except*:

- A. Histamine₂ receptor antagonists
- B. Nucleoside reverse transcriptase inhibitors
- C. Protease inhibitors
- D. Progestins
- E. Estrogens

13. A 28-year-old woman with elevated prolactin concentration of 45 ng/ml (45 mcg/L; 1957 pmol/L) presents without any complaints and normal menstrual cycle. Which one of the following treatment options is the *most appropriate* first-line therapy for management of the patient's hyperprolactinemia?

- A. Clinical observation
- B. Bromocriptine
- C. Cabergoline
- D. Radiation therapy
- E. Transsphenoidal microsurgery

14. A 32-year-old woman presents with oligomenorrhea, weight gain, and excess hair growth. Diagnosis of hyperprolactinemia is confirmed with elevated prolactin concentration of 55 ng/mL (55 mcg/L; 2391 pmol/L). The patient and her husband have been trying to conceive for over a year without success. Which of the following treatment options is the *most appropriate* first-line therapy?

- A. Bromocriptine 0.625 mg at bedtime without birth control
- B. Cabergoline 0.5 mg once weekly with adequate birth control
- C. Clinical observation due to desire to conceive
- D. Radiation therapy due to desire to conceive
- E. Refer for transsphenoidal microsurgery

15. Which of the following is the preferred treatment for a 40-year-old woman diagnosed with both acromegaly and hyperprolactinemia?

- A. Cabergoline
- B. Bromocriptine

- C. Lanreotide
- D. Pegvisomant
- E. Radiation therapy

Answers

1. E

2. A

3. C

4. D

5. A

6. D

7. C

8. D

9. E

10. C

11. C

12. B

13. A

14. B

15. A