Cell injury

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- *Which of the following is an irreversible Nuclear change in cell injury*
- *A. Myelin figures*
- *B. Cell membrane blebs*
- *C. Mitochondrial densities*
- *D. karyorrhexis*
- *E. Cellular swelling*
- *Answer: D*

- *Which of the following patterns of necrosis can be caused by focal bacterial and fungal infections*
- *A. Caseous necrosis*
- *B. Liquefactive necrosis*
- *C. Fibrinoid necrosis*
- *D. Fat necrosis*
- *E. Coagulative necrosis*
- *Answer: B*

- *Accumulation of misfolded proteins in the cytoplasm, activates which of the following enzymes*
- *A. Caspases*
- *B. Glutathione peroxidase*
- *C. Telomerase*
- *D. Superoxide dismutase*
- *E. Bax/Bak activation*
- *Answer: A*

- *Which of the following enzymes reduce oxidative stress*
- *A. Nitric oxide synthase*
- *B. Glutathione peroxidase*
- *C. myeloperoxidase*
- *D. Proteases*
- *Answer: B*

- *Which of the following is caused by GERD (Gastroesophageal reflux disease)*
- *A. Atrophy*
- *B. Hyperplasia*
- *C. Hypertrophy*
- *D. Metaplasia*
- *E. There is no correct answer*
- *Answer: D*

- *Which of the following is caused by an enlarged prostate*
- *A. Atrophy*
- *B. Hyperplasia*
- *C. Hypertrophy*
- *D. Metaplasia*
- *E. There is no correct answer*
- *Answer: B*

- *Ischemia reperfusion injury is directly linked to*
- *A. Anemia*
- *B. Generation of ROS*
- *C. Toxins*
- *D. Necrosis*
- *E. Protein misfolding*
- *Answer: B*

- *Which of the following is caused by vitamin A deficiency*
- *A. Atrophy*
- *B. Hyperplasia*
- *C. Hypertrophy*
- *D. Metaplasia*
- *E. There is no correct answer*
- *Answer: D*

- *Which of the following patterns of tissue necrosis has granuloma formation and the tissue architecture is completely obliterated and cellular outlines cannot be discerned*
- *A. Coagulative necrosis*
- *B. Caseous necrosis*
- *C. Liquefactive necrosis*
- *D. Fibrinoid necrosis*
- *E. Gangrenous necrosis*
- *Answer: B*

- *Which of the following is NOT seen in hypoxia*
- *A. Glycolysis increases*
- *B. Na enters the cells and cause swelling*
- *C. Lactic acid builds up*
- *D. The cell pH increases*
- *E. Proteins denature*
- *Answer: D*

- *Coagulative necrosis is characterized by which of the following*
- *A. Central caseation*
- *B. Preserved tissue architecture initially*
- *C. Caused by bacterial infections*
- *D. Cheesy like material*
- *E. Liquified Center*
- *Answer: B*

- *Lipid peroxidation of cellular and organelle membranes in the process of cell injury is mediated by*
- *A. Membrane pump failure*
- *B. Low PH*
- *C. Direct acting toxins*
- *D. ATP depletion*
- *E. Reactive oxygen species*
- *Answer: E*

- *The hallmark of CCL4 toxicity in the liver is*
- *A. Caseous necrosis*
- *B. Protein accumulation*
- *C. Influx of inflammatory cells*
- *D. Fatty change*
- *E. Endoplasmic reticulum stress*
- *Answer: D*

- *Exposure to a high dose of radiation injury with resultant DNA damage is associated with which of the following cellular responses*
- *A. Bel2 activation*
- *B. Cytochrome c inhibition*
- *C. Caspase inhibition*
- *D. BH3 sensor inhibition*
- *E. Bax/Bak activation*
- *Answer: E*

- *Elimination of self-reactive lymphocytes by apoptosis is mediated by which of the following molecules*
- *A. Bax/Bak*
- *B. Fas-Fas ligand*
- *C. BH3*
- *D. Bel2*
- *E. P53*
- *Answer: B*

- *ONE of the following changes is associated with cellular hypertrophy*
- *A. Protein degradation*
- *B. Increased protein synthesis*
- *C. Autophagy*
- *D. Decreased protein synthesis*
- *E. Decreased function*
- *Answer: B*

- *One of the followings is an REVERSIBLE change in cell injury*
- *A. Myelin figures*
- *B. ER dilation*
- *C. Mitochondrial changes*
- *D. Cellular swelling*
- *E. All answer are correct*
- *Answer: E*

- *The changes in the epithelial lining of the lower esophagus in patients with reflux esophagitis, from squamous epithelium to glandular epithelium are termed*
- *A. Hypertrophy*
- *B. Metaplasia*
- *C. Hyperplasia*
- *D. Dysplasia*
- *E. Atrophy*
- *Answer: B*

- *Which of the following is a typical example of adaptive physiological atrophy*
- *A. Uterine smooth muscle changes in pregnancy*
- *B. Skeletal muscle changes in athletes*
- *C. Endometrial changes after menopause*
- *D. Breast lobules changes during lactation*
- *E. Left ventricular changes in hypertension*
- *Answer: C*

- *One of the following can cause pathologic apoptosis*
- *A. Turnover of gut epithelium*
- *B. Embryogenesis*
- *C. Elimination of self-reactive lymphocytes*
- *D. Involution of endometrium after menopause*
- *E. Viral infections*
- *Answer: E*

- *Restoration of blood flow following myocardial infarction may impose more tissue injury sometimes, the main mechanism directly responsible for this paradoxical effect is?*
- *A. Accumulation of misfolded proteins*
- *B. Decreased ATP production*
- *C. Hypoxia*
- *D. Increased reactive oxygen species formation*
- *E. Decreased PH*
- *Answer: D*

- *Which one of the following could be considered as the “Hallmark of reversible injuries”?*
- *A. Loss of DNA and chromatin structural integrity*
- *B. Cellular enzyme leakage*
- *C. Cellular swelling*
- *D. Pyknosis*
- *E. None of the above*
- *Answer: C*

- *In a pregnant woman her uterus can get bigger while the embryo is growing because the cells there undergo*
- *A. Hypertrophy*
- *B. Atrophy*
- *C. Metaplasia*
- *D. Hyperplasia*
- *E. A and D*
- *Answer: E*

- *Brain ischemia is characterized by*
- *A. Coagulative necrosis*
- *B. Caseous necrosis*
- *C. Liquefactive necrosis*
- *D. Fibroid necrosis*
- *E. Fat necrosis*
- *Answer: C*

- *Which of the following is an example of physiologic hypertrophy*
- *A. Compensation after the removal of part of the liver*
- *B. Cardiac enlargement in aortic valve disease*
- *C. The change of columnar epithelium in cigarette smokers*
- *D. Myometruim during pregnancy*
- *Answer: D*

- *The breast during lactation undergoes*
- *A. Hyperplasia*
- *B. Atrophy*
- *C. Hypertrophy*
- *D. Metaplasia*
- *Answer: A*

- *Which of the following molecules is anti-apoptotic*
- *A. Bax*
- *B. P53*
- *C. BCl-2*
- *D. Bak*
- *E. CytC*
- *Answer: C*

- *Which of the following is typical for apoptosis*
- *A. Disrupted plasma membrane*
- *B. Absence of inflammation*
- *C. Pyknosis and karyorrhexis*
- *D. Leakage of cell components*
- *E. Uncontrolled*
- *Answer: B*

- *Caseous necrosis is most likely found in*
- *A. Peritoneal cavity*
- *B. Tuberculosis*
- *C. Myocardial infarction*
- *D. Pancreatic tissue*
- *E. Hepatic tissue*
- *Answer: B*

- *Which of the following is a direct result of ROS damage*
- *A. Failure of ATP synthesis*
- *B. Lactic acidosis*
- *C. Detachment of ribosomes from ER*
- *D. Lipid peroxidation*
- *E. Repairfusion*
- *Answer: D*

- *Which of the following pigments is found in sites of bruises*
- *A. Carbon*
- *B. Lipofuscin*
- *C. Hemosiderin*
- *D. Melanin*
- *E. None of the above*
- *Answer: C*

- *Which of the following conditions is most likely to be found in alcoholic patients*
- *A. Lipofuscin accumulation*
- *B. Cholesterol esters accumulation*
- *C. steatosis*
- *D. Dystrophic calcification*
- *E. Glycogen Accumulation*
- *Answer: C*

- *After sun exposure, a fair skinned patient noted a brownish discoloration over the skin of her face and dorsum of hands.Which of the following substances most likely accumulated at these sites?*
- *A. Melanin pigment*
- *B. Hemosiderin pigment*
- *C. Lipofuscin pigment*
- *D. Bilirubin pigment*
- *E. Glycogen pigment*
- *Answer: A*

- *“Brown atrophy” is a term that refers to the deposition of which of the following substances*
- *A. Melanin pigment*
- *B. Bilirubin pigment*
- *C. Hemosiderin pigment*
- *D. Lipofuscin pigment*
- *E. Glycogen pigment*
- *Answer: D*

- *Myeloperoxidase enzyme in macrophages catalyzes the conversion of*
- *A. H2O2 to hypochlorite*
- *B. Oxygen to superoxide*
- *C. H2O2 to water*
- *D. H2O2 to hydroxyl group*
- *E. Superoxide to H2O2*
- *Answer: A*

- *Calcium deposition in damaged aortic valves can be explained as*
- *A. Excessive calcium nutritional intake*
- *B. Dystrophic calcification*
- *C. Hypercalcemia*
- *D. Apoptosis*
- *E. Metastatic calcification*
- *Answer: B*

- *In intracellular accumulations, one of the following is an example of accumulation due to inherited enzyme deficiency*
- *A. Anthracosis*
- *B. Steatosis*
- *C. Lysosomal storage diseases*
- *D. Alpha 1 antitrypsin deficiency*
- *E. Silicosis*
- *Answer: C*

- *Dystrophic calcification can be seen in all the following except*
- *A. Calcifications seen in kidney, cardiac muscle and soft tissue*
- *B. Tuberculosis caseous necrosis*
- *C. Calcification in advanced atherosclerosis*
- *D. Carcinoma of the breast*
- *Answer: A*

- *which of the following is a miss-match between a disease and the type of necrosis*
- *A. Myocardial Infarction --- Coagulative Necrosis*
- *B. Brain Infarction --- Gangrenous Necrosis*
- *C. Mycobacterial tuberculosis --- Caseous Necrosis*
- *D. Vasculitis --- Fibrinoid Necrosis*
- *Answer: B*

- *All the followings are true statements regarding Hemosiderin except*
- *A. pigment derived from hemoglobin*
- *B. Often seen in macropahges in bone marrow, spleen and liver*
- *C. Results from the free radical peroxidation of membrane lipids*
- *D. Regarded as endogenous pigment*
- *Answer: C*

- *Which of the following is an example of compensatory hyperplasia*
- *A. Weight-lifters skeletal muscle*
- *B. Liver after partial Hepatectomy*
- *C. Postmenopausal uterus*
- *D. Bronchial mucosa of a smoker*
- *Answer: B*

- *exogenous pigment*
- *A. Lipofusion*
- *B. Melanin*
- *C. Hemosiderin*
- *D. Carbon*
- *Answer: D*

- *in the process of necrosis, a reduction in the size of the nucleus and condensation of nuclear material is know as:*
- *Answer: pyknosis*

- *in which particular order do we see morphological changes of injured tissue*
- *A. Loss of function, cell death, microscopic changes, gross changes*
- *B. Loss of function, microscopic changes, cell death, gross changes*
- *C. Gross changes, loss of function, cell death, microscopic changes*
- *D. Cell death, loss of function, microscopic changes, gross changes*
- *Answer: A*

- *intrinsic pathway of apoptosis is initiated by all the following except*
- *A. Loss of survival signal*
- *B. DNA damage*
- *C. protein misfolding*
- *D. type 1TNF receptor*
- *Answer: D*

- *Russell bodies are seen in*
- *A. Lymphocytes*
- *B. Neutrophils*
- *C. Macrophages*
- *D. Plasma cell*
- *Answer: D*

- *Which of the following types of necrosis is grossly opaque and chalky white*
- *A. Coagulation necrosis*
- *B. Liquefaction necrosis*
- *C. Caseous necrosis*
- *D. Fat necrosis*
- *E. Gangrenous necrosis*
- *Answer: D*

- *wrong about Metaplasia*
- *Answer : already differentiated cells . (It's reprogramming of stem cells)*

- *The adaption of regular exercise on skeletal muscle:*
- *Answer: hypertrophy*

- *Barrett esophagus (The change in esophageal mucosa from squamous to columnar epithelium in patient with chronic reflux):*
- *Answer: metaplasia*

- *most common cause of cell injury:*
- *Answer: hypoxia*

- *coagulative necrosis caused by:*
- *Answer: sudden ischemia*

- *Helps in stimulation of ubiquitin-proteasome system*
- *Answer: atrophy*

- *all of the following cause atrophy except:*
- *Answer: Hypertension*

The End