Control questions for the final lesson No. 1 (3rd semester) in the discipline "Pathological Anatomy - Pathological Anatomy of the Head and Neck" for students in the educational program of the specialist specialty 31.05.03 Dentistry, focus (profile) Dentistry, Full-time form of education for 2023-2024 academic year

1. Pathological anatomy: content, tasks, objects and methods of research. The concept of autopsy and biopsy. Modern methods of morphological research. Communication of pathological anatomy with fundamental and clinical disciplines. Pathological anatomical service and its importance in the health care system.

2. Research methods in pathological anatomy. Autopsy. The value of studying cadaveric material, substrates obtained from patients during life, experimental material. Biopsies: definition, types and their characteristics, the importance of the biopsy research method in the diagnosis of diseases. Histological examination. Cytological study. Conventional and special staining methods. Histochemistry. Immunohistochemistry. Electron microscopy.

3. Damage (alteration): essence, causes, mechanisms and types of damage. Dystrophy: definition, etiology, morphogenetic mechanisms, classifications.

4. Necrosis: definition, causes, mechanisms of development, morphological characteristics. Classification. Clinical and morphological forms (coagulation, colliquation, fibrinoid, caseous, fatty, gangrene, sequestration, infarction). Outcomes and functional significance. Apoptosis: definition and it’s morphological characteristics.

5. Protein parenchymal dystrophies. Hydropic, hyaline-drop, horny dystrophy: causes, pathogenesis, morphological characteristics, outcome, functional significance. Mucoid and fibrinoid swelling: causes, pathogenesis, morphological characteristics, outcomes, functional significance.

6. Protein stromal-vascular dystrophies. Mucoid and fibrinoid swelling: causes, pathogenesis, morphological characteristics, outcomes, functional significance.

7. Stromal-vascular protein dystrophies. Hyalinosis and amyloidosis: causes, pathogenesis, classification, morphological characteristics, outcomes, functional significance. Morphological diagnosis of amyloidosis. Amyloidosis of the gums, tongue.

8. Parenchymal fatty degeneration. Fatty degeneration of the myocardium, liver, kidneys: causes, pathogenesis, morphological characteristics, outcomes, functional significance. Morphological diagnosis of fatty degeneration.

9. Stromal-vascular fatty degeneration. Obesity: definition, etiology, classification, morphological characteristics, complications. Benign bilateral lipomatosis of the neck.

10. Parenchymal and stromal-vascular carbohydrate dystrophies; dystrophies associated with glycoprotein metabolism: causes, pathogenesis, morphological characteristics, outcomes,

functional significance. Morphogenesis of glycogen metabolism disorders in diabetes mellitus. Macroglossia in Pompe disease.

11. Metabolic disorders of pigments (chromoproteins). Exogenous pigments. Endogenous pigments: types, formation mechanism, morphological characteristics and diagnostic methods. Metabolic disorders of lipofuscin and melanin: clinical and morphological characteristics. Hemoglobin metabolism disorders. Hemosiderosis (local, systemic), hemochromatosis.

12. Metabolic disorders of pigments (chromoproteins). Disorders of nucleoprotein metabolism: gout - causes, pathogenesis, morphological characteristics, outcomes, functional significance. Bilirubin metabolism disorders, morphological characteristics. Jaundice: types and their morphological characteristics.

13. Pathological calcification (calcinosis). Definition. Types of calcinosis: dystrophic, metastatic. Causes, patho- and morphogenesis, morphological characteristics, diagnosis, clinical manifestations, outcomes. Rickets. Influence of calcium and phosphorus metabolism disorders on the formation of jaw bones.

14. Stone formation: causes and mechanisms. Types of stones. Stones of the ducts of the salivary glands. Complications of stone formation.

15. Death: types, signs of death. Post-mortem changes and their morphological characteristics. Ethics of autopsy. The concept of thanatogenesis and resuscitation.

16. Circulatory disorders: classification. Hyperemia. Arterial hyperemia: definition.. Causes, types (local and systemic, physiological and pathological), morphology.

17. Venous congestion: definition. Types: general and local, acute and chronic. Venous congestion in the system of small and large blood circulation: patho- and morphogenesis, clinical and morphological characteristics, outcomes. Venous congestion in the portal vein system (portal hypertension): pathogenesis and clinical and morphological manifestations. Changes in the oral mucosa in chronic venous congestion. Outcomes, functional significance.

18. Bleeding (hemorrhage): definition, types (external and internal), plasmorrhagia, hemorrhages. Causes, types, mechanisms of development, clinical and morphological characteristics, functional significance.

19. Thrombosis: definition, causes, mechanism of thrombosis, local and general factors of thrombosis. Thrombus: its types, morphological characteristics, outcomes, functional significance. vein thrombosis. thrombosis of the arteries. Thrombosis in the cavities of the heart. Disseminated intravascular coagulation syndrome: definition, etiopathogenesis, morphological characteristics.

20. Embolism: definition, types, causes, morphological characteristics. Orthograde, retrograde and paradoxical embolism. Thromboembolism: causes of development, clinical significance. Thromboembolism of the pulmonary artery, acute cor pulmonale. Thromboembolic syndrome: clinical and morphological characteristics. Disseminated

intravascular coagulation syndrome: definition, etiopathogenesis, morphological characteristics.

21. Ischemia: definition, causes, types, morphological characteristics, outcomes. Stasis: definition, causes, pathogenesis, morphological characteristics, outcomes, functional significance.

22. Insufficiency of lymphatic circulation: causes, types, morphological characteristics, functional significance. Edema: causes, mechanism of development, types, morphological characteristics, outcomes.

23. Inflammation: definition, essence and biological significance. Classification. The problem of local and general in understanding inflammation. Acute inflammation. Etiology and pathogenesis. The reaction of blood vessels in acute inflammation.

24. Inflammation: definition, essence and biological significance. Cellular and molecular processes in inflammation. Mechanisms of increasing vascular permeability. Mechanisms and stages of migration of leukocytes. Chemotaxis. Phagocytosis (stages), completed and incomplete phagocytosis. Mechanisms of macrophage infiltrate formation in chronic inflammation.

25. Exudative inflammation: serous, fibrinous (croupous, diphtheritic), purulent (phlegmon, abscess, empyema), catarrhal, hemorrhagic, mixed. Morphological characteristics, outcomes, functional significance.

26. Chronic inflammation. Productive inflammation: types. Causes and morphological characteristics of interstitial inflammation and inflammation with the formation of polyps and genital warts.

27. Granulomatous inflammation: cellular kinetics of granulomas, pathogenetic types of granulomas, granulomas in various diseases (tuberculosis, syphilis, leprosy, glanders, rhinoscleroma) and their morphological characteristics. Inflammation around animal parasites (echinococcosis, trichinosis, dirofillariasis) and around foreign bodies: morphological characteristics.

28. Hypersensitivity reactions. I type of hypersensitivity reactions (anaphylactic type): mechanism, phases of development, clinical and morphological characteristics. Systemic and local anaphylaxis. Type II hypersensitivity reactions (cytotoxic type): 1) complement-dependent reactions; 2) antibody-dependent cellular cytotoxicity; 3) antibody-mediated cell dysfunction: mechanisms of development, clinical and morphological characteristics.

29. Type III hypersensitivity reactions (immunocomplex type): local and systemic immune complex disease. Clinical and morphological characteristics. Type IV hypersensitivity reactions (cell-mediated type): 1) delayed-type hypersensitivity, 2) T-lymphocyte-mediated cytotoxicity. Mechanisms of development, morphological characteristics, clinical significance.

30. Autoimmune diseases: definition, mechanisms of development, classification. Struma Hashimoto, systemic lupus erythematosus, rheumatoid arthritis, Sjögren's syndrome, periarteritis nodosa: etiology, mechanism of development, morphological characteristics.

31. Immune deficiency syndromes. Immune deficiency: definition, etiology, classification. Primary immunodeficiencies: definition, classification, diagnostic methods. Clinical and morphological characteristics of primary immunodeficiencies. Causes of death. Secondary (acquired) immunodeficiencies: definition, etiology, classification.