Comprehensive Radiographic Pathology 8th edition Eisenberg Test Bank

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Test Bank - Chapter 01

Q1: A disease process caused by physicians or their treatment is:

A. idiopathic.
B. iatrogenic. (Correct)
C. neoplasia.
D. community acquired.

Rationale: A disease process caused by physicians or their treatment is iatrogenic.

Q2: A basic reaction of the body to some form of injury is a:

A. disease process. (Correct)
B. pathology.
C. study of diseases.
D. idiopathic process.

Rationale: A disease is the pattern of the body's response to some form of injury.

Q3: What term is used to denote a disease in which the underlying cause is unknown?

A. Idiopathic (Correct)
B. Antietiologic
C. Iatrogenic
D. Nosocomial

Rationale: Idiopathic diseases are those with an unknown, or as of yet unidentified, cause.

Q4: Alterations of cell growth, specifically an abnormal proliferation of cells, is called:

A. hyperplasia.
B. dysplasia.
C. neoplasia. (Correct)
D. aplasia.

Rationale: Alterations in cell growth lead to the development of neoplasms (tumors).

Q5: The initial response of body tissues to local injury is:

A. infection.
B. ischemia.
C. edema.
D. inflammation. (Correct)

Rationale: Inflammation is the initial response of body tissues to local injury.

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Q6: Heat and redness associated with inflammation are produced by:

A. hyperemia. (Correct)
B. scar tissue.
C. hyperplasia.
D. infarction.

Rationale: Hyperemia produces the heat and redness associated with inflammation.

Q7: In an injury, the destroyed tissue is replaced with:

A. granulomatous inflammation.
B. granulation tissue. (Correct)
C. phagocytes.
D. pyogens.

Rationale: A fibrous scar replaces the area of destroyed tissue with granulation tissue. Granulation tissue refers to a combination of young, developing capillaries and actively proliferating fibroblasts, which produce connective tissue fibers (collagen) that replace the dead tissue.

Q8: Of the five clinical signs of acute inflammation, the medical term for swelling is:

A. edema.
B. tumor. (Correct)
C. calor.
D. dolor.

Rationale: The five clinical signs of acute inflammation are rubor (redness), calor (heat), tumor (swelling), dolor (pain), and loss of function.

Q9: Some bacterial organisms produce _____ that cause damage to the tissue and incite the inflammatory proces.

A. toxoids.
B. pyogens.
C. toxins. (Correct)
D. abscesses.

Rationale: Some bacterial organisms (such as staphylococci and streptococci) produce toxins that damage the tissues and incite an inflammatory response.

Q10: Chronic inflammation in a localized area, which often has centralized necrosis, is called:

A. an exudate.
B. a granuloma. (Correct)
C. an abscess.
D. hyperplasia.

Rationale: A granuloma is a localized area of chronic inflammation, often with central necrosis.

Q11: In acute inflammation, the localized heat and redness at the site of injury are a result of:

A. migration of circulating white blood cells.
B. increased blood flow in microcirculation. (Correct)
C. regeneration of normal parenchymal cells.
D. enzymatic digestion of dead cells.

Rationale: The localized heat and redness result from increased blood flow in the microcirculation at the site of injury.

Q12: In pyogenic infections, the body responds by producing a thick, yellow fluid called:

A. bacteria.
B. pus. (Correct)
C. edema.
D. a scar.

Rationale: The presence of pyogenic bacteria leads to the production of a thick, yellow fluid called pus, which contains dead white blood cells, inflammatory exudates, and bacteria.

Q13: All pyogens can enter the blood circulation causing:

A. bacteremia. (Correct)
B. phagocytosis.
C. septicemia.
D. keloid tissue.

Rationale: All pyogens, wherever they become implanted, have the ability can invade blood vessels to produce bacteremia, with the potential involvement of other organs and tissues in the body.

Q14: Connective tissue that contracts, produces a fibrous scar, and causes an obstruction in the abdomen is known as:

A. keloids.
B. suppurative inflammation.
C. fibrous adhesions. (Correct)
D. hyperemia.

Rationale: Eventually the strong connective tissue contracts to produce a fibrous scar. In the abdomen, such fibrous adhesions can narrow loops of intestine and result in an obstruction.

Q15: An accumulation of abnormal amounts of fluid in the intercellular tissue throughout the body is called:

A. bacteremia.

B. elephantiasis.
C. filariasis.
D. edema. (Correct)

Rationale: Edema is the accumulation of abnormal amounts of fluid in the intercellular tissue spaces or body cavities.

Q16: Generalized _____ occurs most frequently in patients with congestive heart failure, cirrhosis of the liver, and certain forms of renal disease.

A. filariasis
B. edema (Correct)
C. elephantiasis
D. fibrous adhesions

Rationale: Generalized edema occurs most frequently in patients with congestive heart failure, cirrhosis of the liver, and certain forms of renal disease.

Q17: An inflammation associated with pus formation is:

A. bacteremia.
B. phagocytosis.
C. suppurative. (Correct)
D. hyperemia.

Rationale: Suppurative inflammation is associated with pus formation.

Q18: The protein-rich fluid associated with swelling in an inflammatory process is:

A. exudate. (Correct)
B. transudate.
C. pus.
D. permeable.

Rationale: The inflammatory exudate in the tissues results in the swelling associated with inflammation. The protein-rich exudate of inflammation must be differentiated from a transudate, a low-protein fluid, such as that seen in the pulmonary edema that develops in congestive heart failure.

Q19: The low-protein fluid associated with the inflammatory process as seen in pulmonary edema is called:

A. an abscess.
B. exudate.
C. transudate. (Correct)
D. filariasis.

Rationale: The protein-rich exudate of inflammation must be differentiated from a transudate, a low-protein fluid, such as that seen in the pulmonary edema that develops in congestive heart failure.

Q20: A localized area of ischemic necrosis within a tissue or organ produced by vascular occlusion is a(n):

A. gangrene.
B. infarct. (Correct)
C. purpura.
D. ecchymosis.

Rationale: An infarct is a localized area of ischemic necrosis within a tissue or organ produced by occlusion of either its arterial supply or its venous drainage.

Q21: Depriving tissues of oxygen and nutrients caused by an arterial vessel narrowing is referred to as:

A. ischemia. (Correct)
B. petechiae.
C. filariasis.
D. gangrene.

Rationale: Ischemia refers to an interference with the blood supply to an organ or part of an organ, depriving the organ's cells and tissues of oxygen and nutrients.

Q22: The progression of a loss of oxygen and nutrients resulting in tissue necrosis, especially in the diabetic's foot, is called:

A. infarction.
B. gangrene. (Correct)
C. ischemia.
D. hemorrhage.

Rationale: Severe arterial disease of the lower extremities may result in necrosis of several toes or a large segment of the foot, a condition called gangrene. A frequent symptom in diabetic patients is ischemia of the foot, which may progress to infarction and result in gangrene.

Q23: A subcutaneous hematoma greater than 1 to 2 cm is called a(n):

A. purpura.
B. ecchymosis. (Correct)
C. petechia.
D. infarct.

Rationale: A large (>1 to 2 cm) subcutaneous hematoma, or bruise, is called an ecchymosis.

Q24: An accumulation of blood trapped within the body tissues is known as a(an):

A. hematoma. (Correct)
B. ecchymosis.
C. petechiae.
D. pleural effusion.

Rationale: Blood may be trapped within body tissues resulting in an accumulation called a hematoma.

Q25: Minimal bleeding into mucous membranes or serosal surfaces is referred to as:

A. petechiae. (Correct)
B. hemorrhage.
C. purpura.
D. ecchymosis.

Rationale: Minimal hemorrhages into the skin, mucous membranes, or serosal surfaces are called petechiae.

Q26: The volume of blood loss, the rate of blood loss, and the site of blood loss will determine the significance of:

A. anasarca.
B. elephantiasis.
C. atrophy.
D. hemorrhage. (Correct)

Rationale: The significance of hemorrhage depends on the volume of blood loss, the rate of blood loss, and the site of the hemorrhage. Sudden losses of up to 20% of the blood volume or slow losses of even larger amounts may have little clinical significance.

Q27: When a reduction in the size or number of cells in an organ occurs, this results in:

A. aplasia.
B. atrophy. (Correct)
C. hypoplasia.
D. dysplasia.

Rationale: Atrophy refers to a reduction in the size or number of cells in an organ or tissue.

Q28: When cells fail to develop, reducing the size of an organ, the organ is considered:

A. hypoplasia. (Correct)
B. dysplasia.
C. hyperplasia.
D. neoplasia.

Rationale: Failure of normal development accounts for small size in hypoplasia and aplasia.

Q29: Which term is used to describe an increase in the size of an organ or tissue in response to an increase in function?

A. Neoplastic
B. Hypotrophy
C. Hyperplasia
D. Hypertrophy (Correct)

Rationale: Hypertrophy refers to an increase in the size of the cells of a tissue or organ in response to a demand for increased function.

Q30: The proliferation of granulation tissue to repair an injury is an example of:

A. hypertrophy.
B. anaplasia.
C. hyperplasia. (Correct)
D. dysplasia.

Rationale: Hyperplasia is an increase in the number of cells in a tissue or organ. Proliferation of granulation tissue in the repair of injury is an example.

Q31: The Latin word for “new growth” is:

A. tumor.
B. seeding.
C. neoplasia. (Correct)
D. ecchymosis.

Rationale: Neoplasia, from the Latin word for new growth, refers to an abnormal proliferation of cells that are no longer controlled by the factors that govern the growth of normal cells.

Q32: New growths that invade and destroy adjacent structures and have the ability to spread are considered:

A. neoplastic.
B. benign.
C. cachexia.
D. malignant. (Correct)

Rationale: Malignant neoplasms invade and destroy adjacent structures and spread to distant sites (metastasize).

Q33: A polyp is a:

A. projecting mass from an inner mucous membrane. (Correct)
B. malignant epithelial neoplasm.
C. benign cartilaginous tumor.

D. cancer.

Rationale: An epithelial tumor that grows as a projecting mass on the skin or from an inner mucous membrane (such as the gastrointestinal tract) is termed a papilloma or a polyp.

Q34: A malignancy of glandular tissue, such as breast or liver, is referred to as a(n):

A. adenoma.
B. adenocarcinoma. (Correct)
C. cystadenoma.
D. dysplasia.

Rationale: Adenocarcinoma refers to malignancies of glandular tissues, such as the breast, liver, and pancreas, and of the cells lining the gastrointestinal tract.

Q35: The term derived from the Latin term for “crab” is:

A. benign.
B. oncology.
C. neoplasia.
D. cancer. (Correct)

Rationale: Malignant neoplasms of epithelial cell origin are called carcinomas, from the Greek word karbinos, meaning “crab.”

Q36: The study of neoplasms or tumors is called:

A. pathology.
B. radiology.
C. oncology. (Correct)
D. etiology.

Rationale: Neoplasms are commonly referred to as tumors; the study of neoplasms is called oncology, derived from the Greek word oncos, meaning “tumor.”

Q37: Tumors closely resembling their cells of origin in structure and function are called:

A. malignant.
B. benign. (Correct)
C. cancerous.
D. dysplastic.

Rationale: Benign tumors closely resemble their cells of origin in structure and function.

Q38: When tumor cells flourish, causing the patient to become weak and emaciated, this condition is referred to as:

A. cachexia. (Correct)

B. petechiae.
C. anorexia.
D. anaplastic.

Rationale: Neoplastic cells act as parasites, competing with normal cells and tissues for their metabolic needs. Thus tumor cells may flourish, and the patient becomes weak and emaciated, a condition termed cachexia.

Q39: Benign epithelial neoplasms that grow in a glandlike pattern are:

A. cystadenomas.
B. adenocarcinomas.
C. adenomas. (Correct)
D. fibromas.

Rationale: The term adenoma is applied to benign epithelial neoplasms that grow in glandlike patterns.

Q40: Tumors that contain muscle cells are called:

A. myelomas.
B. myomas. (Correct)
C. papilloma.
D. hypertrophic.

Rationale: Myomas are tumors consisting of muscle cells.

Q41: Tumor cells of stratified squamous epithelium, which invade and destroy adjacent structures, make up:

A. adenomas.
B. sarcomas.
C. cystadenomas.
D. squamous cell carcinomas. (Correct)

Rationale: Squamous cell carcinoma denotes cancer in which the tumor cells resemble stratified squamous epithelium.

Q42: If a neoplastic growth proliferates without form, it is considered:

A. anaplastic. (Correct)
B. dysplastic.
C. aplastic.
D. hyperplastic.

Rationale: A tumor growing in a bizarre pattern is termed undifferentiated or anaplastic (without form).

Q43: Symptoms suggestive of esophageal or stomach cancer are:

A. anasarca and dysphagia.
B. anaplasia and anorexia.
C. aplasia and gangrene.
D. anorexia and dysphagia. (Correct)

Rationale: Difficulty in swallowing (dysphagia) or loss of appetite (anorexia), especially if accompanied by rapid weight loss, suggests a neoplasm in the esophagus or stomach.

Q44: Diffuse spread of malignant neoplasms by invasion into a natural body cavity is called:

A. tumor grading.
B. staging.
C. seeding. (Correct)
D. lymphatic spread.

Rationale: Seeding (diffuse spread) of cancers occurs when neoplasms invade a natural body cavity.

Q45: The major metastatic route of carcinomas is:

A. lymphatic spread. (Correct)
B. undifferentiated spread.
C. hematopoietic spread.
D. hematogenous spread.

Rationale: Lymphatic spread is the major metastatic route of carcinomas, especially those of the lung and breast.

Q46: Assessing the aggressiveness or degree of malignancy is referred to as:

A. staging.
B. grading. (Correct)
C. seeding.
D. metastatic.

Rationale: The grading of a malignant tumor assesses aggressiveness, or degree of malignancy.

Q47: To determine the most appropriate therapy, the disease process must be:

A. seeded.
B. staged. (Correct)
C. graded.
D. phased.

Rationale: Staging refers to the extensiveness of a tumor at its primary site and the presence or absence of metastases to lymph nodes and distant organs, such as the liver, lungs, and skeleton. The staging of a tumor aids in determining the most appropriate therapy.

Q48: Using a combination of cytotoxic substances to kill neoplastic cells is called:

A. radiation therapy.
B. chemotherapy. (Correct)
C. hormonal therapy.
D. seeding.

Rationale: Chemotherapy uses one or a combination of cytotoxic substances that kill neoplastic cells, but these drugs may injure many normal cells and result in significant complications.

Q49: The most common hereditary abnormality is:

A. chromosomal aberration.
B. enzyme deficiency. (Correct)
C. glycogen and lipid storage disease.
D. sex-linked disorders.

Rationale: The most common hereditary abnormality is an enzyme deficiency.

Q50: Exposure to radiation, chemicals, or viruses may result in alterations in the DNA called:

A. mutations. (Correct)
B. reduced penetrance.
C. variable expressivity.
D. aberrations.

Rationale: Mutations are alterations in the DNA structure that may become permanent hereditary changes if they affect the gonadal cells. Mutations may result from radiation, chemicals, or viruses.

Q51: A gene always producing an effect regardless of whether the person is homozygous or heterozygous is named:

A. recessive.
B. dominant. (Correct)
C. autosomal recessive.
D. autosomal dominant.

Rationale: Dominant genes always produce an effect regardless of whether the person is homozygous or heterozygous.

Q52: When a vaccine or toxoid is used to counteract an antigen, it is considered:

A. passive immunity.
B. active immunity. (Correct)

C. community-acquired immunity.
D. iatrogenic.

Rationale: In active immunity, a person forms antibodies to counteract an antigen in the form of a vaccine or a toxoid.

Q53: The body has the ability to combat antigens by forming _____ in the lymphoid tissue.

A. antibodies
B. toxins
C. immunoglobulins
D. antibodies and immunoglobulins (Correct)

Rationale: The immune reaction of the body provides a powerful defense against invading organisms by allowing it to recognize foreign substances (antigens), such as bacteria, viruses, fungi, and toxins, and to produce antibodies or immunoglobulins to counteract them.

Q54: Hypotension and vascular collapse with urticaria, bronchiolar spasm, and laryngeal edema are characteristics of:

A. anaphylactic reactions. (Correct)
B. cytotoxic reactions.
C. histamine release.
D. delayed reactions.

Rationale: Generalized, or systemic, anaphylactic reactions are characterized by hypotension and vascular collapse (shock) with urticaria (hives), bronchiolar spasm, and laryngeal edema.

Q55: Profound and sustained impairment of cellular immunity resulting in recurrent or sequential opportunistic infections is characteristic of:

A. anaphylactic reactions.
B. histamine release.
C. AIDS. (Correct)
D. cytotoxic reactions.

Rationale: Acquired immunodeficiency syndrome (AIDS), which most commonly affects young homosexual men and intravenous drug abusers, is characterized by a profound and sustained impairment of cellular immunity that results in recurrent or sequential opportunistic infections.

Q56: The retrovirus known to contribute to AIDS is:

A. hepatitis.
B. human immunodeficiency virus. (Correct)
C. immunoglobulins.
D. Kaposi sarcoma.

Rationale: AIDS is attributable to infection with retroviruses known as human immunodeficiency viruses (HIV).

Q57: A hazy, perihilar, granular infiltrate spreading to the lung periphery is the early radiographic finding of:

A. AIDS.
B. Kaposi syndrome.
C. hepatitis.
D. Pneumocystis jirovecii pneumonia. (Correct)

Rationale: The typical early radiographic finding of P. jirovecii pneumonia is a hazy, perihilar, granular infiltrate that spreads to the periphery and appears preponderantly interstitial.

Q58: The modality of choice to demonstrate the multiple manifestations of AIDS in the central nervous system is:

A. CT.
B. nuclear medicine.
C. ultrasound.
D. MRI. (Correct)

Rationale: MRI best demonstrates the multiple manifestations of AIDS in the central nervous system.

Q59: All of the following are personal protective equipment (PPE), except:

A. gown.
B. gloves.
C. mask.
D. sharps container. (Correct)

Rationale: A sharps container is not used for personal protection against the transmission of diseases.

Q60: All of the following are additive diseases in terms of x-ray attenuation, except:

A. pneumonia.
B. osteolytic metastasis. (Correct)
C. callus.
D. ascites.

Rationale: Osteolytic metastasis is a destructive disease.