TEST BANK

Done by: Volunteer

Reviewed by:

Endocrine Systems

1. A 41-year-old woman has hypocalcemia, hyperphosphatemia, and decreased urinary phosphate excretion. Injection of parathyroid hormone (PTH) causes an increase in urinary cyclic adenosine monophosphate (cAMP). The most likely diagnosis is
(A) primary hyperparathyroidism
(B) vitamin D intoxication
(C) vitamin D deficiency
(D) hypoparathyroidism after thyroid surgery●
(E) pseudohypoparathyroidism

2. Which of the following hormones acts on its target tissues by a steroid hormone mechanism of action?
(A) Thyroid hormone●
(B) Parathyroid hormone (PTH)
(C) Antidiuretic hormone (ADH) on the collecting duct(D) β1-adrenergic agonists
(E) Glucagon

3. A 38-year-old man who has galactorrhea is found to have a prolactinoma. His physician treats him with bromocriptine, which eliminates thegalactorrhea. The basis for the therapeutic action of bromocriptine is that it
(A) antagonizes the action of prolactin on the breast
(B) enhances the action of prolactin on the breast
(C) inhibits prolactin release from the anterior pituitary●
(D) inhibits prolactin release from the hypothalamus
(E) enhances the action of dopamine on the anterior pituitary

4. Which of the following hormones originates in the anterior pituitary?
(A) Dopamine
(B) Growth hormone–releasing hormone (GHRH)
(C) Somatostatin
(D) Gonadotropin-releasing hormone (GnRH)
(E) Thyroid-stimulating hormone (TSH)●
(F) Oxytocin
(G) Testosterone

5. Which of the following substances is derived from proopiomelanocortin (POMC)?

(A) Adrenocorticotropic hormone (ACTH)●
(B) Follicle-stimulating hormone (FSH)
(C) Melatonin
(D) Cortisol
(E) Dehydroepiandrosterone

6. Which of the following inhibits the secretion of growth hormone by the anterior pituitary?

(A) Sleep
(B) Stress
(C) Puberty
(D) Somatomedins●
(E) Starvation
(F) Hypoglycemia

7. Which of the following explains the suppression of lactation during pregnancy?

(A) Blood prolactin levels are too low for milk production to occur
(B) Human placental lactogen levels are too low for milk production to occur
(C) The fetal adrenal gland does not produce sufficient estriol
(D) Blood levels of estrogen and progesterone are high●
(E) The maternal anterior pituitary is suppressed

8. Which of the following decreases the conversion of 25-hydroxycholecalciferol to 1,25-dihydroxycholecalciferol?

(A) A diet low in Ca2+
(B) Hypocalcemia
(C) Hyperparathyroidism
(D) Hypophosphatemia
(E) Chronic renal failure●

9. Which of the following would be expected in a patient with Graves disease?

(A) Cold sensitivity
(B) Weight gain
(C) Decreased O2 consumption
(D) Decreased cardiac output
(E) Drooping eyelids
(F) Atrophy of the thyroid gland
(G) Increased thyroid-stimulating hormone (TSH) levels
(H) Increased triiodothyronine (T3) levels●

10. Blood levels of which of the following substances is decreased in Graves disease?
(A) Triiodothyronine (T3)
(B) Thyroxine (T4)
(C) Diiodotyrosine (DIT)
(D) Thyroid-stimulating hormone (TSH)●
(E) Iodide (I−)

11. Secretion of oxytocin is increased by
(A) milk ejection
(B) dilation of the cervix●
(C) increased prolactin levels
(D) increased extracellular fluid

12. A 61-year-old woman with hyperthyroidism is treated with propylthiouracil. The drug reduces the synthesis of thyroid hormonesbecause it inhibits oxidation of
(A) triiodothyronine (T3)
(B) thyroxine (T4)
(C) diiodotyrosine (DIT)
(D) thyroid-stimulating hormone (TSH)
(E) iodide (I−) ●

13. Which of the following results from the action of parathyroid hormone (PTH) on the renal tubule?
(A) Inhibition of 1α-hydroxylase
(B) Stimulation of Ca2+reabsorption in the distal tubule●
(C) Stimulation of phosphate reabsorption in the proximal tubule
(D) Interaction with receptors on the luminal membrane of the proximal tubular cells
(E) Decreased urinary excretion of cyclic adenosine monophosphate (cAMP)

14. Which of the following pancreatic secretions has a receptor with foursubunits, two of which have tyrosine kinase activity?
(A) Insulin●
(B) Glucagon
(C) Somatostatin
(D) Pancreatic lipase

15-17A 76–year-old man with lung cancer is lethargic and excretinglarge volumes of urine. He is thirsty and drinks water almost constantly.Laboratory values reveal an elevated serum Ca2+ concentration of 18mg/dL, elevated serum osmolarity of 310 mOsm/L, and urine osmolarity of90 mOsm/L. Administration of an ADH analogue does not change hisserum or urine osmolarity.

15. The man's serum ADH level is
(A) decreased because excess water-drinking has suppressed ADH secretion
(B) decreased because his posterior pituitary is not secreting ADH
(C) normal
(D) increased because the elevated serum osmolarity has stimulated ADHsecretion●
(E) increased because his extreme thirst has directly stimulated ADH secretion

16. The cause of the patient's excess urine volume is
(A) dehydration
(B) syndrome of inappropriate ADH
(C) central diabetes insipidus(A) dehydration
(D) nephrogenic diabetes insipidus●

17. The most appropriate treatment is
(A) ADH antagonist
(B) ADH analogue
(C) PTH analogue
(D) half-normal saline
(E) pamidronate plus furosemide●