EXAMINATION QUESTIONS ON PATHOPHYSIOLOGY

FOR 2ND YEAR STUDENTS OF THE FACULTY OF DENTISTRY

I.GENERAL NOSOLOGY

1. Tasks, methods and structure of pathophysiology The importance of experiment in the development of pathophysiology and clinical medicine.

2. Structural components of the disease: pathological reaction, pathological process, typical pathological process, pathological condition, "vicious circle", clinical nosology.

3. Modern definition of the disease. Views on the disease and its symptoms (Sidengam, I.P.Pavlov).

4. Periods and outcomes of the disease. Mechanisms of recovery and the role of the central nervous system in them.

5. The concept of etiology and pathogenesis. Features of the etiology and pathogenesis of diseases of the dental apparatus and oral mucosa. The main hypotheses of the concept of the theory of etiology and pathogenesis of periodontal diseases.

6. Terminal states. The mechanism of death. Intensive care and intensive care.

7. Hereditary forms of pathology, their differences from congenital and acquired forms. Mutagens, types of mutation, the importance of ecology in the occurrence of mutations. Mechanisms of genetic hereditary pathology. Molecular hereditary diseases and predisposition.

8. Dental manifestations of hereditary diseases and syndromes.

II. TYPICAL PATHOLOGICAL PROCESSES.

A. Pathophysiology of typical peripheral circulatory disorders.

9. Local anemia. Causes and mechanism of development, the importance of collateral circulation. Heart attacks, their mechanisms.

10. Arterial hyperemia, causes, mechanisms of development. The role of overload in periodontal and changes in regional hemodynamics.

11. Venous hyperemia, causes, mechanism of development, features of microcirculation. Consequences in dental pathology.

12. Thrombosis, embolism. Pathogenesis, consequences.

B. Inflammation.

13. Inflammation, its main signs, forms and phenomena. Classification of inflammation. Features of productive inflammation of the root system of teeth.

14. Inflammatory reaction of dental pulp, periodontal tissues and salivary glands. Features of the stage of proliferation in the tissues of the dental system. Granulomatous inflammation.

15. Vascular phenomena in the focus of inflammation (disorders of microcirculation, permeability)/

16. Emigration of leukocytes and exudation (mechanism and significance), the role of neutrophilic leukocytes in severe forms of inflammation in periodontal disease.

17. Metabolism and physico-chemical changes in the focus of inflammation, their causes and mechanism of development.

18. The ratio of general and local reactions in inflammation.

19. Etiology and pathogenesis of periodontal diseases.

20. Pathogenic classification and the main mechanisms of development of periodontal diseases.

21. Inflammatory processes in periodontium: formation and composition of plaque and its role in the development of periodontal diseases, changes in general and local immunity.

22. Structural disorders in the gum in gingivitis, periodontitis.

23. Osteolytic process in bone tissue during inflammatory processes in periodontal.

24. Functional trauma (periodontal hyperfunction, pathogenesis, stages).

25. Inflammation of the maxillofacial region, etiology of the “entrance gate”

26. The importance of reactivity in the development of inflammatory processes in the b/l region (normoergic, hyperergic and hypoallergenic)

27. The main pathogenesis of inflammatory processes in the maxillofacial region, ways of spreading inflammation from the primary focus to the surrounding tissues

B. Pathophysiology of changes in thermoregulation.

28. Overheating and fever (features of temperature rise in both cases).

29. The mechanism of thermoregulation changes in various stages of fever.

30. Types of temperature curves in fever.

31. Exo- and endogenous pyrogens. The mechanism of action of pyrogens on the body. Pyrotherapy.

32. Changes in metabolism, blood circulation, respiration, urinary system, digestion in fever.

33. Changes in the function of the salivary glands and the condition of the oral cavity in fever.

34. The importance of fever for the body.

G. Pathophysiologists of typical metabolic disorders.

35. Pathology of basal metabolism and specific dynamic effect of food substances. Dissociation of oxidative phosphorylation.

36. Types of fasting and metabolic changes during fasting (the work of the Pashutin school).

37. Hypovitaminosis brief description and dental manifestations of changes in periodontal tissues with vitamin deficiency. C, A, D, etc.

D. Pathophysiology of hypoxia.

38. Definition of the concept. General characteristics of hypoxia.

39. Classification of hypoxia.

40. Indicators of the gas composition of arterial and venous blood in various types of hypoxia.

41. Adaptive reactions in hypoxia are urgent and long-term.

E. Allergy.

42. Allergy, definitions, allergens and their types, brief description

43. Classification of allergic reactions and mechanisms of their development, stages

44. Anaphylactic shock, clinical variants, rate of flow, treatment

45. Intolerance of plastic dentures, definition, etiology, pathogenesis.

46. Clinical picture of intolerance to acrylic prostheses.

47. Diagnosis of intolerance.

48. Prevention and principles of treatment of intolerance phenomena.

49. Clinical picture of intolerance to dental “restorations” made of metal.

III. BLOOD PATHOPHYSIOLOGY

50. Basic properties and functions of blood.

51. Degenerative regenerative forms of erythrocytes.

52. General characteristics of anemia and principles of their classification.

53. Acute and chronic posthemorrhagic anemia. Pathogenesis and blood pattern.

54. Hereditary hemolytic anemia. Thalassemia, pathogenesis, changes in the dental system.Signs of erythropoiesis insufficiency.

55. Anemia from iron deficiency, pathogenesis and blood pattern.

56. Aplastic anemia, pathogenesis and blood pattern.

57. Anemia from lack of antianemic factor Castle or Addison-Biermer disease. Pathogenesis. Clinical picture, changes in the oral mucosa.

58. Leukocytosis and leukopenia.

59. Degenerative and regenerative and mixed nuclear shifts their significance for the clinic.

60. Degenerative and regenerative forms of leukocytes.

61. Leukemias. Definition of the concept, general characteristics. Etiology of leukemia. Change in leukopoiesis: the picture of peripheral blood.

62. Classification of leukemias. Methods of laboratory differentiation of acute leukemia.

63. Leukemia, definition, classification, ulcerative-necrotic lesions of the oral mucosa.

64. Werlhof's disease, the main hemolytic signs, complications after tooth extraction, prevention of these complications.

IV. PATHOPHYSIOLOGY OF BLOOD CIRCULATION AND RESPIRATION.

65. Violation of the central regulation of the heart: reflex changes in the work of the heart in physiological conditions (reflexes of Loven, Beimbridge, etc.) and conditions of pathology (Kitaev reflex), inadequate viscerocardial reflexes.

66. Pathophysiology of systemic circulation. General etiology pathogenesis of disorders of the cardiovascular system. Circulatory insufficiency of its form, hemodynamic parameters.

67. Mechanisms of urgent and long-term adaptation of the heart to intermittent and constant loads. Hyperfunction and hypertrophy of the myocardium, features of the hypertrophied heart decompensation mechanisms.

68. Coronary insufficiency: transient ischemia, myocardial infarction (pathogenesis and consequences). Changes in the main hemodynamic parameters in circulatory disorders of the cardiac type. Disorders in the tissues of the oral cavity in chronic insufficiency of the cardiovascular system.

69. Circulatory insufficiency in pericardial pathology. Cardiac tamponade (causes, mechanisms, consequences).

70. Vascular-type hemodynamic disorders: fainting, collapse, shock.

71. Modern ideas about hypertension. Hereditary predisposition, provoking factors in the pathogenesis of hypertension.

72. Pathogenesis of renal hypertension. Renoprivny and renopressor and mechanisms.

73. Symptomatic hypertension. The role of disorders of the nervous regulation of arterial pressure of the endocrine glands.

74. The concept of respiratory failure, its indicators, general etiology. And pathogenesis. Shortness of breath, stenosis, asphyxia. Pathological forms of breathing.

75. Respiratory disorders in pneumonia, emphysema, bronchial asthma, various types of pneumothorax.

76. Features of respiratory disorders in dental diseases and interventions. Connection of respiratory disorders with pathology of oral tissues.

V. PATHOPHYSIOLOGY of the LIVER.

77. Experimental modeling of the main types of liver pathology (Ecca fistula, Ecca-Pavlova, extirpation of the liver. Angiostomy in London).

78. Pathogenetic classification of jaundice and brief description

79. Analysis of the phenomena of liver failure.

80. Hemolytic jaundice and analysis of accompanying changes in the body.

81. Pathogenesis of changes in infectious and toxic jaundice.

82. Mechanical jaundice and analysis of accompanying changes in the body

83. Portal hypertension. Changes in the tissues of the oral cavity in chronic liver failure.

VI. PATHOPHYSIOLOGY OF URINATION AND URINARY EXCRETION.

84. Basic functional tests of the kidneys.

85. Polyuria, oliguria, hypostenuria, hyperstenuria, isostenuria, nocturia, causes and mechanism of occurrence.

86. Qualitative disorders of urine composition: albuminuria, cylindruria, hematuria, hemaglobinuria. Causes and mechanism of development

87. Etiology and pathophysiological mechanisms of development of the main clinical and laboratory syndromes of renal insufficiency in acute nephritic syndrome.

88. Etiology and pathophysiological mechanisms of development of the main clinical and laboratory syndromes of renal insufficiency in chronic nephritic syndromes.

89. Nephrotic syndrome.

90. Changes in the tissues of the dental system in chronic renal failure.

VII. PATHOPHYSIOLOGY OF THE ENDOCRINE SYSTEM.

91. The main pathophysiological mechanisms of hormonal disorders, the role of the hypothalamic-pituitary neurosecretory system in their occurrence.

92. Thyroid diseases and dental examination data.