1) **Mononuclear phagocytes:**
   - Are the predominant cells in three day old wounds
   - Are common in liver, spleen and pancreas
   - Produce fibroblast growth factor
   - Secrete interferon-g
   - Have a half-life of one day *

2) **Regarding acute inflammation:**
   - Occurs in apoptosis
   - Increased vascular permeability resulting in increased colloid osmotic pressure and reduced hydrostatic pressure
   - Leukocyte migration through blood vessels is required by binding to selectin and integrin receptors
   - Causes arteriole dilation but not venule dilation *
   - Typically produces transudate

3) **The epithelioid cells of follicular granulomas are:**
   - Reticular
   - Fibroblasts
   - **Modified macrophages** *
   - Plasma cells
   - Lymphocytes
4) **Leukocyte extravasation occurs in the following order:**
- Activation, rolling, transmigration, adhesion
- Rolling, activation, adhesion, immigration
- Adhesion, rolling, activation, transmigration
- Rolling, activation, adhesion, transmigration *
- Transmigration, adhesion, activation, rolling

5) **Chronic inflammation:**
- Is characterized by prolonged duration and usually results in resolution *
- Is associated with structural changes in microvasculature leading to exudation of proteins Is characterized by angiogenesis
- Features infiltration by polymorphonuclear cells, mast cells and lymphocytes
- Is usually associated with markedly symptomatic response to persistent infection by certain microorganisms

6) **The alternative pathway of complement activation can be triggered by:**
- IgG antigen-antibody complexes
- Properdin
- **Microbial surfaces***
- Lysosomal proteases
- C5-9 Membrane attack comple

7) **Which is not chemotactic?**
- Histamine *
- C5a
- Leukotriene B4
- Bacterial polypeptides
- Cytokines
8) **Cellular events in acute inflammation include all of the following EXCEPT**: 
- Redistribution of preformed adhesion molecules to the cell surface of leukocytes 
- Adhesion and transmigration of leukocytes to endothelium 
- Leukocyte activation 
- **Margination of macrophages to vessel walls** * 
- Extracellular release of lysosomal enzymes and products of arachidonic acid metabolism

9) **Granulomatous inflammation**: 
- May sometimes be a component of the acute inflammatory response 
- Indicates the presence of tuberculosis 
- Consists in part of microscopic aggregates of transformed lymphocytes 
- Is always associated with the presence of giant cells 
- **May result from non-immune mechanisms** *

10) **With regard to the role of complement in the acute inflammatory response, which is INCORRECT?** 
- C5a is a powerful chemotactic agent for neutrophils, monocytes and eosinophils 
- C5a increases leukocyte adhesion to endothelium by activating leukocytes 
- C3a and C5a are called anaphylatoxins because they cause mast cell degranulation 
- **C3a activated the lipooxygenase pathway in leukocytes** * 
- C3 and C5 can be activated in inflammatory exudates by lysosomal enzymes

11) **Granulomatous inflammatory reactions**: 
- can be caused by syphilitic infections 
- are a type II hypersensitivity reaction 
- predominantly contain eosinophils with a modified “epithelial like” appearance 
- are surrounded by natural killer cells 
- are not associated with inert foreign bodies
12) Leukotrienes play a role in all of the following EXCEPT:
   - Chemotaxis
   - Vasoconstriction
   - Platelet aggregation *
   - Bronchospasm
   - Increased permeability

13) Platelet activating factor : 
   - Is produced by platelets *
   - Induces bronchodilation
   - Increases vascular permeability
   - Decreases leukocyte adhesion
   - Is not produced by mast cells

14) A preformed mediator of inflammation is:
   - Prostaglandin
   - Histamine *
   - Leukotriene
   - Nitric oxide
   - Platelet activating factor

15) regarding chronic inflammation all of the following are true EXCEPT :
   - it can be caused by persistent infections
   - it primarily involves tissue destruction *
   - it may contribute to the formation of atherosclerosis
   - it involves mononuclear inflammatory cells
   - it can be caused by exposure to toxic agents

16) In acute inflammation:
   - A hallmark is reduced vascular permeability
   - Vasodilation is a late manifestation
   - Extravasation involves movement of leukocytes from interstitial tissue
   - to the vessel lumen
   - Chemotaxis is migration of leukocytes along a chemical gradient *
   - Selectins have a minor role
17) In acute inflammation which event occurs first:
- Arteriolar dilatation *
- Arteriolar constriction
- Edema
- Leucocyte migration
- Blood flow stasis

18) Regarding leucocyte adhesion and transmigration during acute inflammation:
- There is reduced binding of integrins
- Transmigration is mediated by E-selectin
- Leukocyte adhesion deficiency type II is associated with resistance to bacterial infection
- Leukocyte rolling is reduced
- There is initial redistribution of pre-formed adhesion molecules to the cell surface *

19) Which of the following statements regarding prostaglandins is INCORRECT?
- Prostacyclin and thromboxane A2 are synthesized from the same precursor
- Leukocyte adhesion is mediated by thromboxane A2 *
- Vasodilation is mediated by PGE
- Vasoconstriction is mediated by LTD4
- Chemotaxis is mediated by HETE

20) Vascular permeability in inflammation is increased by:
- C3b and C3bl
- C3b
- C3a and C5a *
- C5-9
- C3bl
21) With regard to the acute inflammatory response, which is the most common mechanism of vascular leakage?

- Endothelial cell contraction*
- Junctional retraction
- Direct injury
- Leukocyte-dependent leakage
- Regeneration endothelium

Collected by: Ahmad Osama Al-Masri

Good Luck