Test bank for cell injury

Done by : Mahmoud Hasan

Q1) *71-year-old man has difficulty with urination. His urinary retention leads to numerous trips to the restroom per day. On digital rectal examination is prostate is diffusely enlarged. Which of the following represents a pathologic change leading to this man's problem?*

A Dysplasia

B Hypertrophy

C Hyperplasia

D Metaplasia

E Neoplasia

Q2) *A 26-year-old man has had a high fever for the past 2 days. On exam he has a heart murmur. Echocardiography shows destruction of the aortic valve by large, irregular vegetations. Staphylococcus aureus is cultured from his blood. He develops left upper quadrant pain. Abdominal CT shows a wedge-shaped 1.5 x 3 cm splenic lesion with base on the capsule. The splenic lesion is most likely to result from which of the following cellular abnormalities?*

A Coagulative necrosis

B Abscess formation

C Metaplasia

D Caseous necrosis

E Liquefactive necrosis

Q3) *A study is performed to identify predisposing risks for tissue cellular changes. In some persons epithelial metaplasia occurs. In which of the following situations is the process of epithelial metaplasia most likely to take place?*

A Tanning of the skin following sunlight exposure

B Lactation following pregnancy

C Vitamin A deficiency

D Acute myocardial infarction

E Urinary obstruction from an enlarged prostate

Q4) *A 19-year-old woman gives birth to her first child. She begins breast feeding the infant. She continues breast feeding for almost a year with no difficulties and no complications. Which of the following cellular processes that began in the breast during pregnancy allowed her to nurse the infant for this period of time?*

A Stromal hypertrophy

B Epithelial dysplasia

C Steatocyte atrophy

D Ductal epithelial metaplasia

E Lobular hyperplasia

Q5) *A 71-year-old woman had loss of consciousness persisting for over an hour. When she becomes arousable, she cannot speak nor move her right arm. A cerebral angiogram reveals an occlusion to her left middle cerebral artery. Three months later, a computed tomographic (CT) scan shows a large 5 cm cystic area in her left parietal lobe cortex. This CT finding is most likely the consequence of resolution from which of the following pathologic cellular events?*

A) Liquefactive necrosis

B) Atrophy

C) Coagulative necrosis

D) Caseous necrosis

E) Apoptosis

Q6) *A 48-year-old woman has a malignant lymphoma involving lymph nodes in the para-aortic region. She is treated with a chemotherapeutic agent which results in the loss of neoplastic cells through fragmentation of individual cell nuclei and cytoplasm. Over the next 2 months, the lymphoma decreases in size, as documented on abdominal CT scans. By which of the following mechanisms has her neoplasm primarily responded to therapy?*

A) Gangrenous necrosis

B) Mitochondrial poisoning

C) Phagocytosis

D) Acute inflammation

E) Apoptosis

Q7) *An 84-year-old man dies from complications of Alzheimer disease. At autopsy, his heart is small (250 gm) and dark brown on sectioning. Microscopically, there is light brown perinuclear pigment with H&E staining of the cardiac muscle fibers. Which of the following substances is most likely increased in the myocardial fibers to produce this appearance of his heart?*

A) Hemosiderin from iron overload

B) Lipofuscin from 'wear and tear'

C) Glycogen from a storage disease

D) Cholesterol from atherosclerosis

E) Calcium deposition following necrosis

Q8) *A 40-year-old woman has the sudden onset of severe abdominal pain. On physical examination she has diffuse tenderness in all abdominal quadrants, with marked guarding and muscular rigidity. She has laboratory findings that include serum AST of 43 U/L, ALT of 30 U/L, LDH 630 U/L, and lipase 415 U/L. An abdominal CT scan reveals peritoneal fluid collections and decreased attenuation along with enlargement of the pancreas. Which of the following cellular changes is most likely to accompany these findings?*

A) Coagulative necrosis

B) Dry gangrene

C) Fat necrosis

D) Apoptosis

E) Liquefactive necrosis

Q9) *Metastatic calcification is :*

A) Causes widespread tissue damage

B) Occurs with normal calcium levels

C) Can be caused by systemic sarcoid osis

D) Occurs in hypothyroidism

E) Is caused by drinking large quantities of milk

Q10) *A 31-year-old primigravida has a difficult delivery of a term infant, with loss of 1500 cc of blood. She has hypotension for 6 hours. Over the next month, her ACTH level decreases. Within the next 3 months, her adrenal glands become decreased in size. This alteration of the adrenals is primarily due to which of the following cellular processes?*

A) Metaplasia

B) Gene mutation

C) Apoptosis

D) Autophagocytosis

E) Coagulative necrosis

Answers :

1- C

2- A

3- C

4- E

5- A

6- E

7- B

8- C

9- C

10- D