

Which type of necrosis is typically found in a granuloma?

- A. caseous**
- B. coagulative
- C. fat
- D. fibrinoid
- E. liquefactive

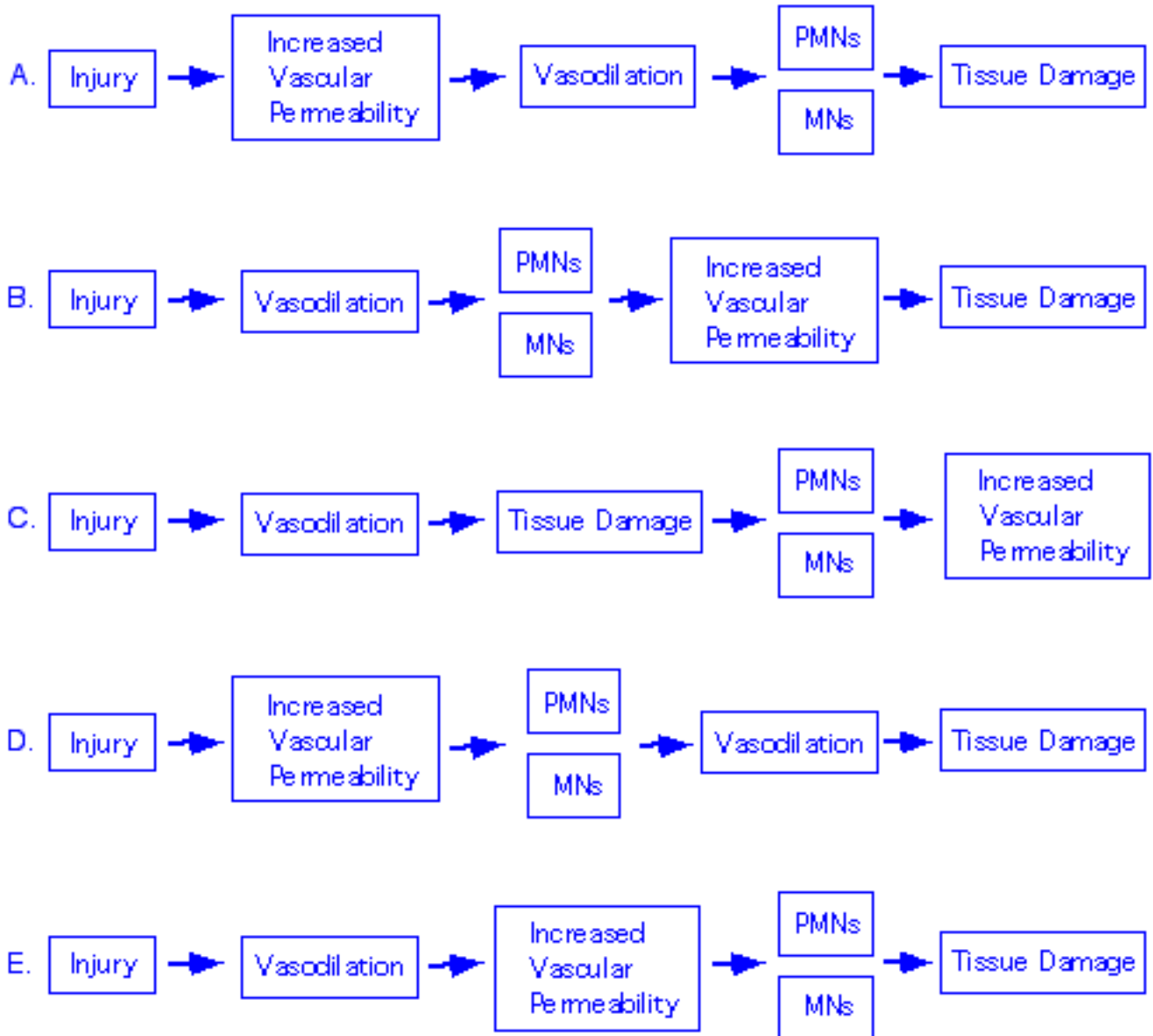
Among the following statements, which is **MOST** likely regarding cell injury?

- A. Cell injury is not reversible.
- B. Cell injury will always lead to cell death.
- C. Cellular reactions to injury are not dependent upon the ability of the cell to adapt.
- D. Clinically, cell injury can be assessed.**
- E. The responses to cell injury are endless.

A twenty-three-year-old physical therapy student is brought by ambulance to the emergency room complaining of fever, chills, productive cough of green-yellow sputum and pleuritic chest pain for the last forty-eight hours. On physical examination, the student is febrile. The student has decreased breath sounds in the left lung base. Bronchoscopy reveals red, swollen bronchial mucosa and the lumen is filled with green-yellow purulent mucus. Among the following chemical mediators of inflammation, which is **MOST** likely responsible for this student's red bronchial mucosa?

- A. C3b
- B. histamine**
- C. leukotriene B₄
- D. tumor necrosis factor
- E. vascular endothelial growth factor

A UCSF physical therapy student complains of fever and a runny nose of copious amounts of thick, dark green mucus for the last three days. Among the following, which is the correct sequence that has occurred in his/her nasal cavity?



Select one:

- A. A
- B. B
- C. C
- D. D
- E. E

Among the following, which is the **BEST** example of labile cells?

- A. chondrocytes
- B. endothelial cells
- C. germinal cells of the ovary
- D. neurons of the central nervous system
- E. white blood cells from the bone marrow**

A 51-year-old man undergoes excisional biopsy of a lung lesion. Within the lesion, the surgical pathologist identifies a collection of modified macrophages (epithelioid cells), CD4+ T-lymphocytes, fibroblasts and central necrosis. Among the following, the **BEST** term for this patient's lesion is:

- A. abscess
- B. acute infarct
- C. caseating granuloma**
- D. granulation tissue
- E. necrotizing pneumonia

Wound healing by primary intention is MOST likely to:

- A. heal rapidly**
- B. help close infected wounds
- C. produce more scarring compared to secondary intention
- D. produce profound wound contraction
- E. result in large amount of granulation tissue

A 55-year-old woman is recently diagnosed with acute bronchopneumonia and treated with the appropriate microbial therapy. Among the following outcomes, which is the **MOST** desirable?

- A. abscess formation
- B. chronic inflammation
- C. eschar formation
- D. fibrosis/scar
- E. resolution**

Among the following conditions, which is **MOST** likely to retard tissue repair?

- A. anemia**
- B. good nutrition
- C. intact vascular supply
- D. primary union
- E. wound sterility

Which statement is **MOST** likely regarding type III hypersensitivity reaction?

- A. Activated CD4 T-cells recruiting macrophages leading to tissue damage.
- B. An example of type II hypersensitivity reaction is granulomatous inflammation due to coccidioidomycosis.
- C. Antibody bound to a cell surface molecule on macrophages.
- D. IgG binds to a cell surface ligand triggering complement leading to tissue damage.
- E. This type of hypersensitivity reaction is caused by the binding of an antibody to a soluble antigen.

A 7-month-old male infant is diagnosed with x-linked agammaglobulinemia. What is the **MOST** likely cell defective in this condition?

- A. B-lymphocyte**
- B. macrophage
- C. neutrophil
- D. T4 lymphocyte
- E. T8 lymphocyte

A 54-year-old man with active pulmonary tuberculosis has multiple granulomas scattered throughout his lungs. Among the following types of hypersensitivity reactions, which is **MOST** likely in this patient?

- A. antibody-mediated
- B. cell-mediated**
- C. immediate
- D. immune complex-mediated
- E. neutrophil-mediated

What mechanism would account for the **MAJORITY** of edema in cirrhosis of the liver?

- A. endothelial damage
- B. increased hydrostatic pressure
- C. increased osmotic tension of interstitial fluid
- D. lymphatic obstruction
- E. reduced intravascular oncotic pressure**

Among the following, which is **MOST** likely to lead to passive congestion and hypoxia?

- A. acute inflammation
- B. asthma
- C. chronic inflammation
- D. hypersensitivity reaction type I
- E. venous thrombosis**

A 25-year-old man consumes large quantities of salty foods and he develops severe anasarca. What is the **MOST** likely explanation for this patient's clinical presentation?

- A. decreased colloid osmotic pressure
- B. increased hydrostatic pressure
- C. increased interstitial sodium**
- D. injury to endothelial cells
- E. lymphatic obstruction

Among the following types of cell injury, which is the **MOST** likely to occur in a nutmeg liver?

- A. chemical
- B. hypoxia**
- C. infection
- D. immunologic
- E. physical

Melena **BEST** defines:

- A. blood in urine
- B. coughing up blood
- C. hemolyzed blood in stool**
- D. localized hemorrhage into tissue
- E. vomiting blood after traumatic injury

Among the following statements, which is **MOST** likely?

- A. The majority of cancers arise in non-epithelial tissues.
- B. Hepatitis B is associated with primary lung carcinoma.
- C. Carcinogenesis is a multi-step process.**
- D. The most common malignant tumor in women is invasive lung cancer.
- E. The most common malignant tumor leading to death in men is colon carcinoma.

Among the following substances, which one is **MOST** likely required to initiate the extrinsic system of blood coagulation in tissue injury?

- A. Collagen
- B. Factor 12 (Hageman Factor)
- C. Histamine
- D. Prostacyclin (PGI₂)
- E. Tissue factor**

Among the following statements, which is **LEAST** likely?

- A. Cancer is the second leading cause of death in the United States.
- B. Diagnosis of cancer requires a biopsy or fine needle aspiration.
- C. Malignant tumors often revert back to dysplasia.**
- D. Most benign tumors will not become malignant.
- E. UV radiation exposure is the most common cause of skin cancers.