

Questions for the module test 2

1. Inflammation: definition, classification, etiology, phases. Recognition of microbes and damaged cells. Outcomes of acute inflammation.
2. Primary and secondary alteration in inflammation: difference, local metabolic changes at the site of inflammation.
3. Cell-derived mediators of inflammation: classification, effects, role in local and systemic symptoms.
4. Plasma-derived mediators of inflammation: classification, effects, role in local and systemic symptoms.
5. Leukocytes recruitment to site of inflammation: adhesion, transmigration and chemotaxis.
6. Phagocytosis: definition, stages, chemoattractants, opsonization, role in local and systemic response. Neutrophil extracellular traps.
7. Vascular reactions in acute inflammation. Blood flow changes, phases and mechanisms.
8. Exudation. Mechanisms of inflammatory edema. Types and contents of exudates.
9. Tissue repair: cell and tissue regeneration, connective tissue deposition, abnormalities in tissue repair.
10. Five classic local symptoms of inflammation: pathogenesis.
11. Systemic symptoms of inflammation: pathogenesis.
12. Wound healing: phases, mechanisms, clinical features.
13. Fever: definition and classification. Pyrogens: origin, types and mechanism of action. Fever stages and thermoregulation at the different stages of fever.
14. Role of fever. Positive and negative effects of fever. Differences between fever and hyperthermia. Principles of antipyretic therapy.
15. Hypothermia: definition, causes, pathophysiology, stages, clinical aspects.
16. Hyperthermia: definition, causes, pathophysiology, stages, clinical aspects.
17. Immunodeficiency: definition, classification. Primary immunodeficiency: classification, clinical presentation, consequences.
18. Secondary immunodeficiency: causes, clinical manifestation, diagnosis. HIV/AIDS-infection.
19. Hypersensitivity reactions, type I. Stages, mediators, mechanisms. Clinical manifestation, examples.
20. Hypersensitivity reactions, type II. Stages, mediators, mechanisms. Clinical manifestation, examples.
21. Hypersensitivity reactions, type III. Stages, mediators, mechanisms. Clinical manifestation, examples.
22. Hypersensitivity reactions, type IV. Stages, mediators, mechanisms. Clinical manifestation, examples.
23. Autoimmune diseases: definition, classification, etiology, pathogenesis. Mechanisms of tissue injury: cell-mediated, immunoglobulin-mediated, role of innate immune response. Examples.
24. Rejection of tissue transplants: causes, mechanisms, clinical manifestations.
25. Neoplasia: definition, characteristics of benign and malignant neoplasms. Cancerogenic agents (etiology). Stages of malignant transformation: initiation, promotion, progression.
26. Mechanisms of malignant transformation: role of genetics and epigenetics alterations. Proto-oncogenes, oncogenes, tumor suppressor genes.
27. Hallmarks of cancer: monoclonality, genomic instability, immortalization, limitless replication, avoiding immune destruction, cancer-enabling inflammation, metabolic alterations, angiogenesis.
28. Invasion and metastasis: routes of metastasis, stages, mechanisms.
29. Clinical aspects of neoplasia: clinical manifestations, laboratory diagnosis of cancer

30. Chromosomal disorders: examples with clinical manifestations and karyotype. Multigenic (polygenic) disorders.: examples with clinical manifestations.
31. Autosomal dominant disorders, X-linked disorders: examples with clinical manifestations.
32. Autosomal recessive disorders, single-gene disorders with nonclassic inheritance: examples with clinical manifestations.