

PATHOLOGY

1. Which of the following is true regarding toll like receptors?

- a-They circulate in the blood**
- b-Collectins are examples**
- c-They are essential for chemotaxis**
- d-They recognize PAMPs**

Answer D

2. Which of the following is true regarding inflammation?

- a-It is essential for body survival**
- b-Strong inflammatory responses are always good**
- c-Non-vascularised tissues can get inflamed**
- d-There is no repair step in inflammation**

Answer A

3. Opsonization is best described as:

- a-Recognizing the pathogen**
- b-Coating the microbe to enhance phagocytosis**
- c-Following a specific chemical gradient**
- d-Activation of the complement system**

answer B

4. Which of the following statements is true regarding steroids?

- a-They are a potent inhibitor of phospholipases**

b-They are inhibitors of COX-1

c-They induce immunity

d-They are considered as pro-inflammatory drugs

Answer A

5. TNF is a:

a-Cytokine

b-Chemokine

c-Lipid

d-Complement protein

Answer A

6. -Which of the following cells and molecules are involved in asthma?

a-IgE and eosinophils

b-Cytokines

c-Macrophages and neutrophils

d-Complement proteins

answer A

7. Stasis and Erythema are caused by:

a-Leukocytes

b-Expression of selectins

c-PMN accumulation

d-Histamine as a vasodilator

answer D

8. Weak adhesion to the endothelium is mediated by:

a-LFA-1

b-Integrins

c-P and E selectins

d-PECAM-1

answer C

9. Which of the following is true regarding Nitric Oxide?

a-Acts as a vasoconstrictor

b-Produced without the need of enzymes

c-A soluble gas derived from arginine

d-Its concentration is always constant

answer C

10. Acute phase proteins are best described as:

a-Their levels are used to diagnose prolonged chronic inflammation

b-C-reactive protein is the only example

c-Specific indicators of certain diseases

d-Non-specific indicator of acute inflammation

answer D

11. What causes effusion of fluids in the first stages of vascular phase?

a-Endothelial injury

b-Leukocytes recruitment

c-Retraction of endothelium via mediators

d-Margination

answer C

12. In the cellular phase of inflammatory response, the later strong adhesion of leukocytes to endothelium is mediated by:

a. Integrin (ICAM-1)

b. CD31 (PECAM-1)

c. P and E Selectins

d. Interleukins and Tumor necrosis factor (ILs and TNF)

e. Alpha and Beta Chemokines

answer A

13. The strong anti-inflammatory action of steroids is mediated by:

a. Stimulation of histamine production

b. Stimulation of lipoxygenase enzyme

c. Inhibition of cyclooxygenase-1 (Cox-1)

d. Inhibition of phagocytosis

e. Inhibition of phospholipase leading to decreased production of leukotrienes and prostaglandins

answer E

14. A tissue biopsy from the colon for one of your patients who suffered from diarrhea was taken. The pathologist calls you and is worried about a parasitic infestation. The most likely inflammatory cellular infiltrate that he observed would be:

a. Lymphocytes

b. Plasma cells

c. Eosinophils

d. Macrophages

e. Eosinophils, fibroblasts and tissue macrophages.

Answer C

15. The process of coating microbes to enhance their phagocytosis is defined as:

a. Apoptosis

- b. Opsonization**
- c. Diapedesis**
- d. Effective phagocytosis**
- e. Transmigration**

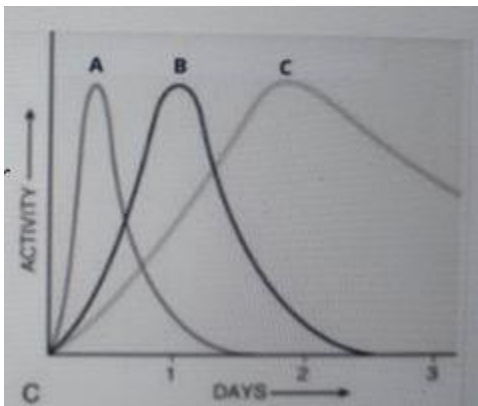
answer B

16. Which mediator is synthesized from arginine by an enzyme?

- a. Nitric oxide synthase**
- b. Nitric oxide**
- c. Hydrogen peroxide**
- d. Oxygen super-oxide**
- e. Myeloperoxidase**

answer B

17.) Which one of the following statements is correct?



- a. Curve A represent the macrophages and lymphocytes cellular infiltration phase**
- b. Curve B represents the initial neutrophilic infiltration phase**
- c. Curve A represents the initial cellular phase**
- d. Curve C represents the initial edematous phase**
- e. Curve B represents the initial vascular phase**

answer B

18. Coating microbes to enhance phagocytosis is called?

- A. Phagosome formation**
- B. Engulfment of microbes**
- C. Effective intracellular killing**
- D. Chemotaxis**
- E. Opsonization**

Answer: E

19. In contrast to chronic inflammatory response; acute inflammatory response is characterized by?

- A. Slower time to be noticed**
- B. More prominent local and systemic manifestations**
- C. More tissue damage and fibrosis**
- D. Tissue infiltration by plasma cells**
- E. Tissue infiltration by eosinophils**

Answer: B

20. Which mediator mainly cause erythema and stasis from blood vessels?

- A. Expression of selectins**
- B. Histamine**
- C. Leukocytes**
- D. PMN accumulation**

Answer: B

21. Which one of the following best describes the vascular leakage in the early vascular phase of acute inflammation?

- A. It is an early phase due to retraction of endothelial cells***
- B. It is due to increased intravascular oncotic pressure***
- C. It is due to direct endothelial cell injury by adhering neutrophils.***
- D. The process is best called transcytosis induced by growth factors***
- E. It is mediated by blockage of the lymphatic channels***

Answer: A

22. Which of the following is considered the strongest chemoattractant?

Answer: C5a