Goodman: Pathology for the Physical Therapist Assistant

Chapter 02: Problems Affecting Multiple Systems

Test Bank

MULTIPLE CHOICE

1. Which of the following is not the body's response to chronic inflammation?
A. production of fibrous tissue
B. decrease in erythrocyte sedimentation rate (ESR)
C. accumulation of lymphocytes
D. low-grade fever

ANS: B
PAGE NUMBER: 14
RATIONALE: Systemic effects of chronic inflammation may include low-grade fever, malaise, weight loss, anemia, and fatigue. The ESR is increased during episodes of chronic inflammation. In general, as the disease improves, the ESR decreases.

2. Which of the following is widely considered as the most severe form of immunodeficiency?
A. B cell deficiencies
B. T cell deficiencies
C. combined deficiencies
D. malnutrition

ANS: C
PAGE NUMBER: 15
RATIONALE: B cell deficiencies predispose an individual to bacterial infections, while T cell deficiencies predispose to viral and fungal infections. Combined deficiencies, such as acquired immunodeficiency syndrome (AIDS) are particularly severe because they predispose the body to many kinds of viral, bacterial, and fungal infections.

3. An adverse drug reaction that is potentially life threatening is classified as_____.
A. mild
B. moderate
C. severe
D. lethal

ANS: C
PAGE NUMBER: 16
RATIONALE: Severe adverse drug reactions are potentially life threatening and require discontinuation of the drug with specific treatment to the adverse reaction.

4. An elderly patient is prescribed a drug that is water soluble. As a general rule the dosages of this drug should be _____.

A. increased because there is an increase in body water as we age
B. decreased because there is a decrease in body water as we age
C. increased because there is a decrease in body water as we age
D. decreased because there is an increase in body water as we age

ANS: B
PAGE NUMBER: 16
RATIONALE: A decrease in lean body mass and an increase in the proportion of body fat result in a decrease in body water. As a result, water-soluble drugs have a lower volume of distribution that speeds up onset of action and raises peak concentration. Higher peak concentrations of the drug are associated with an increase in toxicity.

5. What adverse drug reaction would be expected with the long-term use of neuroleptic drugs in the elderly population?
A. abdominal cramps
B. hypertension
C. tardive dyskinesia
D. pulmonary edema

ANS: C
PAGE NUMBER: 16
RATIONALE: Tardive dyskinesia is characterized by repetitive, involuntary, and purposeless movements. The patient may demonstrate rapid movements of any extremity including the tongue.

6. Serious side effects of nonsteroidal anti-inflammatory drugs (NSAIDs) are usually not seen in which part of the body?
A. gastrointestinal (GI) tract
B. kidneys
C. cardiovascular system
D. skin

ANS: D
PAGE NUMBER: 18
RATIONALE: The use of NSAIDs is associated with a wide spectrum of side effects; however, most serious side effects are often seen in the GI tract, kidneys, and cardiovascular system.

7. Which NSAID is the most powerful anticoagulant agent?
A. aspirin
B. Vioxx
C. ibuprofen
D. naproxen

ANS: A
PAGE NUMBERS: 18-19

RATIONALE: Aspirin bonds irreversibly to platelets. A single dose of aspirin impairs clot formation for 5 to 7 days.

8. What is the most serious side effect of long-term use of glucocorticoids?
A. hyperglycemia
B. fluid retention
C. GI irritation
D. increased susceptibility to infection

ANS: D
PAGE NUMBER: 20
RATIONALE: The most serious side effect of steroid use is increased susceptibility to infection and the masking of inflammatory symptoms from infection or intraabdominal complications.

9. A 27-year-old male presents to physical therapy with a diagnosis of patella tendonitis. The patient explains that he has been "working out" for 5 to 6 hours per day for approximately the last 2 to 3 weeks. The therapist notes an abnormal amount of facial acne and body hair. The therapist suspects drug abuse. What type of drug is this patient most likely abusing?
A. glucocorticoids
B. NSAIDs
C. anabolic steroids
D. marijuana

ANS: C
PAGE NUMBER: 21
RATIONALE: Side effects of anabolic steroids are often acne vulgaris and an increase in sexual drive, body hair, and aggressive behavior. There is also susceptibility to bicep and patella tendon strains. Therapists should always take a comprehensive history for a possible anabolic steroid abuse.

10. Radiation therapy will not perform which of the following functions?
A. destroy hydrogen bonds within DNA
B. promote cellular replication
C. cause the production of free radicals
D. cause ischemia of irradiated tissues

ANS: B
PAGE NUMBER: 24
RATIONALE: Because radiation destroys the hydrogen bonds within DNA, this prevents cellular replication. Often arterioles are damaged, resulting in inadequate nutritional supply, leading to ischemia of irradiated tissues.

11. Which of the following is an immediate effect of ionizing radiation on the cardiovascular and pulmonary symptoms?
A. radiation pneumonitis
B. radiation fibrosis

C. lymphedema
D. coronary artery disease

ANS: A
PAGE NUMBER: 25
RATIONALE: Radiation pneumonitis is caused by significant interstitial inflammation creating a reduction of gas exchange. It usually occurs approximately 2 days to 3 months after completion of radiation therapy and typically resolves in 6 to 12 months. All of the other choices are delayed effects of ionizing radiation.

12. A patient is undergoing an ionizing radiation to treat cancer. Several weeks into the patient's treatment, they begin to complain of "sunburn" over the area that is being irradiated. There is accompanying hair loss and dyspigmentation. What grade of radiation dermatitis is this patient experiencing?
A. grade 1
B. grade 2
C. grade 3
D. grade 4

ANS: A
PAGE NUMBER: 25
RATIONALE: Grade 1 reactions resemble sunburn. Grade 2 reactions produce persistent erythema or patchy moist desquamation. Pitting edema is usually characterized in grade 3, and grade 4 reactions are severe with skin necrosis.

13. A patient has experienced a grade 2 reaction to radiation in the axilla. Which of the following would be an inappropriate treatment for a patient with this diagnosis?
A. active and passive range motion from the shoulder
B. skin cream to the area
C. use of antiperspirants
D. washing the area daily with water and gentle soap

ANS: C
PAGE NUMBER: 26
RATIONALE: Treatment of acute cutaneous skin injuries is generally symptomatic. Antiperspirants and talcum powder should be avoided in the radiation field. Active and passive ranges of motion exercises are important for retention of mobility and reduction of contractures especially in the axillary region.

14. Which of the following is a delayed complication of radiation to the brain?
A. debilitating fatigue
B. dry skin
C. Lhermitte sign
D. radionecrosis

ANS: D

PAGE NUMBER: 27
RATIONALE: Choices A and B are both acute symptoms of radiation to the brain. Lhermitte sign is generally described as a tingling or shock-like sensation passing down the arm or trunk when the neck is flexed. Radionecrosis is a serious long-term complication of radiation to the brain. Symptoms include headache, changes in cognition and personality, focal neurologic deficits, and seizures.

15. What are the two most common side effects of chemotherapeutic drugs?
A. alopecia and gastrointestinal toxicity
B. gastrointestinal toxicity and myelosuppression
C. gastrointestinal toxicity and fatigue
D. fatigue and myelosuppression

ANS: C
PAGE NUMBERS: 29-30
RATIONALE: Over 75% of patients receiving combination chemotherapy experience nausea and vomiting. It has been estimated that 70% to 100% of individuals with cancer will experience fatigue. Both of the symptoms are usually early on in the course of chemotherapy.

16. A patient is receiving physical therapy while undergoing chemotherapy for a diagnosis of cancer. The patient has complained of fatigue throughout the course of therapy. Which of the following is incorrect advice to give this patient?
A. The patient should be encouraged to increase physical activity.
B. The patient should be instructed in low to moderate levels of aerobic exercise.
C. The patient should be encouraged to sleep 10 hours per day.
D. The patient should be encouraged to maintain compliance with a home exercise program.

ANS: C
PAGE NUMBER: 31
RATIONALE: Research has shown that people recovering from chemotherapy should not be instructed to rest but should increase physical activity within tolerances. Prolonged rest and decreased activity coupled with sleep disturbances or too much sleep can contribute to increased fatigue.

17. Which of the following conditions is a generalized connective tissue disorder of unknown origin cause characterized by thickening and fibrosis of the skin?
A. rheumatoid arthritis
B. systemic lupus erythematosus
C. systemic sclerosis
D. sarcoidosis

ANS: C
PAGE NUMBERS: 33-34
RATIONALE: Rheumatoid arthritis is an autoimmune disease of the synovial tissue and joints. Systemic lupus erythematosus is also an autoimmune disease but can affect multiple organs. Sarcoidosis is characterized by granulomas that develop in the organs.

18. What are the most common causes of multiple organ dysfunction syndrome?
A. pulmonary edema and congestive heart failure
B. sepsis and myocardial infarction
C. pulmonary edema and myocardial infarction
D. sepsis and septic shock

ANS: D
PAGE NUMBER: 34
RATIONALE: Multiple organ dysfunction syndrome is characterized by progressive failure of two or more organ systems after a severe illness or injury. Sepsis and septic shock are the most common causes.

19. Imbalances of what electrolyte influences blood volume and the retention or loss of interstitial fluid?
A. potassium
B. calcium
C. magnesium
D. sodium

ANS: D
PAGE NUMBER: 37
RATIONALE: Sodium affects the osmolality of blood and therefore influences blood volume. Potassium is necessary to maintain function of the sodium-potassium membrane pump. Imbalances of potassium affect muscular activity throughout the body, including the organs and skeletal muscles. Calcium plays a role in the electrical excitation of cardiac cells and the mechanical contraction of the myocardial and vascular smooth cell walls. Magnesium plays a role in maintaining the correct level of electrical excitability in the nerves and muscle cells by acting directly on the myoneural injunction.

20. Excessive sweating can lead to _____.
A. hyperkalemia
B. hypercalcemia
C. hypernatremia
D. hypocalcemia

ANS: C
PAGE NUMBERS: 39-40
RATIONALE: Excessive sweating (or water loss of any kind) will lead to electrolyte imbalances, especially with sodium and potassium.