

GENESIS

(Post Graduation Medical orientation Centre)

Exam : Inflammation_Foundation_Fcps_2020

Class/Chapter :

Question 26 to End is Based on Single Answers

Total Mark : 100
Pass Mark : 70

Time : 5400 Min
Date : 2020-10-23

1. Regarding inflammation, following are true-

- a). a) Degranulation of mast cells leads to release of heparin
- b). b) Systemic response includes a decrease in the circulating levels of CRP
- c). c) An abundance of macrophages is common in tuberculosis
- d). d) Caseation does not occur in sarcoidosis
- e). e) Chronic inflammation may be associated with increased levels of IgG

TFTFT

4. Suppurative inflammation -

- a). a) Is a consequence of infarction
- b). b) Is seen in staphylococcal infection
- c). c) Contains polymorphs
- d). d) Is the early stage of gangrene
- e). e) Usually heals by secondary intention

FTTFT

6. Histamine is secreted from:

- a). a) Mast cells
- b). b) Neutrophils
- c). c) Basophils
- d). d) Macrophages
- e). e) Platelets

TFTFT

8. Systemic effects of inflammation includes -

- a). a) Fever
- b). b) Low ESR
- c). c) Anaemia
- d). d) Primary amyloidosis
- e). e) Eosinophilic leukocytosis

TFTFT

10. Tissue damage in chronic inflammation is caused by (Non Residency-08)

- a). a) The macrophages
- b). b) O₂ derived free radicals
- c). c) Metalloproteinases
- d). d) Offending agents
- e). e) Prostaglandins

TTFTF

13. Cell types found in an established granuloma include?

- a). a) Histiocytes
- b). b) Neutrophils
- c). c) Activated T lymphocytes
- d). d) Langerhans giant cells
- e). e) Epithelioid cells

TTFFT

2. The following cell types are involved in acute inflammation

- a). a) Polymorphonuclear leucocytes
- b). b) Lymphocytes
- c). c) Endothelial cells
- d). d) Epithelioid cells
- e). e) Mast cells

TFTFT

3. Exudates

- a). a) Has low protein content than plasma
- b). b) Contains fibrinogen
- c). c) Has high specific gravity
- d). d) Has no tendency to coagulate
- e). e) Contain plenty of cells mostly inflammatory

FTTFT

5. The following are the chemical mediators involved in acute inflammation:

- a). a) Complement
- b). b) Histamine
- c). c) Insulin
- d). d) Bradykinin
- e). e) Lymphokine

TTFTF

7. Synthesis of nitric oxide requires

- a). a) NADPH
- b). b) ATP
- c). c) Molecular oxygen
- d). d) Nitric oxide synthase
- e). e) Arginine

TFTTT

9. CRP is useful marker to indicate active disease in

- a). a) SLE
- b). b) Rheumatoid arthritis
- c). c) Ankylosing spondylitis
- d). d) Systemic sclerosis
- e). e) Reactive arthritis

FTTFT

11. Which are the granulomatous inflammation

- a). a) Fungal infection
- b). b) SLE
- c). c) Mycobacterium
- d). d) Cat scratch disease
- e). e) Rheumatoid fever

TFTTF

12. In granulomatous inflammation, epithelioid cells

- a). a) Are a reaction to toxic, non-degradable matter
- b). b) Consist of rounded cells in close contact
- c). c) Are aggregated macrophages and plasma cells
- d). d) Are rich in secretory granules
- e). e) Have high phagocytic action

FFFTF

14. Giant cells are characteristically found in the pathological lesions associated with the following disease

- a). a) Actinomycosis
- b). b) Schistosomiasis
- c). c) Primary biliary cirrhosis
- d). d) Leprosy
- e). e) Hodgkin's disease

FFTFT

15. Vascular changes in acute inflammation

- a). a) Vasodilatation is the earliest manifestation
- b). b) Increased permeability of the microvasculature
- c). c) Haemodilution occur?
- d). d) Neutrophils accumulate along the vascular endothelium
- e). e) New capillary bed opens

FTFTT**17. During inflammation, formation of endothelial gaps in venules is mediated by**

- a). a) Vascular endothelium derived growth factor
- b). b) Toxins
- c). c) Leukotrienes
- d). d) Histamine
- e). e) Bradykinin

FFTTT**19. Amyloid reacts with the following stains**

- a). a) Thioflavine
- b). b) Fluorescein isothiocyanate
- c). c) Methyl violet
- d). d) Methyl green
- e). e) Congo red

TFFTT**21. Cells of chronic inflammations are**

- a). a) Monocyte
- b). b) Mast cell
- c). c) Platelet
- d). d) Eosinophil
- e). e) Eutrophil

TTFTT**23. Resident tissue macrophage**

- a). a) Derived from blood monocyte
- b). b) Derived from yolk sac & fetal liver
- c). c) Derived from hematopoietic stem cell
- d). d) Takes part in inflammation
- e). e) Seen in skin intestinal tract

TTTTF**25. Complement system**

- a). a) Are soluble proteins
- b). b) Deficiency of terminal components of complement predisposes to neisseria infections
- c). c) C3a acts as opsonin
- d). d) C5a activates the cyclo-oxygenase pathway of AA metabolism
- e). e) C3b & iC3b both promote phagocytosis

TTFFT**27. Granulomatous inflammation does not suit with;**

- a). a) Is a type IV hypersensitivity response)
- b). b) Shows dominant infiltration of tissue by plasma cells.
- c). c) Contains epithelioid cells derived from tissue histiocytes.
- d). d) Occurs in sarcoidosis.
- e). e) Is a feature of mycobacterial infection

BBBBB**29. A woman who is allergic to cats visits a neighbor who has several cats. During the visit, she inhales cat dander, and within minutes, she develops nasal congestion with abundant nasal secretions. Which of the following substances is most likely to produce these findings?**

- a). a) Bradykinin
- b). b) Complement C5a
- c). c) Histamine
- d). d) Interleukin-1
- e). e) Phospholipase C

CCCCC**16. Acute inflammation comprises:**

- a). a) Alteration in vascular caliber
- b). b) It is a proliferative lesion
- c). c) Emigration of the leucocyte from the microcirculation
- d). d) Intravascular accumulation of leucocyte
- e). e) Structural changes in the microvasculature

TTFTT**18. Features of systemic inflammatory response syndrome are**

- a). a) Temperature > 38.00 C
- b). b) Respiratory rate > 20/min
- c). c) Heart rate > 90/minutes
- d). d) White cell count > 12x10⁹/l
- e). d) Blood glucose < 3 mmol/l

TTTTF**20. The efficiency of phagocytosis is enhanced by:**

- a). a) IgM
- b). b) C5a
- c). c) Mannose binding lectin
- d). d) IgG
- e). e) C3b

FFTTT**22. Classical activation of macrophage is responsible for**

- a). a) Fibrosis
- b). b) Inflammation
- c). c) Phagocytosis
- d). d) Tissue repair
- e). e) Anti-inflammation

FTTFF**24. Microorganisms which have undergone phagocytosis are killed by-**

- a). a) Lecithinase
- b). b) Lysozyme
- c). c) Lysosomal enzyme
- d). d) Lymphokine
- e). e) Hydrogen peroxide)

FTTFT**26. A macrophage is a type of cell with diverse functions and plays a significant role in adaptive immunity, wound healing and muscle regeneration. Which one of the following statements is correct of macrophages?**

- a). a) They are derived from blood lymphocytes
- b). b) They are capable of phagocytosis
- c). a) They have a shorter survival than neutrophils outside the circulation
- d). b) They produce immunoglobulins
- e). c) They do not multiply

BBBBB**28. Regarding cyclooxygenase pathway:**

- a). a) Two COX-1 & COX-2
- b). b) Produced prostaglandins & lipoxin
- c). c) COX-2 responsible for hemostatic function
- d). d) COX-1 responsible for hemostatic function
- e). e) Inhibitors of this decrease Pain

TTFTT**30. A 6-year-old boy has a history of repeated pyogenic infections. He had normal antibody responses following childhood immunisations and showed normal recovery from chickenpox and measles. Decreased numbers or functional defects in which of the following cells best explains the cause of his repeated pyogenic infections?**

- a). a) B lymphocytes
- b). b) Eosinophils
- c). c) Macrophages
- d). d) Neutrophils
- e). e) T lymphocytes

DDDDD

31. Platelet-derived growth factor binds to its receptor, activating cell growth. The receptor—growth factor complex uses which of the following mechanisms to signal to the cell to divide?

- a). a) Activation of tyrosine kinase
- b). b) Binding of GTP to a G protein
- c). c) Binding to DNA
- d). d) Increase in intracellular calcium concentration
- e). e) Opening of an ion channel

AAAAA

34. A 64-year-old man with a history of inhaling silica dust for many years in his job has become increasingly dyspnoeic over the last 3 years. A chest X-ray now shows increased intersitital markings and nodules ranging in size from 1 cm to 3 cm in the parenchyma) His pulmonary problems are most likely to be caused by which of the following inflammatory processes?

- a). a) Foreign-body giant-cell formation
- b). b) Histamine release by mast cells
- c). c) Neutrophilic infiltration with release of leukotrienes
- d). d) Production of immunoglobulin by plasma cells
- e). e) Release of growth factors by macrophages

EEEE

36. A healthy 25-year-old man with no major medical problems says that he breaks out with blotchy areas of erythema that are pruritic over the skin of his arms, legs and trunk within an hour every time he eats strawberries, this is followed by diarrhoea. These problems abate within a few hours, and physical examination reveals no abnormal findings. Which of the following Immunological abnormalities is he most likely to have?

- a). a) Cell-mediated hypersensitivity
- b). b) Hypergammaglobulinaemia
- c). c) Immune complex deposition
- d). d) Localised anaphylaxis
- e). e) Release of complement C3b

DDDDD

38. Interleukin-1 (IL-1) is one of the first cytokines ever described. Its initial discovery was as a factor that could induce fever. Which of the following statements about interleukin-1 is correct?

- a). a) It increases the expression of adhesion factors on endothelial cells
- b). b) It is a lipopolysaccharide
- c). c) It is an anti-inflammatory cytokine
- d). d) It is produced by endothelial cells
- e). e) It suppresses bone marrow cells

AAAAA

32. Which of the following cytokines is produced by T lymphocytes that express class II MHC antigen?

- a). a) Alpha interferon
- b). b) Beta interferon
- c). c) Gamma interferon
- d). d) Interleukini
- e). e) Tumour necrosis factor

CCCCC

33. Cultured sputum from a 55-year-old man with a 4-day history of cough and fever grew Streptococcus pneumoniae. Clearance of these organisms from the lung parenchyma would be most effectively accomplished through generation of which of the following substances by the major inflammatory cell type responding to this infection?

- a). a) Hydrogen peroxide
- b). b) Kallikrein
- c). c) Leukotriene
- d). d) Platelet-activating factor
- e). e) Prostaglandins

AAAAA

35. A sexually active 21yrs old man has experienced pain when passing urine of 3 days. Urethritis is suspected and aneisseria gonorrhoeae is cultured) Numerous neutrophils are present in a smear of the exudate from the penile urethra) These neutrophils are most likely to have undergone diapedesis to reach the organisms as a consequence of release of which of the following chemical mediators?

- a). a) Bradykinin
- b). b) Complement C5a
- c). c) Hageman factor
- d). d) Histamine
- e). e) Prostaglandin

BBBBB

37. A 28-year-old nurse has had a chronic cough with fever for 2 months. On physical examination, her temperature is 37.9 C. A chest X-ray reveals a diffuse bilateral reticulonodular pattern. A transbronchial biopsy is performed. On microscopic examination of the biopsy, focal areas of inflammation containing epithelioid macrophages, Langhans giant cells and lymphocytes are found. These findings are most typical for which of the following immunological responses?

- a). a) Graft-versus-host disease
- b). b) Polyclonal B-cell activation
- c). c) Type I hypersensitivity
- d). d) Type II hypersensitivity
- e). e) Type IV hypersensitivity

EEEE

39. A histopathology report describes the presence of granulation tissue in a lesion. Which of the following features is characteristic of granulation tissue?

- a). a) Giant cell and fibroblasts
- b). b) Giant cells and lymphocytes
- c). c) Giant cells, plasma cells and lymphocytes
- d). d) Neutrophils and necrotic tissue
- e). e) Proliferation of new capillaries, with fibroblasts and new collagen formation

EEEE

40. A 42-year-old woman with end-stage renal disease is prepared to receive a kidney from her husband. Assays for HLA antigens indicate that the donor and recipient are not 100% compatible. The patient is given an immunosuppressive drug regimen. Three months after transplantation, laboratory tests indicate that the patient's kidney function is declining. There is a rapid decrease in urine output and the urine contains blood cells and a high level of protein. The transplanted kidney is enlarged and tender. After treatment with antilymphocyte globulin, the patient's critical condition is reversed. What type of graft did this patient receive?

- a). a) Allograft

- b). b) Autograft
- c). c) Isograft
- d). d) Syngraft
- e). e) Xenograft

AAAAA

41. A 26-year-old woman with blood group type A, Rh-negative, is pregnant with her second child. Her first child is Rh-positive, and the father is also Rh-positive. The second child is most likely to be at risk of developing:

- a). a) An autoimmune disease
- b). b) ABO incompatibility
- c). c) Drug-induced haemolytic anaemia
- d). d) Neutropenia
- e). e) Haemolytic disease of the newborn

EEEEE

43. Which one suppresses acute inflammation?

- a). a) TGF- α
- b). b) IL-17
- c). c) PDGF
- d). d) TGF- β
- e). e) VEGF

DDDDD

45. Which one is a special cause of increased permeability in chronic inflammation?

- a). a) Immediate prolong response
- b). b) Immediate sustained response
- c). c) Leakage from new blood vessel
- d). d) Increased transcytosis
- e). e) Leukocyte mediated injury

CCCCC

48. Which cells are widely distributed in both acute & chronic inflammation of connective tissue

- a). a) Eosinophils
- b). b) Basophils
- c). c) Mast cells
- d). d) Macrophages
- e). e) Lymphocytes

CCCCC

42. A 58-year-old farmer with a hydatid cyst in the liver was admitted for elective surgery to remove the cyst. Which of the following white blood cell types will be raised in this patient's preoperative full blood count?

- a). a) Basophils
- b). b) Eosinophils
- c). c) Lymphocytes
- d). d) Monocytes
- e). e) Neutrophils

BBBBB

44. Which one is not a cause of acute inflammation?

- a). a) Infection
- b). b) Immune mediated inflammatory disease
- c). c) Trauma
- d). d) Necrosis
- e). e) Foreign body

BBBBB

46. Which is called exogenous pyrogen

- a). a) IL-I
- b). b) TNF
- c). c) LPS
- d). d) PGF2
- e). e) PGF2 μ

CCCCC

47. Central molecule of complement pathway

- a). a) C5d
- b). b) C5b
- c). c) C4a
- d). d) C4
- e). e) C3

EEEEE

49. Foamy macrophage present in

- a). a) Soft tubercle
- b). b) Hard tubercle
- c). c) Lepromatous leprosy
- d). d) Tuberculoid leprosy
- e). e) Tuberculoid leprosy

CCCCC

50. Naked granuloma is formed in which disease

- a). a) Gumma
- b). b) Tubercle
- c). c) L. leprosy
- d). d) T. leprosy
- e). e) Sarcoidosis

EEEEE