



مقدم من فريق أفق الطبي



What term describes the accumulation of excess calcium salts in normal tissues, often resulting from disturbances in calcium metabolism?

Question 1Answer

- a.
Dystrophic calcification
- b.
Hypercalcemia
- c.
Metastatic calcification
- d.
Calcinosis

Which of the following is a common cause of liquefactive necrosis?

Question 2Answer

- a.
Autoimmune diseases
- b.
Chemical injury
- c.
Bacterial infections
- d.
Ischemia

In which condition would you most likely observe a "brown atrophy" of tissues?

Question 4Answer

- a.
Chronic infection
- b.
Acute necrosis
- c.
Acute inflammation
- d.
Chronic ischemia

Which term describes the process by which cancer cells spread from the primary tumor to distant sites in the body?

Question 3Answer

- a.
Differentiation
- b.
Metastasis
- c.
Hyperplasia
- d.
Invasion.

What type of necrosis is most commonly associated with tuberculosis?

Question 1Answer

- a.
Caseous necrosis
- b.
Fat necrosis
- c.
Liquefactive necrosis
- d.
Coagulative necrosis

Which term describes the presence of cancer cells in the lymphatic vessels?

Question 5Answer

- a.
Lymphangitis
- b.
Hematogenous spread
- c.
Lymphadenopathy
- d.
Lymphatic invasion

Which enzyme is typically elevated in cases of biliary obstruction?

Question 6Answer

- a.
Gamma-glutamyl transferase (GGT)
- b.
Aspartate aminotransferase (AST)
- c.
Alanine aminotransferase (ALT)
- d.
Alkaline phosphatase (ALP)

In which type of necrosis would you expect to see a "gelatinous" appearance of tissue?

Question 7Answer

- a.
Caseous necrosis
- b.
Fat necrosis
- c.
Liquefactive necrosis
- d.
Coagulative necrosis

Which of the following is NOT a characteristic of malignant tumors?

Question 2Answer

- a.
Potential to metastasize
- b.
High mitotic index
- c.
Well-defined borders
- d.
Invasion into surrounding tissues

Which type of intracellular accumulation results from the abnormal deposition of proteins in various organs, often leading to disease conditions such as multiple myeloma or Alzheimer's disease?

Question 4Answer

- a.
Hemochromatosis
- b.
Amyloidosis
- c.
Lipofuscinosis
- d.
Steatosis

Which term describes the process by which cancer cells acquire the ability to sustain their own growth signals?

Question 3Answer

- a.
Immune evasion
- b.
Angiogenesis
- c.
Apoptosis resistance
- d.
Autocrine signaling

Which of the following is a common histological feature of squamous cell carcinoma?

Question 8Answer

- a.
Presence of multinucleated giant cells
- b.
Presence of keratin pearls
- c.
Abundant extracellular mucin
- d.
Formation of glandular structures

Which tumor marker is commonly used in the diagnosis and monitoring of prostate cancer?

Question 7Answer

- a.
CA-125
- b.
CEA (Carcinoembryonic Antigen)
- c.
PSA (Prostate-Specific Antigen)
- d.
AFP (Alpha-Fetoprotein)

Which pigment accumulation is associated with the aging process and is often seen in long-lived cells, resulting in a brownish discoloration?

Question 8Answer

- a.
Hemosiderin
- b.
Bilirubin
- c.
Lipofuscin
- d.
Melanin

Which of the following is a common feature of apoptosis?

Question 9Answer

- a.
Formation of apoptotic bodies
- b.
Rupture of the cell membrane
- c.
Inflammation
- d.
Swelling of the cell

Which type of cell injury is often seen in response to toxins or drugs, characterized by the buildup of substances that the cell cannot process or eliminate?

Question 9Answer

- a.
Fatty change
- b.
Metaplasia
- c.
Hyperplasia
- d.
Dysplasia

Which type of cancer is commonly associated with exposure to asbestos?

Question 10Answer

- a.
Colon cancer
- b.
Lung cancer
- c.
Breast cancer
- d.
Prostate cancer

Which of the following is an example of a chronic inflammatory cell?

Question 11Answer

- a.
Basophils
- b.
Macrophages
- c.
Neutrophils
- d.
Eosinophils

What type of necrosis is most commonly associated with tuberculosis?

Question 10Answer

- a.
Liquefactive necrosis
- b.
Fat necrosis
- c.
Caseous necrosis
- d.
Coagulative necrosis

Which type of intracellular accumulation results from the abnormal deposition of proteins in various organs, often leading to disease conditions such as multiple myeloma or Alzheimer's disease?

Question 12Answer

- a.
Lipofuscinosis
- b.
Hemochromatosis
- c.
Amyloidosis
- d.
Steatosis

Which type of cancer is primarily associated with the Epstein-Barr virus (EBV)?

Question 13Answer

- a.
Non-Hodgkin lymphoma
- b.
Breast cancer
- c.
Lung cancer
- d.
Melanoma

Which of the following is a characteristic feature of malignant tumors?

Question 11Answer

- a.
High mitotic activity
- b.
Encapsulation
- c.
Well-differentiated cells
- d.
Localized growth

Which grade of a tumor indicates the highest degree of differentiation and least aggressive behavior?

Question 14Answer

- a.
Grade I
- b.
Grade III
- c.
Grade II
- d.
Grade IV

Which type of cell is most likely to be found in a chronic inflammatory response?

Question 12Answer

- a.
Mast cells
- b.
Lymphocytes
- c.
Neutrophils
- d.
Eosinophils

Which type of inflammation is characterized by a predominance of neutrophils?

Question 15Answer

- a.
Serous inflammation
- b.
Chronic inflammation
- c.
Granulomatous inflammation
- d.
Acute inflammation

Which term describes the process by which normal tissue is replaced by fibrous tissue?

Question 14Answer

- a.
Atrophy
- b.
Metaplasia
- c.
Fibrosis
- d.
Hyperplasia

Which type of necrosis is typically seen in a myocardial infarction?

Question 15Answer

- a.
Liquefactive necrosis
- b.
Apoptotic necrosis
- c.
Caseous necrosis
- d.
Coagulative necrosis

Which of the following is an example of a pre-cancerous condition that involves abnormal proliferation of epithelial cells?

Question 16Answer

- a.
Dysplasia
- b.
Atrophy
- c.
Regeneration
- d.
Hyperplasia

Which pathological process is described as the abnormal accumulation of substances within cells?

Question 18Answer

- a.
Cellular infiltration
- b.
Apoptosis
- c.
Necrosis
- d.
Cellular accumulation

Which of the following is a characteristic feature of granulomatous inflammation?

Question 17Answer

- a.
Formation of granulomas
- b.
Neutrophil infiltration
- c.
Lymphocyte proliferation
- d.
Edema

Which type of necrosis is commonly associated with tuberculosis infections?

Question 19Answer

- a.
Caseous necrosis
- b.
Fat necrosis
- c.
Coagulative necrosis
- d.
Liquefactive necrosis

A 50-year-old woman with a history of chronic hepatitis B infection presents with an abdominal mass and elevated alpha-fetoprotein (AFP). Imaging reveals a liver mass. What is the most likely diagnosis?

Question 21Answer

- a.
Hepatic hemangioma
- b.
Liver metastasis from breast cancer
- c.
Cholangiocarcinoma
- d.
Hepatocellular carcinoma

Which of the following is a feature of irreversible cell injury?

Question 18Answer

- a.
Mitochondrial swelling
- b.
Plasma membrane blebbing
- c.
Nuclear condensation
- d.
Cell membrane integrity loss

What is the term for the process of tissue repair that involves the formation of granulation tissue?

Question 19Answer

- a.
Fibrosis
- b.
Hyperplasia
- c.
Wound healing
- d.
Regeneration

Which cell type is primarily involved in the formation of a fibrous scar after tissue injury?

Question 23Answer

- a.
Macrophages
- b.
Fibroblasts
- c.
Endothelial cells
- d.
Neutrophils

Which type of intracellular accumulation is characterized by the buildup of lipids within liver cells, commonly due to alcohol abuse or metabolic disorders?

Question 22Answer

- a.
Lipofuscinosis
- b.
Hemochromatosis
- c.
Steatosis
- d.
Amyloidosis

Which of the following is a known consequence of chronic inflammation?

Question 20Answer

- a.
Immediate neutrophil response
- b.
Formation of granulomas
- c.
Rapid resolution
- d.
Acute swelling

Which type of cell is most likely to be found in a chronic inflammatory response?

Question 21Answer

- a.
Neutrophils
- b.
Mast cells
- c.
Eosinophils
- d.
Lymphocytes

Which process involves the migration of epithelial cells over the provisional matrix to restore the integrity of the epithelial layer during wound healing?

Question 22Answer

- a.
Collagen remodeling
- b.
Epithelialization
- c.
Fibroplasia
- d.
Angiogenesis

Which cytokine is primarily responsible for fever in acute inflammation?

Question 23Answer

- a.
Tumor necrosis factor-alpha (TNF-alpha)
- b.
Interferon-gamma (IFN-gamma)
- c.
Interleukin-1 (IL-1)
- d.
Interleukin-6 (IL-6)

Which type of necrosis is commonly associated with tuberculosis infections?

Question 24Answer

- a.
Fat necrosis
- b.
Caseous necrosis
- c.
Coagulative necrosis
- d.
Liquefactive necrosis

What is the term for the process by which cells lose their normal structure and function due to chronic injury or stress?

Question 26Answer

- a.
Dysplasia
- b.
Hyperplasia
- c.
Metaplasia
- d.
Atrophy

Which process involves the transformation of normal cells into cancerous cells due to genetic and epigenetic alterations?

Question 25Answer

- a.
Metastasis
- b.
Apoptosis
- c.
Tumorigenesis
- d.
Hyperplasia

Which of the following is NOT a typical feature of chronic inflammation?

Question 25Answer

- a.
Lymphocyte infiltration
- b.
Macrophage activation
- c.
Neutrophil predominance
- d.
Fibrosis

Which molecular alteration is commonly associated with the development of colorectal cancer?

Question 28Answer

- a.
BRCA1 mutation
- b.
TP53 mutation
- c.
RAS mutation
- d.
BCR-ABL fusion gene

A 60-year-old woman presents with jaundice and weight loss. Imaging studies reveal a pancreatic mass, and the tumor marker CA 19-9 is elevated. What is the most likely diagnosis?

Question 28Answer

- a.
Pancreatic neuroendocrine tumor
- b.
Chronic pancreatitis
- c.
Pancreatic cystadenoma
- d.
Pancreatic adenocarcinoma

Which process describes the conversion of one differentiated cell type to another type better suited to the environment?

Question 27Answer

- a.
Hyperplasia
- b.
Dysplasia
- c.
Atrophy
- d.
Metaplasia

Which of the following is a key characteristic of acute-phase reactants in inflammation?

Question 30Answer

- a.
Increase in serum concentration during inflammation
- b.
Decrease in serum concentration during inflammation
- c.
Decrease in white blood cell count
- d.
Increase in hemoglobin concentration

Which of the following is the most common type of cell adaptation in response to increased functional demand?

Question 30Answer

- a.
Hypertrophy
- b.
Atrophy
- c.
Hyperplasia
- d.
Metaplasia

Which of the following is NOT a typical sign of inflammation?

Question 31Answer

- a.
Pain
- b.
Redness
- c.
Decreased function
- d.
Fever

Which of the following is a key characteristic of anaplastic tumors?

Question 32Answer

- a.
Low mitotic rate
- b.
Well-differentiated cells
- c.
High degree of pleomorphism
- d.
Limited local invasion

Which of the following is NOT a common route of metastasis for solid tumors?

Question 33Answer

- a.
Electrical conduction
- b.
Lymphatic spread
- c.
Hematogenous spread
- d.
Direct extension.

What is the primary cause of intracellular iron accumulation in conditions like hemochromatosis?

Question 31Answer

- a.
Chronic blood loss
- b.
Defective vitamin C absorption
- c.
Genetic mutations affecting iron metabolism
- d.
Excessive dietary intake

Which tumor suppressor gene is commonly mutated in various types of cancers, including colon and lung cancer?

Question 32Answer

- a.
RAS
- b.
TP53
- c.
BRCA1
- d.
MYC

Which type of cell adaptation is characterized by the reduction in cell size?

Question 36Answer

- a.
Atrophy
- b.
Metaplasia
- c.
Hyperplasia
- d.
Hypertrophy

Which cell type is primarily involved in the formation of a fibrous scar after tissue injury?

Question 34Answer

- a.
Fibroblasts
- b.
Neutrophils
- c.
Endothelial cells
- d.
Macrophages

Which of the following is a classic feature of a malignant tumor?

Question 35Answer

- a.
Slow growth rate
- b.
Low mitotic activity
- c.
Invasive growth
- d.
Well-differentiated cells

What term is used to describe a malignant tumor arising from mesenchymal tissues?

Question 39Answer

- a.
Sarcoma
- b.
Leukemia
- c.
Carcinoma
- d.
Melanoma

Which term refers to a benign tumor derived from epithelial tissue?

Question 37Answer

- a.
Lymphoma
- b.
Sarcoma
- c.
Carcinoma
- d.
Adenoma

What is the effect of severe or prolonged cell injury on the cell's genetic material?

Question 33Answer

- a.
Increased DNA repair
- b.
DNA fragmentation and mutation
- c.
DNA replication
- d.
Enhanced gene expression.

A 65-year-old man presents with persistent bone pain and an elevated serum calcium level. A bone scan reveals multiple osteolytic lesions. A bone marrow biopsy shows an increased number of plasma cells. What is the most likely diagnosis?

Question 3Answer

- a.
Metastatic prostate cancer
- b.
Primary bone lymphoma
- c.
Osteosarcoma
- d.
Multiple myeloma

Which cancer-related gene is often mutated in hereditary breast and ovarian cancers?

Question 40Answer

- a.
MYC
- b.
BRCA1
- c.
TP53
- d.
KRAS

Which type of cell adaptation involves an increase in the number of cells?

Question 4Answer

- a.
Hyperplasia
- b.
Metaplasia
- c.
Atrophy
- d.
Hypertrophy

Which term describes the tendency of cancer cells to invade surrounding tissues and structures, resulting in local destruction?

Question 34Answer

- a.
Invasion
- b.
Angiogenesis
- c.
Metastasis
- d.
Hyperplasia

Which of the following is the primary feature of necrosis?

Question 8Answer

- a.
DNA fragmentation
- b.
Cell shrinkage
- c.
Apoptosis
- d.
Cell swelling

Which type of inflammation is characterized by a predominance of neutrophils?

Question 5Answer

- a.
Serous inflammation
- b.
Granulomatous inflammation
- c.
Acute inflammation
- d.
Chronic inflammation

Which of the following is a characteristic feature of granulomatous inflammation?

Question 7Answer

- a.
Formation of granulomas
- b.
Neutrophil infiltration
- c.
Lymphocyte proliferation
- d.
Edema

Which term describes the reorganization and maturation of the extracellular matrix and collagen fibers during the final phase of wound healing?

Question 39Answer

- a.
Fibroplasia
- b.
Wound contraction
- c.
Remodeling
- d.
Granulation

A 25-year-old woman presents with a non-tender, firm mass in the breast that has been present for several months. The mass is well-circumscribed and mobile on examination. A biopsy shows a proliferation of fibrous tissue and epithelial components. What is the most likely diagnosis?

Question 15Answer

- a.
Ductal carcinoma in situ (DCIS)
- b.
Invasive ductal carcinoma
- c.
Phyllodes tumor
- d.
Fibroadenoma

Which cell type is primarily responsible for synthesizing and depositing the extracellular matrix during the proliferative phase of wound healing?

Question 37Answer

- a.
Macrophages
- b.
Endothelial cells
- c.
Fibroblasts
- d.
Keratinocytes

Which term describes the condition where cells become adapted to chronic stress, resulting in decreased function but not necessarily cell death?

Question 25Answer

- a.
Atrophy
- b.
Hypertrophy
- c.
Hyperplasia
- d.
Metaplasia

A 50-year-old woman presents with a history of dysphagia and a mass in the neck. A biopsy of the mass reveals undifferentiated cells. The patient has a history of chronic exposure to asbestos. What is the most likely diagnosis?

Question 27Answer

- a.
Adenoid cystic carcinoma
- b.
Squamous cell carcinoma of the larynx
- c.
Papillary thyroid carcinoma
- d.
Mesothelioma

Which of the following is a primary mediator of acute inflammation?

Question 22Answer

- a.
Collagen
- b.
Histamine
- c.
Insulin
- d.
Myeloperoxidase

What is the primary purpose of staging in cancer management?

Question 29Answer

- a.
To evaluate the cellular differentiation
- b.
To identify the type of cancer
- c.
To determine the tumor grade
- d.
To assess the extent of disease spread

Which process involves the deposition of calcium salts in damaged tissues, often without prior tissue necrosis?

Question 35Answer

- a.
Fibrosis
- b.
Dystrophic calcification
- c.
Metastatic calcification
- d.
Steatosis

What type of necrosis is most commonly associated with pancreatitis?

Question 38Answer

- a.
Caseous necrosis
- b.
Coagulative necrosis
- c.
Liquefactive necrosis
- d.
Fat necrosis

What is the hallmark of apoptosis?

Question 32Answer

- a.
DNA fragmentation
- b.
Cell rupture
- c.
Inflammation
- d.
Cell swelling

Which of the following is a classic feature of apoptosis?

Question 39Answer

- a.
Swelling and rupture of the cell membrane
- b.
Recruitment of neutrophils
- c.
Formation of apoptotic bodies and phagocytosis
- d.
Release of intracellular contents