

Alterations of Hormonal Regulation

1. Identify and describe common causes of hypersecretion and hyposecretion of hormones: absence of normal feedback mechanisms, ectopic (non-glandular) sources for hormones, glandular neoplasms, inadequate hormone precursors, degraded or inactivated hormones, receptor disorders, intracellular disorders, autoimmune disorders, surgery, and ischemia.
2. Distinguish between syndrome of inappropriate ADH (SIADH) and diabetes insipidus.
3. Describe the disorders of the anterior pituitary: Sheehan syndrome, dwarfism, gigantism, panhypopituitarism, and acromegaly.
4. Characterize the manifestations of hypothyroidism and hyperthyroidism: basal metabolic rate, sympathetic response, weight, temperature tolerance, GI function, cardiovascular function, respiratory function, muscle tone and reflexes, general appearance, and general behavior.
5. Describe the disorders of hyperthyroidism: Graves disease, diffuse toxic goiter, and thyrotoxic crisis.
6. Describe the disorders of hypothyroidism: acute thyroiditis, subacute thyroiditis, Hashimoto disease (autoimmune thyroiditis), congenital hypothyroidism (cretinism), myxedema, and myxedema coma.
7. Distinguish between primary and secondary hyperparathyroidism and hypoparathyroidism.
8. Describe the similarities and differences between insulin-dependent (type 1) and non-insulin-dependent (type 2) diabetes mellitus.
9. Identify and describe the acute complications of diabetes mellitus: hypoglycemia (insulin shock), diabetic ketoacidosis (DKA), and hyperosmolar hyperglycemic, and nonketotic syndrome (HHNKS).
10. Describe the chronic complications of diabetes mellitus: diabetic neuropathies, microvascular diseases, macrovascular diseases, and infections.
11. Describe the etiology, pathogenesis, and manifestations of hyperfunction and hypofunction of the adrenal cortex: Cushing syndrome, Cushing disease, Conn disease (primary hyperaldosteronism), secondary hyperaldosteronism, feminization, virilization, and Addison disease.
12. Describe adrenal medulla hyperfunction

Stress and Disease

1. Describe Selye's historic general adaptation syndrome and cite its stages.
2. Identify current concepts that modify Selye's work. Define homeostasis and cite examples.
3. Define stress, identify stressors, and characterize the stress response.
4. Summarize the major interactions of the nervous, endocrine, and immune systems in the stress response.
5. Distinguish between ineffective and effective ways of coping with stress.
6. Cite examples of stress-related diseases.