

**FINAL TERM ASSIGNMENT**

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**Section "B"**

**Q NO.1: circulating cell in acute inflammation:**

- 1) neutrophils
- 2) monocytes
- 3) eosinophilic
- 4) lymphocytes
- 5) basophilic
- 6) platelets

**= characteristics of acute inflammation**

- ✚ Short duration
  - ✚ Lasting from a few minutes up to a few days
  - ✚ Formation of inflammatory exudates
  - ✚ Predominately neutrophils leukocytes accumulation..
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**Q NO.2: "INFRACTION AND ITS TYPES "**

**"Infraction":** The formation of a localized area of iachemic necrosis with in tissue of organs due to impaired arterial supply or the venous drainage.

The necrosis area is called "infract".

An extremely important cause of clinical illness.

- ✚ Myocardial infraction
- ✚ Cerebral infraction

### ***Types***

#### **1) "WHITE INFRACTION"**

- + Arterial occlusion
- + Solid compact organs
- + Few collateral circulation (spleen, kidney, heart, brain, etc.)
- + Morphology
- + Gross
- + Dull pall, dry wedge shaped necrotic lesion
- + Hemorrhagic zone surrounding

#### **2) "RED INFRACTION"**

- + Arterial occlusion
- + Venous occlusion
- + Loose tissue
- + Dual circulation: lung, small intestine

**Example:** brain infraction (liquefied necrosis)

#### **3) "SEPTIC INFRACTION"**

- + Bacteria containing emboli
- + May form abscess and pus.

#### **(MAST CELL)**

- + Found in both acute and chronic inflammation.
  - + Express surface receptor that binds to Fc protein IGE. (when certain antigen binds with IGE)
  - + The mast cells degranulate release histamine.
  - + Granules release histamine and prostaglandins during allergic reactions to food, insect venom, or drugs, sometimes with catastrophic results (e.g. anaphylactic shock).
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**Q NO.3: "the cell having proliferating capacity"?**

- 1) **Labile cells:** continuously dividing cells these are proliferative through out life and replacing those cell that are continuously dying.

**Example:** squamous stratified epithelium cells are skin, oral cavity, vagina and cervix.

- + Columnar epithelium of GIT, uterus and fallopian tubes...
- + Hematopoietic cells of bone marrow.

- 2) **Stable cells:** this cell have ability to regenerate but in normal conditions don't actively replicate. However they can undergo rapid divisions in responses to a variety of stimulus or activation stimulus. Low proliferating ability.

- + Regeneration can occur in labile cells and stable cells.

**Example:** paranchymal cell of liver, kidney and pancreas

- + Mesenchymal cell e.g smooth muscle, cartilage, connective tissues, fibroblasts and vascular endothelial cells.

- 3) **Permanent cell:** these cell are capable of division and regeneration. If they are destroyed, the loss is permanent and repair occurs only by the proliferation of connective tissue s ( scar formation)

**Example:**

- 1) Nerve cells (neuron)
- 2) Cardiac muscle
- 3) Skeletal muscle
- 4) Regeneration and repair also depends on extent of injury and also on inflammation

**Steps of repair**

- + Formation of transitional tissue
- + Wound contraction

***Characteristics of benign tumour***

- + Well differentiated
- + Low mitosis

- + No necrosis
- + Slow growing
- + Well demarcated
- + Encapsulated
- + Do not infiltrate or metastasize
- + May not recur
- + Low dysplasia

**Q NO.4: hypovolumic shock**

The severe bleeding or loss of body fluids from trauma, burns, surgery or dehydration from severe nausea and vomiting. blood pressure decreases, thus blood flow is reduced to cell, tissue and organs.

+ **Condition**

- 1) **Hemorrhagic**
  - + GI bleed
  - + Trauma
  - + Massive hemoptysis
  - + AAA rupture
  - + Ectopic pregnancy, post-partum bleeding
  
- 2) **Non- hemorrhagic**
  - + Vomiting
  - + Diarrhea
  - + Bowel obstruction ,pancreatitis
  - + Burn
  - + Environmental dehydration

**Q NO.5: "Edema"**

**DEF:** "Abnormal and excess amount of fluid in the interstitial tissue spaces is called edema".

-  Fluid connections in different body cavities may have various designations
-  Hydrothorax
-  Hydropericarium
-  Hydroperitonium
-  Anasarca is severe, extreme generalized edema with profound subcutaneous tissue swelling.

**“Types of edema”**

- 1) **Dependent edema:** prominent feature of congestive heart failure, particularly of the right ventricle
- 2) **Renal edema:** edema as a result of renal dysfunction or nephritic syndrome is generally more severe than cardiac edema and affects all parts of the body equally.
- 3) **Pitting edema:** finger pressure over subcutaneous tissue displaces the interstitial fluid and leaves a finger-shaped depression.
- 4) **Pulmonary edema:** most typically seen in the setting of left ventricular failure.

1. **Venous thrombosis**
  -  Deep vein thrombosis
  -  Portal vein thrombosis
  -  Renal vein thrombosis
  -  Jugular vein thrombosis
  -  Budd chiari syndrome
  -  Paget-schoetter disease
  -  Cerebral venous sinus thrombosis
2. **Arterial thrombosis**
  -  Stroke
  -  Myocardial infarction
  -  Other sites

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"PAPER,, ENDED"