MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION “LOBACHEVSKY NATIONAL RESEARCH STATE UNIVERSITY OF NIZHNY NOVGOROD”
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PATHOLOGICAL ANATOMY OF ORAL DISEASES

Study guide

Recommended for publication by the methodological commission of the Institute of Biology and Biomedicine of the Lobachevsky National Research State University of Nizhny Novgorod for students of 31.08.72 “Dentistry”

Nizhniy Novgorod
2022

УДК 616.31(075.8)
ББК 56.6я73
А 81

А 81 PATHOLOGICAL ANATOMY OF ORAL DISEASES. Authors: Artifexova A.A., Tsybusov S.N.: study guide – Nizhniy Novgorod :University of Nizhny Novgorod, 2022. – 49 c.

Reviewers: Ph.D.**V.N. Grechko**
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The study guide consists of an introduction, a theoretical part with a brief description of diseases of the oral cavity, pathological processes and associated micro and macroscopic changes, tasks for the corresponding diseases.

The material is structured according to the curriculum and serves as a source for preparing for classes and for consolidating the material covered.

The textbook is intended for students of medical universities studying in the specialty “Dentistry”, residents and teachers.

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INTRODUCTION

The study guide "Pathological anatomy of oral diseases" contains a conceptual and terminological part (glossary) in the form of questions with answers and cases.

The glossary, divided according to the lesson plan, allows student to focus on the main points of the topics after reading the textbook, structure the material and ensure faster and more effective understanding of the theory. Such organization of theoretical material facilitates the preparation of tests for the teacher, and for the student - preparation for them.

The section with cases contains real clinical situations. They allow students to form an understanding of the practical work of a dentist, develop clinical thinking and the ability to apply knowledge in practice.

1. GLOSSARY

1.1. DENTAL CARIES

№	Question	Answer
1	Define dental caries	A disease manifested by demineralization and destruction of hard tissues of the tooth, followed by the formation of a cavity.
2	Name the main general factors that are important in the development of dental caries.	1. Inadequate diet (lack of protein, vitamins, calcium, excess carbohydrates, etc.). 2. Drinking water with an inferior composition of microelements (deficiency of fluorine, calcium, etc.). 3. Somatic diseases during the formation and maturation of tooth tissues. 4. Hereditary predisposition. 5. Adverse effects on the body (extreme situations, pregnancy, some somatic diseases, etc.).
3	Name the main local factors that are important in the development of dental caries.	1. Prolonged contact of the tooth with food debris. 2. The presence of plaque and dental plaque. 3. Reducing the amount and changing the composition of the oral fluid. 4. Defective structure and inferior chemical composition of hard tissues of the tooth (thin, easily permeable enamel, etc.). 5. The state of the dental pulp, leading to a decrease in its trophic function. 6. Anatomical deviations of the dentition (malocclusion, crowding of teeth, etc.).
4	What are the main essential points of the pathogenesis of dental caries?	1. The formation of organic acids as a result of the breakdown of food sugars by microorganisms on the surface of the tooth. 2. Damage to enamel by organic acids in a limited area, first with demineralization of the interprism matrix and expansion of the interprism spaces. 3. Penetration of microorganisms through the expanded interprism spaces into the deep layers of enamel. 4. Demineralization and destruction of enamel prisms to a structureless mass and the formation of an enamel defect. 5. Destruction of enamel-dentine connection. 6. Penetration of microorganisms into the

		dentinal tubules with damage to the processes of odontoblasts. 7. Demineralization and destruction dentine with education carious cavity. 8. Reactive solid changes tooth tissues (remineralization enamel and dentin, neoplasm dentine). 9. Reactive changes in the dental pulp (dystrophy, atrophy, fibrosis).
5	By what main parameters can caries be classified?	1. According to the depth of damage to the hard tissues of the tooth (enamel and dentin). 2. According to the localization of caries. 3. By the nature of the flow. 4. By prevalence.
6	What stages of dental caries are distinguished by the depth of damage to enamel and dentin?	1. Spot stage (chalk spot). 2. Superficial caries. 3. Average caries. 4. Deep caries.
7	At what stages of caries is demineralization and destruction of only enamel (enamel caries) observed?	1. Caries in the stain stage. 2. Superficial caries.
8	At what stages of caries is demineralization and destruction of dentin observed?	1. Medium caries. 2. Deep caries.
9	List the successively developing changes in the hard tissues of the tooth during caries in the stain stage.	1. Dis- and demineralization interprism matrix with expansion of interprism spaces, especially subsurface zone of enamel. 2. Demineralization and destruction prisms with erasing their contours. 3. Remineralization, especially in surface area of the enamel. 4. There may be a deposit pigments.
10	Describe the macroscopic changes in dental caries in the stain stage.	Enamel lesion in the form of a dull-looking spot, white (or pigmented) with a smooth surface.
11	Name the microscopic (histological) changes in the lesion during caries in the stain stage.	1. Dis- and demineralization surface area of the enamel. 2. Possible remineralization surface area of the enamel. 3. Possible deposition of pigments.

12	List the successively developing changes in the hard tissues of the tooth during the formation of superficial caries.	1. Pronounced demineralization of the interprism matrix. 2. Pronounced demineralization of prisms and their transformation into a structureless mass with the formation of a shallow defect within the enamel. 3. Accumulation and spread of microorganisms to the enamel-dentine junction. 4. There may be demineralization of the dentin-enamel junction, but without destruction.
13	Describe the macroscopic changes in superficial caries.	Enamel lesion in the form of a shallow defect (roughness during probing).
14	Name the microscopic (histological) changes in the lesion in superficial caries.	1. Demineralization and destruction entire layer of enamel. 2. Remineralization is possible. 3. The presence of microorganisms. 4. Demineralization of enamel dentine connection.
15	List the successively developing changes in the hard tissues of the tooth during the formation of dentin caries (medium and deep caries).	1. Destruction of enamel-dentine connection. 2. Expansion of dentinal tubules and accumulation of microorganisms in them. 3. Violation of the structure of the processes of odontoblasts (dystrophy, necrosis). 4. Demineralization and destruction of dentin with the formation of a cavity. 5. Reactive changes in dentin (remineralization, neoplasm). 6. Reactive changes in the pulp (dystrophy, atrophy, fibrosis, etc.).
16	Describe the macroscopic changes in medium and deep caries.	Carious cavity of various depths, having the shape of a cone, filled with a softened mass of dentin.
17	What zones are distinguished in the area of the bottom of the carious cavity with medium and deep caries?	1. The first zone is softened dentin (dentin in a state of destruction with microorganisms). 2. The second zone is transparent (remineralized) dentin with a possibly remaining layer of intact (normal) dentin. 3. The third zone is secondary (irregular, replacement) dentin, formed from the side of the tooth pulp.

18	What is remineralization?	Re-deposition of calcium salts in demineralized enamel or dentine.
19	How does remineralization of dentin and enamel occur?	1.The intake of mineral components (mainly calcium) from the oral (or tissue) fluid. 2. Deposition of calcium salts in previously demineralized enamel and dentine structures.
20	What is clear (remineralized) dentin?	Demineralized dentine that has undergone calcification (remineralization)
21	What is secondary (irregular, replacement) dentin?	Dentin, formed by odontoblasts from the pulp side of the tooth due to compensatory changes and not having the correct ordered structure of the tubules.
22	What reactive changes in the dental pulp can be with dentin caries?	1. First, hypertrophy of odontoblasts. 2. Then dystrophy and atrophy of odontoblasts. 3. There may be small focal accumulations of lymphocytes. 4. Fibrosis of the neurovascular bundle.
23	Which teeth are most often affected by caries?	1. The first large molars (molars). 2. Second large molars. 3. Small molars. 4. Upper incisors.
24	Which areas of the tooth are more likely to be affected by caries?	1. Fissures - fissure caries. 2. Contact surfaces teeth – proximal (contact) caries. 3. Cervical region - cervical caries.
25	What types of caries are usually distinguished according to the nature of the clinical course?	1. Fast flowing. 2. Slow flow. 3. Stabilized.
26	Name the complication (consequence) of deep caries.	Development of pulpitis.

1.2. FLUOROSIS

№	Question	Answer
1	What is fluorosis?	Chronic disease of the teeth, bones of the skeleton and some other organs, caused by excessive intake of fluoride.
2	Specify the forms of fluorosis depending on the source of fluorine intake into the body.	1. Endemic. 2. Sporadic. 3. Professional. 4. Iatrogenic.
3	What is the reason for the development endemic fluorosis.	Increasing the content of fluorine in water and soil in endemic foci.
4	Name the main pathogenetic moment in the development of endemic fluorosis.	Unfavorable effect of fluorine on ameloblasts during the development of permanent teeth in a child with impaired formation and mineralization of enamel.
5	What are the possible morphological changes in the hard tissues of the tooth with fluorosis?	1. Multiple lesions demineralization of interprism spaces. 2. Demineralization of enamel prisms with their destruction. 3. Deposition of pigments. 4. Shaping surface defects with destruction of enamel. 5. Formation of deep defects with dentine destruction.
6	List the forms (stages) of fluorosis according to the macroscopic picture. .	1. Line shape. 2. Spotted. 3. Chalky-mottled. 4. Erosive. 5. Destructive form
7	. At what forms (stages) of fluorosis do defects of hard tissues of the tooth appear?	1. Erosive form. 2. Destructive form.
8	Give a classification of fluorosis according to the degree of damage (4 degrees).	1 degree - single small white spots, occupying 1/3 of the surface of the enamel. Grade 2 - white spots occupying 1/2 of the enamel surface, single brown spots. Grade 3 - white and brown large confluent spots, occupying more than 1/2 of the enamel surface. Grade 4 - erosion of enamel, destruction of dentin.

9	What are the consequences of dental fluorosis?	1. Fragility and fragility of teeth. 2. Increased abrasion of teeth.
10	What organs and systems other than teeth are affected in severe fluorosis?	1. Skeletal system. 2. Endocrine system. 3. Central nervous system. 4. Gastrointestinal tract. 5. Sense organs.

1.3. WEDGE-SHAPED DEFECTS OF TEETH

№	Question	Answer
1	What are wedge-shaped defects of teeth?	Defect of hard tissues of a wedge-shaped tooth with a smooth surface, located on the vestibular surface of the teeth.
2	Which teeth are more likely to develop wedge-shaped defects?	1. Molars. 2. Fangs.
3	In what parts of the tooth are wedge-shaped defects more likely to develop?	In the area of the neck.
4	At what age do wedge-shaped defects develop?	1. Average age. 2. Senile.
5	Name the histological (microscopic) changes in wedge-shaped defects of the teeth.	1. Destruction of enamel and dentin with the formation of defects. 2. Deposition of secondary dentin from the side of the pulp. 3. Sclerosis, pulp atrophy.
6	What disease is often associated with wedge-shaped defects of teeth?	Periodontal disease
7	Define pathological tooth wear.	A pathological process characterized by rapid, compared with natural, loss of enamel and dentin.
8	What macroscopic changes are typical for pathological tooth wear?	1. Erase bumps. 2. Erasure of the cutting edges of the incisors. 3. Reducing the height of the crown. 4. Changing the anatomical shape of the teeth.
9	Name the degrees of pathological abrasion of teeth.	I degree - erasing bumps, cutting edges. II degree - erasure of the crown of the tooth to the contact pads. III degree - erasure of the crown to the gum.
10	Name the main histological (microscopic) changes in pathological tooth wear	. 1. Erasure of enamel and dentin. 2. Deposition of secondary dentin with deformation of the pulp cavity. 3. Pulp sclerosis
11	What general and local factors are important in the development of pathological tooth wear?	1. Congenital disorders amylodentinogenesis. 2. Functional overload of teeth. 3. Chronic trauma of the teeth. 4. Neurodystrophic processes. 5. Circulatory disorders. 6. Metabolic disorders.
12	What are the consequences of pathological tooth wear?	1. Accession of chronic periodontitis. 2. Development of periodontal disease.

1.4. INFLAMMATORY DISEASE

№	Question	Answer
1	What is pulpitis?	Inflammation of the dental pulp.
2	Name the main causes of pulpitis.	1. Infection (microorganisms). 2. Physical factors (mechanical trauma, thermal and radiation effects). 3. Chemical factors (filling material, drugs).
3	What microorganisms are more likely to cause pulpitis?	1. Streptococci. 2. Staphylococci. 3. Lactobacilli. 4. Others (streptobacilli, diplococci, gram-negative rods, fungi, etc.).
4	What are the main physical factors that can cause pulpitis?	1. Mechanical (injury due to accidental opening of the tooth cavity). 2. Thermal (high temperature during boron treatment of a carious cavity without cooling). 3. Radiation exposure (ionizing radiation).
5	Name the ways of penetration of infection into the pulp.	1. Through the crown of a tooth from a carious cavity - often. 2. Retrograde through the apical foramen - rarely. 3. Lymphogenous - rarely. 4. Hematogenous - rarely.
6	What types of pulpitis are distinguished, taking into account the localization of inflammation in the dental pulp?	1. Coronal pulpitis. 2. Root. 3. Total.
7	. What variants of pulpitis are isolated, given the prevalence of the inflammatory process in the pulp?	1. Focal pulpitis. 2. Diffuse pulpitis.
8	What types of pulpitis are distinguished, taking into account the nature of the clinical course?	1. Acute pulpitis. 2. Chronic. 3. Chronic with exacerbation.
9	What morphological form of inflammation is typical for acute pulpitis?	Exudative inflammation.
10	List the morphological variants of acute pulpitis.	1. Serous pulpitis (focal). 2. Purulent pulpitis (focal and diffuse). 3. Gangrenous acute pulpitis (pulp gangrene)

11	Name the main morphological (microscopic) changes in acute serous pulpitis. 1	1. Circulatory disorders (hyperemia, edema). 2. Moderate focal accumulation of neutrophilic leukocytes (impregnation with serous exudate).
12	Name the outcomes of serous pulpitis.	1. Transition to purulent pulpitis (usually after 6-8 hours). 2. Restoration of the pulp structure.
13	What are the morphological (microscopic) changes in focal purulent pulpitis?	1. Circulatory disorders (hyperemia, stasis, edema). 2. Severe focal accumulation of neutrophilic leukocytes with pulp lysis (pulp abscess).
14	What is the most common localization of focal pulpitis?	Coronal part of the pulp.
15	What are the main morphological (microscopic) changes in diffuse purulent pulpitis?	1. Severe circulatory disorders (plethora, hemorrhages, edema). 2. Diffuse impregnation of the pulp with a large number of neutrophilic leukocytes with lysis of tissue elements.
16	What is the most common localization of diffuse purulent pulpitis?	Coronal and root part of the pulp.
17	What are the morphological changes in the pulp in acute gangrenous pulpitis (with pulp gangrene)?	1. Severe disorders blood circulation (full blood,hemorrhage, edema). 2. Pulp necrosis with accumulation iron sulfide pigment. 3. Small accumulations of leukocytes.
18	What is the maximum duration of acute pulpitis? .	No more than 3 - 5 days
19	What are the outcomes of acute pulpitis.	1. Restoration of structures (only with serous pulpitis). 2. Transition to chronic pulpitis.
20	List the morphological variants of chronic pulpitis.	1. Chronic gangrenous pulpitis. 2. Chronic granulating (hypertrophic) pulpitis. 3. Fibrous pulpitis.
21	What morphological form of inflammation dominates in chronic pulpitis?	Productive inflammation.

22	Name the possible options for the onset of the development of chronic pulpitis.	1. Chronic pulpitis in the outcome of acute - often. 2. Independent development of chronic pulpitis is rare.
23	Describe the morphological (microscopic) changes in chronic gangrenous pulpitis.	1. Necrosis (gangrene) of the pulp. 2. Growth of granulation tissue along the periphery of necrosis.
24	Describe the morphological (microscopic) changes in chronic granulating (hypertrophic) pulpitis.	1. Pulp replacement with granulation tissue. 2. It is possible to form a polyp from granulation tissue. 3. Petrificates and pulp denticles are possible. 4. Lacunar resorption of dentin.
25	What is a pulp polyp?	Ulcerated granulation tissue protruding from the pulp into the carious cavity or covered with stratified squamous epithelium.
25	Describe the morphological (microscopic) changes in fibrous pulpitis.	1. Expressed growth of fibrous tissue in the pulp. 2. Moderate focal inflammatory infiltrates from lymphocytes and macrophages. 3. Petrificates and pulp denticles are possible.
27	Name the most common complication of pulpitis.	Periodontitis (usually apical).
28	Define periodontitis.	Inflammation of the periodontium (near-root connective tissue formation).
29	List the main causes of periodontitis.	1. Infection (microorganisms). 2. Physical factors (mechanical injury). 3. Chemical factors (chemicals, drugs).
30	Name the main infectious agents that cause periodontitis.	1. Streptococci. 2. Staphylococci. 3. Other microorganisms (gram-negative rods, dental spirochetes, fusobacteria, fungi, microbial associations, etc.).
31	Name the ways of penetration of infection into the periodontium.	1. Intradental (intradental) way. 2. Extradental (extradental) way.
32	What is the intradental route of infection in the periodontium?	Penetration of infection into the periodontium through the root canal with pulpitis

33	What are the possible options for infection in the periodontium in the extradental way?	1. From the tissues surrounding the tooth (with periodontitis, periostitis, osteomyelitis, sinusitis). 2. Hematogenous way. 3. Lymphogenic pathway.
34	What variants of periodontitis are distinguished by localization?	1. Apical - more often. 2. Marginal (marginal) - less often.
35	What variants of periodontitis are distinguished according to the clinical course? .	1. Acute periodontitis. 2. Chronic. 3. Chronic with exacerbation
36	What morphological type of inflammation is typical for acute periodontitis?	Exudative inflammation.
37	Name the morphological variants of acute periodontitis depending on the nature of the exudate and the extent of the lesion.	1. Acute serous periodontitis. 2. Acute purulent focal periodontitis. 3. Acute purulent diffuse periodontitis
38	Describe the main morphological (microscopic) changes in acute serous periodontitis.	1. Circulatory disorders (plethora, edema, etc.). 2. Moderate accumulation of neutrophilic leukocytes (impregnation with serous exudate).
39	Describe the main morphological (microscopic) changes in acute focal purulent periodontitis.	1. Circulatory disorders (plethora, edema). 2. Pronounced focal accumulation neutrophilic leukocytes with lysis of periodontal tissues (acute abscess).
40	Describe the main morphological (microscopic) changes in acute diffuse purulent periodontitis.	1. Circulatory disorders (plethora, edema). 2. Diffuse impregnation lots of periodontal neutrophilic leukocytes with tissue lysis.
41	What are the typical changes in the soft tissues of the gums, cheeks, palate in acute periodontitis?	Perifocal serous inflammation with severe edema (flux, parulis).
42	What is the longest duration of acute periodontitis?	About 2 weeks (14-20 days).
43	What are the outcomes of acute periodontitis.	1. Restoration of structures. 2. Transition to chronic periodontitis.

44	Name the possible complications in acute periodontitis.	1. Periostitis. 2. Osteomyelitis. 3. Phlegmon of the soft tissues of the oral cavity. 4. Sinusitis. 5. Lymphadenitis.
45	List the morphological variants of chronic periodontitis.	1. Chronic granulating periodontitis. 2. Chronic granulomatous periodontitis (granuloma). 3. Chronic fibrous periodontitis.
46	What morphological type of inflammation is typical for chronic periodontitis?	Productive inflammation.
47	Describe the morphological changes in chronic granulating periodontitis.	1. Growth of granulation tissue in the periodontium (more often in the area of the apex of the tooth). 2. Resorption of hard tissues of the tooth (cement, dentin). 3. Resorption of the bone tissue of the hole (osteoporosis). 4. The formation of fistulous passages is possible.
48	Describe the morphological changes in chronic granulomatous periodontitis (granuloma).	1. Focal growth of granulation tissue in the periodontium (more often in the region of the root apex). 2. Formation of the fibrous capsule along the periphery of the inflammatory focus. 3. A change in cement is possible (resorption - more often, hypercementosis - less often). 4. Resorption of the bone tissue of the hole.
49	Name the morphological variants of chronic granulomatous periodontitis (granuloma).	1. Simple granuloma. 2. Complex (epithelial) granuloma. 3. Cystogranuloma.
50	What are the morphological features of a simple granuloma?	A focus of granulation tissue in a fibrous capsule without ingrowth of stratified squamous epithelium.
51	What are the morphological features of a complex (epithelial) granuloma?	A focus of granulation tissue in a fibrous capsule with ingrown strands of stratified squamous epithelium.

52	Name the morphological features of cystogranuloma.	A focus of granulation tissue in a fibrous capsule with the formation of a cavity (cyst) in the center lined with stratified squamous epithelium.
53	What are the sources of occurrence of stratified squamous epithelium in the periodontal periodontitis?	1. Proliferation of the remnants of the odontogenic epithelium. 2. Germination of stratified squamous epithelium from the gum surface.
54	Describe the morphological changes in chronic fibrous periodontitis	1. Pronounced proliferation of fibrous tissue in the periodontium. 2. Small focal accumulations of lymphocytes and macrophages. 3. Often root hypercementosis.
55	List the possible morphological changes in the hard tissues of the tooth (cement, dentin) and bone tissue of the alveoli in chronic periodontitis	. 1. Resorption of cementum and dentin. 2. New formation of cement (hypercementosis). 3. Resorption of the bone tissue of the hole (osteoporosis).
56	Name the outcomes of chronic periodontitis.	1. Exacerbation with suppuration and the development of purulent complications. 2. Development of a radicular (periradicular) cyst of the jaw bone tissue.
57	What is dental plaque?	Deposits on the teeth of foreign masses in the form of plaque, dental plaque and tartar
58	What is plaque?	Soft deposits, consisting of mucus, food debris, microorganisms, leukocytes, desquamated epithelium, not bonded to the surface of the tooth.
59	What is dental plaque?	Soft deposits, containing a small amount of mineral salts, bonded to the surface of the tooth.
60	What is tartar?	Hard deposits containing a large amount of mineral salts, tightly bonded to the surface of the tooth.
61	In what part of the tooth is tartar usually deposited?	1. In the area of the neck of the tooth (supragingival stones). 2. Below the neck, along the root, in the gum pocket (subgingival stones).

62	Which teeth are most often affected by tartar?	1 Teeth, most abundantly washed by saliva, located at the excretory ducts of the salivary glands (lower incisors, upper molars).
63	Which diseases are promoted by tartar?	1. Chronic gingivitis. 2. Periodontitis. 3. Periodontitis.
64	Define periodontium.	The set of anatomical structures surrounding the root of the tooth (gingiva, periodontium, alveolar bone with periosteum).
65	Define gingivitis..	1 Inflammation of the gingival mucosa without violating the integrity of the gingival junction
66	66 Name the main factors causing gingivitis: A) local	1. Infectious agents. 2. Mechanical injury. 3. Physical factors. 4. Chemical factors.
	B) general	1. Infectious diseases. 2. Endocrine diseases. 3. Metabolic diseases. 4. Leukemia and other blood diseases.
67	What types of gingivitis are distinguished by the nature of the course?	1. Sharp. 2. Chronic.
68	Name the most common types of gingivitis distinguished by the characteristics of inflammatory changes.	1. Catarrhal (acute and chronic). 2. Ulcerative and ulcerative-membranous (acute and chronic). 3. Hypertrophic (chronic).
69	What microscopic (histological) gum changes are characteristic of acute catarrhal gingivitis?	1. Circulatory disorders (plethora, edema). 2. Inflammatory infiltrate of segmented leukocytes in the subepithelial zone and in the epithelial layer.
70	What microscopic (histological) gum changes are characteristic of chronic catarrhal gingivitis?	1. Moderate circulatory disorders (plethora, edema). 2. Inflammatory infiltrate is predominantly lymphoid-macrophage with an admixture of segmented leukocytes.
71	What microscopic (histological) gum changes are characteristic of ulcerative gingivitis?	1. Necrosis with the formation of erosions and ulcers (acute or with granulation tissue). 2. Violation of blood circulation (plethora, edema). 3. Inflammatory infiltrate with the presence of segmented leukocytes.

72	What microscopic (histological) gum changes are typical for hypertrophic chronic gingivitis?	1. Pronounced inflammatory infiltration by lymphoid, plasma, macrophage cells in the subepithelial zone. 2. Growth of connective tissue. 3. Changes in stratified squamous epithelium (hyperplasia, keratosis, hyperkeratosis, acanthosis).
73	Name the outcomes of acute and chronic gingivitis.	1. Recovery with complete restoration of tissue structure. 2. Development of periodontitis (with chronic gingivitis).
74	Define periodontitis.	1 Inflammatory periodontal disease with progressive destruction of the periodontium and bone of the alveolar process of the jaw.
75	What pathological process necessarily precedes the development of periodontitis?	1 Chronic gingivitis
76	What types of periodontitis are distinguished by prevalence?	1. Localized. 2. Generalized.
77	Name the division of periodontitis according to the severity of the lesion.	1. Light degree. 2. Medium degree. 3. Severe degree.
78	What local factors support inflammation in periodontitis?	1. Chronic gingivitis. 2. Dental deposits (plaque, tartar). 3. Anomalies of teeth and soft tissues oral cavity. 4. Microangiopathy of the dentition.
79	Name the general factors (background diseases) that contribute to the development of periodontitis.	1. Disease of the endocrine system (diabetes). 2. Digestive diseases systems (gastric ulcer). 3. Diseases with metabolic disorders substances and avitaminosis. 4. Diseases of the cardiovascular systems. 5. Pathology of immunity.
80	List the main morphological changes that occur in periodontitis.	1. Chronic gingivitis (catarrhal orhypertrophic). 2. Formation of pathologicalperiodontal pocket, with purulentexudate or granulationcloth. 3. Formation of periodontalpockets of purulent exudate orgranulation tissue.

		4. Growing into pathologicallayered flat pockets epithelium. 5. Resorption of the bone tissue of the alveoli. 6. Resorption or neoplasm cement of the root of the tooth.
81	What is a pathological periodontal pocket? .	Slit-like space at the site of the periodontium, formed due to progressive destruction during inflammation of the periodontium and resorption of the bone tissue of the jawbone.
82	Name the types of bone resorption according to morphogenesis.	1. Lacunar. 2. Axillary. 3. Smooth.
83	Name the types of resorption of the jaw bone by topography.	1. Horizontal (resorption of the ridges of the holes). 2. Vertical (resorption of interdental septa).
84	What are the main criteria that determine the severity of periodontitis. .	1. Depth of periodontal pocket. 2. The degree of resorption of the bone of the interdental septa. 3. Pathological tooth mobility
85	What are the criteria for mild periodontitis?	1. The depth of the periodontal pocket is up to 3.5 mm. 2. Resorption of the bone of the interdental septa - up to 1/3 of the length of the tooth root. 3. Absence of pathological tooth mobility or pathological mobility of the I degree.
86	What are the criteria for moderate periodontitis?	1. The depth of the periodontal pocket is 5mm. 2. Resorption of the bone tissue of the interdental septa - by 1/3 - 1/2 of the length of the tooth root. 3. Pathological tooth mobility I - II degree.
87	What are the criteria for severe periodontitis?	1. The depth of the periodontal pocket is more than 5 mm. 2. Resorption of the bone of the interdental septa - more than 1/2 of the length of the tooth root. 3. Pathological tooth mobility II - III degree.
88	Specify the adverse effects of periodontitis.	1. Pathological mobility and loss of teeth. 2. Chronic intoxication and sensitization of the body by products formed during inflammation.
89	Define periodontal disease.	1 Chronic periodontal disease of a primary

		dystrophic nature without previous gingivitis and without inflammatory changes.
90	What non-carious dental diseases are often associated with periodontal disease?	1. Wedge-shaped defects. 2. Erosion of the enamel. 3. Increased abrasion of teeth.
91	Name the morphological changes characteristic of periodontal disease.	1. Dystrophic changes in the connective tissue of the gums and periodontium with retraction (lowering) of the gums. 2. Changes in the bone tissue of the alveoli (resorption, osteosynthesis, osteosclerosis, restructuring) with a uniform decrease in the height of the alveolar septa. 3. Damage to the vessels of the microvasculature (sclerosis, hyalinosis of the walls with narrowing of the lumen).
92	What is the most typical localization of the lesion in periodontal disease?	1 The area of incisors and canines.
93	What are the consequences of periodontal disease?	1. Pathological mobility teeth. 2. Development of secondary inflammation periodontitis (periodontitis).
94	What is epulid (epulis, supragingival)?	1 Tumor-like growth of the soft tissues of the gums as a result of chronic irritation (trauma with a filling, an artificial crown, the root of a destroyed tooth, etc.).
95	Describe the macroscopic appearance of the epulis (shape, attachment to the gum, localization).	1. Pathological formation of a round or mushroom shape. 2. Bonded to gingival pedicle or base 3. It is located on the vestibular surface of the gums more often than the lower jaw, in the area of the canines and premolars.
96	What variants of epulis are distinguished according to the histological picture?	1. Fibrous epulis. 2. Angiomatous. 3. Giant cell (giant cell granuloma).

1.5. DISEASES OF THE JAW BONES

ODONTOGENIC INFECTION

TUMOR-LIKE LESIONS AND TUMORS OF THE JAWS

№	Question	Answer
1	Define periostitis.	Inflammation of the periosteum (periosteum).
2	What periostitis can be according to the nature of the course	1. Sharp. 2. Chronic.
3	What periostitis is distinguished according to the morphological features of inflammation?	1. Serous periostitis (acute). 2. Purulent periostitis (acute). 3. Fibrous periostitis (chronic).
4	With what previous disease is the development of periostitis of the jaws more often associated?	With periodontitis
5	Describe the morphological changes in the periosteum in serous periostiti	. 1.Circulatory disorders (plethora, edema). 2. Moderate inflammatory infiltration by neutrophilic leukocytes.
6	Describe the morphological changes in the periosteum in purulent periostitis.	1. Circulatory disorders (plethora, edema, hemorrhages). 2. Severe infiltration with neutrophilic leukocytes with lysis of periosteal tissues (possible formation of a subperiosteal abscess). 3. Resorption of the cortical part of the jawbone.
7	Name the complications of purulent periostitis.	1. Formation of fistulas. 2. Phlegmon of soft tissues. 3. Osteomyelitis.
8	What is a fistula?	Pathological passage connecting cavity with purulent contents other organs, cavities, body surface.
9	Describe the morphological changes in the periosteum in chronic fibrous (productive, hyperplastic) periostitis	1. Mild lymphoid cell infiltrates of the periosteum. 2. Growth of connective tissue in the periosteum. 3. Neoplasm (metaplastic) bone.
10	Define osteomyelitis	(From Greek osteo - bone, myelos - brain). Inflammation of the bone marrow, extending to the compact and spongy bone and periosteum.

11	Specify the most common localization of osteomyelitis of the jaw bones	Lower jaw, molar area.
12	What variants of osteomyelitis are distinguished, taking into account the nature of the course?	1. Sharp. 2. Chronic.
13	What variants of osteomyelitis of the jaw bones are distinguished, taking into account etiopathogenesis?	1. Odontogenic osteomyelitis associated with previous pyoinflammatory diseases of the dentition (periodontitis, periostitis). 2. Primary hematogenous osteomyelitis. 3. Traumatic osteomyelitis.
14	Describe the morphological changes characteristic of purulent nonspecific osteomyelitis of the jaw bones.	1. Abundant accumulation of neutrophilic leukocytes in the bone marrow spaces 2. Necrosis of bone tissue with the formation of bone sequesters. 3. Purulent fusion of bone tissue with the formation of a cavity. 4. Resorption of bone beams (lacunar, smooth).
15	What is bone sequestration?	An area of necrotic bone tissue that has not undergone any outcome and lies freely in the sequester cavity.
16	What is a sequestral cavity	A cavity formed during purulent fusion of a bone containing a bone sequester
17	What layers in the wall of the sequester cavity are formed in the chronic course of osteomyelitis?	1. A layer of granulation tissue (pyogenic membrane) that produces leukocytes. 2. Layer of fibrous tissue (connective tissue capsule).
18	Name the main complications of osteomyelitis	1. Formation of fistulas. 2. Phlegmon and soft tissue abscesses. 3. Purulent sinusitis. 4. Thrombophlebitis, sinus thrombosis. 5. Mediastinitis. 6. Sepsis.
19	What complications are possible in chronic osteomyelitis	1. Pathological fractures of the jaw bones. 2. Amyloidosis (secondary).
20	What are odontogenic cysts of the jaw bones	Cysts of the jaw bones, the occurrence of which is associated with the pathology of the teeth.
21	How is it customary to classify odontogenic cysts according to etiopathogenesis?	1. Inflammatory cysts. 2. Dysontogenetic cysts.

22	Give the name of the inflammatory odontogenic cyst of the jaw bones.	Radicular cyst (root, apical).
23	Specify the most common localization of the radicular cyst	In the alveolar process of the upper jaw, corresponding to the root of the tooth.
24	What inflammatory disease precedes the development of a radicular cyst?	Chronic granulomatous apical periodontitis (apical granuloma).
25	Describe the microscopic structure of a radicular cyst (wall, inner lining	1. Wall of fibrous tissue with severe inflammatory infiltrates or granulation tissue. 2. Inner lining of stratified squamous epithelium without keratinization.
26	Name the complications of radicular cyst	1. Suppuration. 2. The development of sinusitis when the infection enters the maxillary cavity. 3. Deformation and destruction of the jaw bone.
27	How common is a radicular cyst	The most common odontogenic cyst (80 - 93% of all odontogenic cysts).
28	Define dysontogenetic cysts of the jaw bones	Cysts of the jaw bones, the occurrence of which is associated with a violation of the embryonic development of the teeth (or jaw).
29	What dysontogenetic cysts of the jaw bones are commonly isolate	1. Follicular cyst(dental cyst). 2. Primordial cyst (keratocyst). Currentlyclassified as benigntumors called keratocystic tumor
30	Describe the clinical and morphological features of a primordial cyst (keratocystic tumor): localization, wall, interior lining, contents.	1. Localization - more often in the area of the angle of the lower jaw. 2. Thin wall of fibrous tissue. 3. Inner lining of mature stratified squamous epithelium with pronounced keratinization. 4. Content - masses of keratin, cholesterol, desquamated epithelium.
31	Features of the course of primordial cysts?	Persistent relapsing course after surgical removal.
32	What tumors of the jaw bones are odontogenic	Tumors developing from tooth-forming tissues.
33	Name the most common mature odontogenic tumors	1. Ameloblastoma (adamanthymoma). 2. Odontoma (simple, complex-mixed, complex-composite). 3. Cementoma

34	Name some immature malignant odontogenic tumors	1. Malignant ameloblastoma. 2. Odontogenic sarcomas. 3. Odontogenic cancer.
35	What is ameloblastoma?	Mature odontogenic tumor, the main component of which is the odontogenic epithelium.
36	Select the main anatomical features of ameloblastoma (localization, macroscopic changes in the jawbone, sectional view of the tumor node	1. Localization - the bone of the lower jaw. 2. Thickening of the jawbone in the form of swelling. 3. On section, the tumor tissue is dense, whitish, often with cystic cavities.
37	Highlight the main microscopic (histological) components of ameloblastoma	1. Layers (nests) of odontogenic epithelium. 2. Often the formation of cysts at the site of epithelial layers. 3. Stroma of connective tissue in large quantities.
38	What are the features of ameloblastoma growth (growth rate and nature of growth in relation to surrounding tissues).	1. Slow growth rate. 2. Local destructive nature of growth.
39	What is an odontoma (odontoblastoma)?	Mature benign odontogenic tumor built from various tooth tissues or defective teeth.
40	Name the most common location of odontoma.	In the area of the angle of the lower jaw
41	What is cementoma (cementoblastoma)?	Mature benign odontogenic tumor, the main feature of which is the presence of cement-like tissue.
42	What is the most common topography of cementoma?	Jaw bone, respectively, the region of the roots of molars and premolars, usually the lower jaw.
43	What is fibrous dysplasia of the jaw bones?	Tumor-like change in the bones of a dysplastic nature
44	What are the macroscopic bone changes in fibrous dysplasia?	Focus of dense consistency, clearly delimited from the surrounding bone tissue
45	Name the main microscopic (histological) changes in fibrous bone dysplasia	1. Focal proliferation of coarse fibrous connective tissue. 2. Formation of solid structures from a cement-like substance (cementikles). 3. Focal proliferation of cells such as osteoblasts.

46	Define an odontogenic infection.	A concept that combines diseases of a purulent-inflammatory nature of the dental system, which can serve as a source for the development of other acute and chronic diseases.
47	What diseases are united in the concept of "odontogenic infection"?	1. Purulent pulpitis. 2. Purulent periodontitis (acute or exacerbation of chronic). 3. Periodontitis. 4. Festering jaw cysts. 5. Periostitis of the jawbone (odontogenic). 6. Osteomyelitis of the jawbone (odontogenic).
48	Name the main purulent-inflammatory diseases that can develop as complications of an odontogenic infection.	1. Odontogenic sinusitis. 2. Phlegmon and abscesses of the soft tissues of the neck, oral cavity. 3. Purulent regional lymphadenitis. 4. Thrombophlebitis of the veins of the face and cerebral sinuses. 5. Mediastinitis. 6. Meningitis (meningoencephalitis). 7. Odontogenic sepsis (septicopyemia)
49	Name some general somatic diseases of different genesis, in the development of which there is a pathogenic connection with foci of odontogenic infection	1. Infectious and allergic diseases (rheumatism, myocarditis and others). 2. Sepsis (septic endocarditis, chronic sepsis). 3. Amyloidosis.
50	Define stomatitis	1 Inflammation of the oral mucosa. 2 List the causes of stomatitis. 4 1. Infectious agents (bacteria, viruses, fungi). 2. Mechanical factors. 3. Physical agents (ionizing radiation, etc.). 4. Chemical factors (including medications).
51	Name the main types of stomatitis, distinguished by the nature of the course.	.1.Acute (no more than 2-3 weeks). 2. Chronic.
52	Name the variants of stomatitis, distinguished by the features of inflammatory changes.	1. Catarrhal (catarrhal-desquamative). 2. Ulcerative (catarrhal ulcerative). 3. With the formation of vesicles (bubbles). 4. With the formation of aft. 5. Gangrenous.
53	Name the main variants of stomatitis, distinguished as independent nosological units (forms).	1. Catarrhal stomatitis (of various etiologies). 2. Herpetic stomatitis (caused by the herpes simplex virus).

		3. Aphthous stomatitis (etiology is unclear). 4. Candidiasis stomatitis or thrush (caused by fungi of the genus Candida). 5. Ulcerative stomatitis (of various etiologies, including radiation).
54	Describe the microscopic (histological) picture of acute catarrhal stomatitis	1. Circulatory disorders (fullness, edema). 2. Inflammatory infiltration with the presence of segmented leukocytes in the subepithelial zone and in the epithelium.
55	Describe the microscopic (histological) picture of herpetic stomatitis.	1. The presence of vesicles (blisters) filled with serous exudate. 2. Ulcers (erosion) at the site of the opened bubbles. 3. Intracellular viral inclusions in epithelial cells. 4. Circulatory disorders (fullness, edema).
56	Name the microscopic (histological) features of aphthous stomatitis	1. Availability of aft. 2. Inflammatory infiltrate in the AFT area is lymphoid-macrophage with a possible admixture of neutrophilic leukocytes.
57	Name the microscopic (histological) features of candidiasis stomatitis.	1. Fibrinous-purulent exudate with hyphae of the fungus. 2. Circulatory disorders (fullness, edema). 3. Necrosis of the epithelial layer.
58	Name the microscopic (histological) features of ulcerative stomatitis	. Foci of mucosal necrosis with ulceration and erosion. 2. The development of granulation tissue at the site of ulcers, followed by scarring.
59	Define erosion	Superficial defect of the mucous membrane formed as a result of shallow necrosis, healing without scar.
60	Define the afta	A superficial defect of the oral mucosa, having a rounded or oval shape, covered with a yellow fibrinous plaque, surrounded by a corolla of hyperemia. Heals without scarring
61	Define the ulcer	Deep defect of the mucous membrane formed as a result of deep necrosis, healing with the formation of a scar.
62	List the most frequent precancerous processes (diseases) of the mucous	1. Dysplasia and "cancer in place" (squamous intraepithelial neoplasia, PIN).

	membrane of the oral cavity, lips, tongue	2. Leukoplakia. 3. Erythroplakia. 4. Chronic inflammatory and other diseases with epithelial dysplasia.
63	Define epithelial dysplasia	Pathological process of cell proliferation and differentiation disorders with the development of their atypia and changes in the architectonics of the epithelial layer, but without invasive growth.
64	What stages (degrees) of epithelial dysplasia are commonly distinguished?	Grade I - minor atypia of the epithelium. Grade II - moderate epithelial atypia. Grade III - pronounced atypia of the epithelium.
65	Why is epithelial dysplasia dangerous?	Dysplasia is a precancerous process.
66	What is "cancer in situ"?	Cancer growing within the pre-existing epithelial layer and has not yet given invasive growth.
67	What is the danger of "cancer on the spot"?	Immediately precedes the development of invasive cancer.
68	What epithelial changes immediately precede malignancy?	1. Epithelial dysplasia of the III degree 2. "Cancer is in place."
69	What pathological changes of the epithelium are combined in the concept of squamous intraepithelial neoplasia (PIN)?	1. Epithelial dysplasia 1,2,3, degrees. 2."Cancerisinplace".
70	What is leukoplakia?	(From the Greek leucos - white, French plaque - plate). A white spot (or plaque) on the mucous membrane as a result of keratinization of the epithelial cover.
71	What clinical and morphological forms of leukoplakia are commonly distinguished?	1. Flat (simple). 2. Warty (verrucose).
72	What types of leukoplakia are distinguished by histological (microscopic) parameters?	1. Leukoplakia without epithelial atypia (without epithelial dysplasia). 2. Leukoplakia with epithelial atypia (with epithelial dysplasia).
73	List the microscopic (histological) changes in leukoplakia.	1. Keratosis, hyperkeratosis andparakeratosis (pathology of keratinization). 2. Epithelial hyperplasia. 3. Acanthosis of the epithelial layer.

		4. Possible atypia (dysplasia) of the epithelium. 5. Lymphoid cell infiltration in the subepithelial zone.
74	List the most frequent localization of oral leukoplakia.	1. The mucous membrane of the cheeks. 2. The bottom of the oral cavity. 3. Ventral surface of the tongue. 4. Solid sky. 5. Lower lip, mucous part.
75	What is the frequency of malignancy of oral leukoplakia?	With leukoplakia with atypia - about 50%.
76	What is erythroplakia (erythroplasia)?	(From the Greek. erythros - red, French. plaque - plate). A bright red spot (or plaque) with a velvety surface on the mucous membrane.
77	Indicate microscopic (histological) changes in erythroplakia.	1. Thinning of the epithelial layer. 2. Atypia (dysplasia) of the epithelium. 3. Inflammatory infiltration in the subepithelial zone. 4. Pronounced hyperemia in the subepithelial zone.
78	What is the frequency of erythroplakia malignancy?	About 50%.
79	Which histological (microscopic) variant of cancer most often develops in the oral cavity, lower lip, tongue?	Squamous cell carcinoma
80	What histological (microscopic) variants of squamous cell carcinoma are commonly isolated?	1. Squamous cell carcinoma with keratinization. 2. Squamous cell carcinoma without keratinization.
81	31 List the main precancerous diseases of the lower lip.	1. Epithelial dysplasia and "cancer onplace" (squamous intraepithelial neoplasia, PIN). 2. Leukoplakia. 3. Erythroplakia. 4. Chronic cheilitis with epithelial dysplasia.
82	Name the most common topography of lower lip cancer	Red border of the lower lip on the side of the midline.
83	List the anatomical forms of cancer of the lower lip	1. Ulcerative. 2. Papillary (papillary). 3. Infiltrative.
84	In which lymph nodes does lower lip cancer give the first metastases?	1. Submandibular lymph nodes. 2. Chin lymph nodes.

85	List the main precancerous diseases of the tongue	1. Epithelial dysplasia and "cancer on place" (squamous cell intraepithelial neoplasia, PIN). 2. Leukoplakia. 3. Erythroplakia, 4. Chronic inflammatory diseases (chronic glossits) and other diseases with dysplasia epithelium.
86	Name the most common topography of tongue cancer	1. Side surface (medium a third). 2. Lower surface (middle a third).
87	List the macroscopic (anatomical) forms of tongue cancer	1. Ulcerative. 2. Papillary (papillary). 3. Infiltrative.
88	In which lymph nodes does tongue cancer give the first metastases?	Deep lymph nodes of the neck.
89	What is sialoadenitis?	Inflammation of the salivary gland.
90	Name the etiological factors that cause sialoadenitis	1. Bacteria. 2. Viruses. 3. Autoimmune factors.
91	Which sialoadenites are distinguished by the nature of the f low?	1. Sharp. 2. Chronic.
92	List the types of acute sialoadenitis by the nature of the inflammatory reaction	1. Serous. 2.Purulent.
93	Name the most common chronic sialoadenitis	1. Chronic nonspecific bacterial sialoadenitis with sialolithiasis (formation of stones). 2. Chronic sialoadenitis with Sjogren's dry syndrome (autoimmune disease).
94	In which salivary glands can tumors develop?	1. In the large salivary glands (parotid, submandibular, sublingual). 2. In the small salivary glands of the oral cavity.
95	Name the most common benign tumors of the salivary glands	1. Pleomorphic (polymorphic) adenoma or mixed tumor of the salivary gland. 2. Monomorphic adenomas.
96	Name the most common malignant tumors of the salivary glands (carcinomas).	1. Adenocystic carcinoma (cylindroma). 2. Adenocarcinoma. 3. Carcinoma from pleomorphic adenoma.

97	Name the most common tumor of the salivary gland	Pleomorphic adenoma (mixed tumor).
98	Describe the macroscopic view of a pleomorphic adenoma of the salivary gland (the shape of the tumor node, consistency, view on the incision).	1. A rounded tumor node. 2. Dense elastic consistency. 3. The cut is compact, whitish in color.
99	Describe the histological (microscopic) structure of the pleomorphic adenoma of the salivary gland (parenchyma, stroma).	1. Parenchyma - strands, fields, nests of mature epithelial cells. 2. Stroma - connective tissue with characteristic foci of hyalinosis, osliznenie, cartilaginous structure.
100	In which salivary gland is pleomorphic adenoma more common	Parotid salivary gland.
101	Can a pleomorphic adenoma of the salivary gland be malignated?	Yes, rarely (in 2-3% of cases).
102	Give a description of salivary gland carcinomas (frequency of occurrence, growth rate, growth pattern relative to surrounding tissues, metastasis).	1. They are rare. 2. The growth rate is fast. 3. Infiltrative growth. 4. Metastasize lymphogenously and hematogenically.
103	Which salivary gland carcinoma is more common?	Adenocystic carcinoma (cylindroma).
104	In which salivary glands is adenocystic carcinoma more common?	In the small salivary glands of the hard and soft palate.
105	What are the main macroscopic features of adenocystic carcinoma (tumor size, shape of the tumor node, view on the incision	1. Small size. 2. A rounded knot. 3. The cut is compact, gray in color.
106	Describe the microscopic (histological) structure of adenocystic carcinoma (parenchyma, stroma).	1. Parenchyma fields, cribrotic structures of small monomorphic cells, numerous mitoses in tumor cells. 2.Stroma - narrow layers connective tissue

2. CASES

1. During preventive examinations in schools a significant percentage of 5th grade students had dental caries at different stages. It is known that in the Nizhny Novgorod region there is a high incidence of caries in the population.

1. Define dental caries.
2. What local factors contribute to the development of dental caries?
3. What common factors contribute to the development of dental caries?
4. Name the main essential points of the pathogenesis of dental caries (how and in what sequence changes in the hard tissues of the tooth occur).
5. What is the danger of dental caries?
6. Why is there a high incidence of caries in the population in the Nizhny Novgorod region?

2. During a preventive examination of the oral cavity of a 12-year-old child, an opaque white spot was found on the chewing surface of the tooth 36. When probing, the enamel in the spot area is smooth. The diagnosis of caries was made, therapeutic measures were prescribed according to the revealed pathology.

1. Specify the stage of tooth decay in the child.
2. Describe in detail the microscopic (histological) changes in the hard tissues of the tooth at this stage of caries.
3. Name the possible further development of changes in the hard tissues of the tooth in a child without treatment.
4. What is remineralization in dental caries and how does it happen?
5. What is the danger of dental caries?
6. What are the main parameters used to classify dental caries?

3. During a preventive examination of the oral cavity of a 10-year-old child, 36 tooth changes were detected, which were regarded as superficial caries. Therapeutic measures were carried out according to the revealed pathology.

1. Describe the macroscopic picture of superficial dental caries.
2. Describe the microscopic (histological) changes in the hard tissues of the tooth at this stage.

3. Name the possible further path of development of the described pathology of the tooth without treatment.
4. Which teeth are affected by caries more often?
5. Which areas (parts) of the tooth are affected by caries more often?
6. Why do dental caries need to be detected and treated at an early stage?

4. In a patient who came to the dental office, a violation of the integrity of the crown of the tooth 47 in the form of a cavity is determined. The patient complains of pain when taking hot and cold food, but the pain goes away after contact with the stimulus is stopped. The diagnosis of medium caries was made, treatment was started.

1. Describe the macroscopic picture of the average caries.
2. Name the microscopic (histological) changes in the bottom of the carious cavity with medium caries.
3. What stages precede the average tooth decay?
4. How do you imagine the development of medium caries (what changes in the hard tissues of the tooth and in what sequence occur during the development of medium dental caries)?
5. What therapeutic measures are shown to the patient with medium caries?
6. Name the further path of development of medium caries without treatment.

5. A patient came to the dental office of the polyclinic with a complaint of soreness in the area of the lower jaw tooth that occurs when eating. On examination, a deep carious cavity was found, its bottom is softened, painful. Deep caries was diagnosed and treatment started.

1. Describe the macroscopic appearance of the carious cavity of the tooth.
2. Which zones of the bottom of the carious cavity are isolated in deep caries?
3. What is transparent (remineralized) dentin, how is it formed?
4. What is secondary (substitutive) dentin, how is it formed?
5. What are the reactive changes in the pulp of the tooth can be with deep caries?
6. Name the complication (consequence) of deep caries.

6. A 19-year-old boy living in an endemic focus turned to the dentist with complaints of spotty pigmentation of tooth enamel. Upon examination, multiple chalk spots and stripes were found on the surface of the teeth. Fluorosis was diagnosed.

1. Define fluorosis.
2. Name the cause of endemic fluorosis.
3. Name the main pathogenetic moment in the development of dental fluorosis.
4. What is the form (stage) of dental fluorosis in the patient described in the task?
5. List the microscopic changes that occur in the hard tissues of the teeth during fluorosis?
6. What are the consequences of dental fluorosis?

7 .The patient went to the dental clinic complaining of acute pain in the lower jaw area on the right, which appeared the night before and sharply intensified at night. Upon examination of tooth 45, a large carious cavity was found. Acute pulpitis was diagnosed.

1. What, apparently, is the morphological variant of pulpitis in the patient described in the task? Why do you think so?
2. Describe in detail the morphological (microscopic) changes in the pulp with this variant of pulpitis.
3. How do you understand the pathogenesis of acute pulpitis?
4. What is the maximum duration of acute pulpitis?
5. Name the possible outcomes of acute pulpitis without treatment.
6. What complication of pulpitis could develop in the patient described in the task?

8. A patient with acute pain in the lower jaw area on the left turned to the dental clinic. The pain occurs paroxysmally, gives in the ear. The pain was especially severe at night. When examining the oral cavity, a deep carious cavity of the 46th tooth was found. Acute pulpitis was diagnosed.

1. Define pulpitis.
2. List the morphological variants of acute pulpitis.
3. What is apparently the morphological variant of acute pulpitis in the patient? Why do you think so?
4. Describe in detail the morphological changes during it.
5. Describe the morphological changes of the pulp in other morphological variants of acute pulpitis.
6. Why is it dangerous not to treat acute pulpitis?

9. A patient with a deep carious cavity of the tooth 47 and a clinic of acute pulpitis sought medical help a few days after the onset of pain, when the sharp pain almost subsided. The diseased tooth was depulpated by a dentist. The pulp had a gray-black color, an unpleasant smell.

1. With what morphological variant of acute pulpitis did the patient go to the dentist?
2. Why does the pulp have a black color in this variant of pulpitis?
3. How can you explain the pathogenesis of the formation of this pigment?
4. Name the etiological factor that caused pulpitis in this case. What pathology of tooth 47 preceded the development of pulpitis?
5. List all successively developed morphological changes of the pulp in the patient described in the task.
6. Explain why the patient described in the task initially had severe pain? Explain why then the pain subsided?

10. The patient has spontaneous pain of moderate intensity in the lower jaw area on the right, independent of the time of day, intensified by chemical and thermal stimuli. When examining the oral cavity, a carious cavity was found in the crown of the tooth 35, in it, the so-called pulp polyp. Chronic pulpitis was diagnosed.

1. Name a variant of chronic pulpitis in the patient.
2. What morphological type of inflammation does it have?
3. Describe in detail the morphological changes of the pulp with this variant of pulpitis.
4. What is a pulp polyp?
5. What is the possible complication of pulpitis?
6. Why is it dangerous not to treat pulpitis at the dentist?

11. A 40-year-old man with a deep carious tooth cavity 47. Suddenly there were severe pains, swelling of the surrounding soft tissues of the gums and cheeks (flux) developed. The dentist diagnosed acute periodontitis.

1. Define periodontitis.
2. Name the main causes of periodontitis.
3. Specify the possible ways of infection penetration into the periodontium. What is the path of infection in the patient described in the task?
4. What types of periodontitis are isolated by localization?
5. Specify the most frequent localization of periodontitis.

6. List the morphological variants of acute periodontitis.
7. Name the outcomes of acute periodontitis.

12. The patient complained of acute throbbing pain in the tooth area 35. The tooth seems to have grown, the closing of the jaws causes increased pain. On examination, pronounced swelling of the gums and soft tissues of the cheek. The crown of the tooth 35 is significantly destroyed. Acute periodontitis was diagnosed.

1. Define periodontitis.
2. Name the morphological variants of acute periodontitis.
3. Describe in detail the morphological changes in them.
4. What is the name of the change in the soft tissues of the oral cavity, gums, cheeks in acute periodontitis? What morphological changes develop in them at the same time?
5. What complications are possible in the presence of acute periodontitis?
6. List the outcomes of acute periodontitis.

13. A 35-year-old patient was examined by a dentist, a carious cavity of the tooth 36 was found, the percussion of the tooth is painful. On the radiograph, according to the root of the tooth 36, the rarefaction zone of the alveolar bone with smooth, clear edges 0.3 cm in diameter is determined. Chronic granulomatous apical periodontitis was diagnosed.

1. Explain the pathogenesis of periodontitis in the patient.
2. Name the morphological variants of chronic granulomatous periodontitis (granulomas).
3. Describe morphological (microscopic) changes in each variant of chronic granulomatous periodontitis (changes in periodontal, cement, bone tissue of the alveoli).
4. What changes in the alveolar bone have developed in the patient described in the task, according to the X-ray?
5. What are the outcomes of chronic periodontitis?
6. Why is it dangerous not to treat chronic periodontitis at the dentist?

14. The patient complains of aching, periodically worsening pains in the tooth area 11. The percussion of the tooth is painful. There is a large filling in the crown of the tooth 11. On the radiograph, respectively, the periapical zone of the root of the tooth is characterized by a rarefaction of the bone tissue of the alveoli with uneven edges. Chronic granulating periodontitis was diagnosed.

1. Describe the morphological (microscopic) changes of the periodontium in chronic granulating periodontitis.
2. What is the morphological type of inflammation that occurs in chronic periodontitis?
3. What changes in the bone tissue of the tooth socket were in the patient described in the task, according to the X-ray?
4. What changes in cement and detina develop in chronic periodontitis?
5. What is the danger of chronic periodontitis, if it even bothers the patient a little?
6. Is it possible in this case to talk about the focus of odontogenic infection and why?

15. A 30-year-old man has many carious teeth, has not been seen by a dentist for a long time. The last treatment is associated with the appearance of pain in the area of the lower molar. There is a swelling of the gums near this tooth and the separation of pus along the fistula. An X-ray was taken, an opinion was expressed about the presence of granulating periodontitis with exacerbation.

1. Name the morphological variants of chronic periodontitis.
2. Describe in detail the histological (microscopic) picture of chronic granulating periodontitis (changes in periodontal, cement and dentin, bone tissue of the alveoli).
3. What morphological changes are added to the picture of chronic periodontitis with exacerbation?
4. What is a fistula, how is it formed?
5. List the outcomes of chronic periodontitis.

16. A patient with complaints of pain in the lower jaw area, an increase in body temperature of 37.8 ° C was taken to the hospital's emergency room. There is swelling and hyperemia of the mucous membrane along the transitional fold in the teeth 45, 46, 47, mobility of the tooth 47, pain with percussion of the latter. The diagnosis was made of exacerbation of chronic periodontitis, acute periostitis of the lower jaw on the right.

1. Define periodontitis.
2. Define periostitis.
3. Name the morphological changes characteristic of chronic periodontitis.
4. What morphological changes of the periodontium were added to those already present during the exacerbation?
5. Explain the relationship of periodontitis with periostitis.

6. Name the possible morphological changes of the periosteum in a patient diagnosed with acute periostitis.

17. A patient came to the dental office of the polyclinic with complaints of soreness, burning sensation, bleeding gums. On examination, the gingival papillae are swollen, cyanotic. There is a powerful plaque and tartar. Treatment of pathology with mandatory removal of stones has been started.

1. What is plaque?
2. What is tartar?
3. How and where is tartar formed?
4. What is the pathology of the patient's gums (your diagnosis)?
5. Describe the microscopic (histological) changes in the gums with this pathology.
6. What is the danger of such pathology for the patient if he is not provided with therapeutic measures?

18. A 46-year-old patient has been complaining of bleeding gums for a long time. When examining the oral cavity, the dentist found an increase and hyperemia of the gingival papillae of the lower jaw. Chronic gingivitis was diagnosed, outpatient treatment was started.

1. Define gingivitis?
2. What types of chronic gingivitis are isolated, taking into account the features of inflammatory changes?
3. Describe the microscopic changes in the gingival mucosa in various types of chronic gingivitis.
4. List the local factors contributing to the development of chronic gingivitis.
5. What are the outcomes of chronic gingivitis (what kind of disease can chronic gingivitis lead to)?

19. Currently, periodontitis is considered the second most common dental disease. More than 50% of the population over 30 years of age are affected by this disease to one degree or another, which requires the close attention of dentists, timely diagnosis and effective planned treatment

1. What is periodontal disease (which structures are combined into this concept)?
2. Define periodontitis.
3. Name the morphological changes that occur in periodontitis.

4. List the degrees of periodontitis and name their defining criteria.
5. What are the consequences of periodontitis of a local nature?
6. Specify the consequences of periodontitis of a general nature.

20. The patient has severe pathology of the maxillary region. When examining the oral cavity, the gingival papillae of the lower jaw are swollen, cyanotic. Pressing the instrument on the gingival edge causes purulent contents to be released from under the gum. There is a deposition of tartar. X-ray examination was performed, periodontitis was diagnosed.

1. Define periodontitis.
2. What do you call the pathological process of the gums found in the patient described in the task?
3. What significance does it have in the development of periodontitis?
4. What is a pathological dentoalveolar pocket and how is it formed?
5. What is a periodontal pocket and how is it formed?
6. What changes in the bone tissue of the alveoli occur in periodontitis?
7. Name the consequences of periodontitis of a local nature.

21. A patient who has worked for a long time in the northern regions of the country turned to the dentist. Complains of loosening of teeth. On examination, paleness and atrophy of the gingival margin in the area of part of the teeth with exposure of the neck of the teeth were found. The X-ray shows atrophy of the alveolar process of the lower jaw, respectively, to these teeth. Periodontal disease was diagnosed.

1. Define periodontal disease.
2. What is the most frequent localization of lesions in periodontal disease?
3. Describe in detail the morphological changes characteristic of periodontal disease.
4. What are the consequences of periodontal disease?
5. What non-carious diseases of the hard tissues of the tooth are often combinedwith?
6. Is periodontal disease common?
7. What is the etiology of periodontal disease?

22. A patient came to the surgical department of the dental clinic with complaints of nodular growth on the gum in the area of the right premolar of the lower jaw. Surgical removal of the

pathological focus was performed, the material was sent for histological examination to the pathology department. Histological conclusion of epulid.

1. What is epulide?
2. Name the synonyms of epulide.
3. Describe the macroscopic appearance of the epulide (appearance, typical localization, features of the base).
4. Name the reasons for its formation.
5. List the epulide variants distinguished by the histological picture.
6. Is epulide often found in dental practice?
7. Why is surgical removal of epulide necessary?

23. A patient was admitted to the emergency room at night with complaints of pain in the tooth area 46, the pain is constant, it hurts to touch the tooth. There is pronounced swelling and hyperemia of the gums. On palpation, there is acute pain and fluctuation. The tooth is sealed, there is sharp pain during percussion. Body temperature 37.8 °C. Acute periostitis was diagnosed.

1. Define periostitis.
2. What do you think is the morphological type of periostitis in the patient?
3. Describe in detail the microscopic (histological) changes in the periosteum with this type of periostitis.
4. What pathology of tooth 46 is probably associated with the development of periostitis?
5. Describe in detail the pathogenesis of periostitis in such cases.
6. Name all the morphological types of periostitis known to you.

24. A patient was hospitalized in the department of maxillofacial surgery. diagnosed with acute purulent odontogenic osteomyelitis of the lower jaw for active surgical treatment. The crowns of teeth 36, 37 are significantly destroyed. There are a number of clinical and radiological symptoms that made it possible to diagnose osteomyelitis.

1. Define osteomyelitis.
2. How do you understand the conclusion of odontogenic osteomyelitis? Describe its pathogenesis in this patient?
3. Name the main morphological changes in osteomyelitis.
4. What is a sequester?

5. What is a sequestral cavity?

6. Why is the patient shown surgical treatment?

25. The patient has been suffering from osteomyelitis of the lower jaw for a long time with the presence of fistulas and sequestration. He was operated on several times, sequestration was removed, but there was no complete cure. Recently, a protein has appeared in the urine analysis.

1. Name the microscopic (histological) changes characteristic of chronic purulent osteomyelitis.
2. What is a sequester, how is it formed?
3. What is a sequestral cavity?
4. Describe the structure of the wall of the sequestral cavity in chronic osteomyelitis.
5. What is a fistula?
6. What kidney pathology is apparently associated with the appearance of protein in the urine of this patient?

26. Among the surgical and biopsy material coming to the pathology department from the department of maxillofacial surgery of the regional hospital, some are odontogenic cysts, among them there is a radicular cyst.

1. Define odontogenic cysts of jaw bones.
2. How is it customary to classify odontogenic cysts of the jaw bones?
3. What is a radicular cyst? How is it formed (its pathogenesis)?
4. Specify the most frequent localization of the radicular cyst.
5. Describe the microscopic (histological) structure of the radicular cyst (wall, inner lining, contents).
6. Name the complications that a radicular cyst can give.
7. What is the frequency of radicular cysts among odontogenic?

27. The patient was operated on for an odontogenic cyst. The removed cyst was sent for microscopic (histological) examination to the pathology department of the hospital. Taking into account the clinic, localization, morphological data, the opinion is expressed about the presence of a primordial cyst.

1. What type of odontogenic maxillary cysts should it be attributed to (inflammatory or dysontogenetic)?

2. Why is it now called keratocystic tumor?

3. Describe the main clinical and morphological signs of a primordial cyst (localization, wall, inner lining, contents).

4. Specify the features of the course of primordial cysts.

5. The frequency of occurrence of a primordial cyst (keratocystic tumor) of the jaw bones?

6. What other odontogenic cysts do you know?

28. During radiography, a 32-year-old patient revealed a rounded enlightenment of the bone tissue of the lower jaw, respectively, in the area of the right canine with inclusions of tooth elements. An odontogenic cyst, apparently follicular, was diagnosed.

1. Give a classification of odontogenic cysts of jaw bones by etiopathogenesis.

2. What does a follicular cyst belong to?

3. How do you understand the pathogenesis of a follicular cyst?

4. Describe the clinical and morphological signs of a follicular cyst (localization, wall structure, internal lining, contents).

5. Is such a cyst common?

6. Which odontogenic cyst is most common?

29. A 22-year-old patient was diagnosed with rheumatism, rheumocarditis. In order to identify the foci of latent infection, the patient is referred to the dentist. On examination, carious cavities of several teeth were found, percussion of tooth 36 and palpation of the adjacent gum are painful. On the X-ray there are changes in the bone tissue of the alveoli. A diagnosis of chronic periodontitis in the acute stage was made. Treatment has been started.

1. Can this patient's chronic periodontitis in the acute stage be considered as a focus of odontogenic infection? Why do you think so?

2. Give a definition of odontogenic infection?

3. What diseases of the purulent-inflammatory nature of the dental system can be combined into this concept?

4. Name purulent-inflammatory diseases that can develop as a complication of odontogenic infection.

5. Name the general somatic diseases pathogenetically associated with odontogenic infection.

6. What else is dangerous for a patient suffering from rheumatism, the presence of a focus of odontogenic infection?

30. A 45-year-old man was sent to the dental department of the regional hospital with complaints of deformity of the facial skeleton. Upon examination and X-ray examination, it turned out that there is a fusiform swelling of the lower jaw bone. A tumor was suspected, a biopsy was performed. According to the biopsy material, a histological conclusion was given - ameloblastoma.

1. Define ameloblastoma?
2. List the main macroscopic features of this tumor (localization, view on the incision).
3. Name the main histological (microscopic) features of ameloblastoma.
4. Specify the features of the growth of this tumor (growth rate, type of growth relative to surrounding tissues).
5. What other odontogenic tumors do you know (mature and immature, benign and malignant)?
6. Which odontogenic tumor is more common?

31. A patient suffering from gastritis for many years complained of pain in the oral cavity. The general state of health is satisfactory. When examined on the mucous membrane of the oral cavity and lower lip, there are several eroded areas of a rounded shape with a diameter of 0.5 cm, covered with a film coating and surrounded by a narrow border of hyperemia. Aphthous stomatitis was diagnosed.

1. Define stomatitis.
2. What is afta, describe in detail its microscopic picture.
3. Name the outcome of the afta.
4. What is the etiology of aphthous stomatitis?
5. Is a relapse possible?
6. List the types of stomatitis distinguished by the features of inflammatory changes in the mucous membrane.
7. List the types of stomatitis that are distinguished as separate nosological units.

32. A 32-year-old patient went to the dentist with complaints of pain in the oral cavity when eating, burning sensation, bad breath. Body temperature 37.5 °C. Examination of the oral cavity

revealed areas of hyperemia of the mucous membrane, covered with gray plaque and ulcerated areas of bright red color (erosion, ulcers). Ulcerative stomatitis was diagnosed.

1. Define stomatitis.
2. Name the microscopic (histological) features of ulcerative stomatitis.
3. What is erosion? How is it formed?
4. What is an ulcer? How are they formed?
5. What is the outcome of erosion, what is the outcome of ulcers?
6. What is the possible etiology of ulcerative stomatitis?

33. When examining a 35-year-old man, whitish spots and small plaques were found on the mucous membrane of the cheeks, respectively, the line of teeth closure, determined by palpation as dense formations. The patient does not complain. From anamnesis it is established that he smokes a lot. Leukoplakia was diagnosed.

1. Define leukoplakia.
2. Indicate the possible localization of leukoplakia in the oral cavity.
3. Describe the macroscopic picture of leukoplakia. What clinical and morphological forms of leukoplakia are distinguished?
4. Describe the microscopic (histological) picture of leukoplakia. What types of leukoplakia are distinguished by histological features?
5. Highlight epithelial changes that are dangerous for malignancy.
6. Name a microscopic (histological) form of cancer that can develop on the basis of leukoplakia.
7. What should be the treatment and management of a patient diagnosed with oral leukoplakia?

34. A 75-year-old man turned to the polyclinic of the regional oncological dispensary with complaints about a long-term non-healing pathological focus on the mucous membrane of the lower lip in the form of a thickening with an uneven rough surface of white color. Warty leukoplakia was diagnosed. A biopsy of the pathological site was performed. Histological examination of the biopsy material revealed changes in the multilayer squamous epithelium: hyperkeratosis, hyperplasia, acanthosis, dysplasia of the 3rd degree, sometimes a picture of "cancer in place".

1. Select from the listed changes of the epithelium the changes that directly precede the development of cancer.
2. Define epithelial dysplasia.
3. Define "cancer in place".
4. What epithelial changes are currently combined in the concept of squamous intraepithelial neoplasia (PIN)?
5. Why was a biopsy performed on the patient described in the task?
6. What are the tactics of managing a patient with grade 3 dysplasia and "cancer in place" of the lower lip?
7. Name the histological (microscopic) variant of lower lip cancer that develops with such a pathology.

35. A 60-year-old man diagnosed with cancer of the lower lip underwent a course of radiation therapy with a positive effect, currently the tumor on the lip is not visually determined. In terms of further treatment, surgical removal of the lymph nodes of the neck and submandibular area is planned.

1. Name the typical localization of a cancerous tumor on the lower lip.
2. List the macroscopic forms of lower lip cancer.
3. Which microscopic (histological) variant of cancer is typical for the lower lip?
4. Describe the histological (microscopic) picture of such a cancer.
5. Why does the patient described in the task need surgical removal of lymph nodes?
6. What is the overall prognosis for lower lip cancer (relatively unfavorable, unfavorable)?

36. A patient with a diagnosis of tongue cancer is being treated at the city oncological dispensary. Initially, the tumor was detected during an examination of the oral cavity by a dentist, who referred the patient to an oncologist. The diagnosis of tongue cancer was established by histological (microscopic) examination of biopsy material.

1. What macroscopic forms of tongue cancer are isolated?
2. What could the dentist see when examining the oral cavity?
3. Name the most frequent localization of tongue cancer.
4. Specify the histological variant of cancer typical for the tongue.
5. Describe his histological (microscopic) picture.

6. Why is a biopsy necessary for a clinical diagnosis of a tumor. What opportunities does a biopsy provide for cancer diagnosis?

37. A patient was taken to the hospital with complaints of increasing pain in the area of the right parotid gland. The gland is enlarged in volume, painful on palpation. Body temperature 37.9 °C. Upon examination, purulent contents are released from the duct of the gland. Acute sialoadenitis was diagnosed.

1. What do you think is the morphological type of inflammation that has developed in the salivary gland?
2. Describe the microscopic (histological) picture of changes in the salivary gland with this morphological type of inflammation.
3. Specify the etiology of this sialoadenitis.
4. Possible outcomes of the described sialoadenitis?
5. What other types of sialoadenitis do you know (acute and chronic)?
6. What is the etiology of different types of sialoadenitis?

38. A 45-year-old woman, a doctor by profession, noticed a thickening and enlargement of the left parotid gland. The patient underwent surgical removal of the tumor, followed by histological examination of the surgical material. A mixed tumor (pleomorphic adenoma) of the salivary gland was diagnosed.

1. Describe the macroscopic structure of this tumor.
2. Describe the microscopic (histological) structure of this tumor.
3. Is it a mature or immature tumor?
4. Is it a benign or malignant tumor?
5. Is such a tumor often found in the salivary glands?
6. Can it be malignated? Often or rarely?
7. What other tumors of the salivary glands do you know (mature and immature, benign and malignant)?

39. A biopsy material was sent to the pathologist for histological (microscopic) examination – a fragment of a tumor of the hard palate. It is known from the clinic that the tumor grew rapidly. According to the histological picture, the conclusion is adenocystic carcinoma (cylindroma) of the small salivary gland.

1. Name the main variants of salivary gland carcinomas.

2. Specify the nature of the growth of salivary gland carcinomas in relation to the surrounding tissues.

3. Can salivary gland carcinomas metastasize and in what ways?

4. For what purpose was the biopsy and histological (microscopic) examination of the tumor of the hard palate performed.

5. How common is adenocystic carcinoma (cylindroma) of the salivary gland of the oral cavity?

6. Describe its microscopic (histological) structure (parenchyma, stroma).

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PATHOLOGICAL ANATOMY OF ORAL DISEASES

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Подписано в печать Формат 60×84 1/16
Бумага офсетная. Печать офсетная. Гарнитура Таймс.
Усл. Печ.л. Уч.изд.л.
Заказ № Тираж

Отпечатано в типографии Нижегородского госуниверситета
им. Н.И. Лобачевского
603600, г.Нижний Новгород, ул.Большая Покровская, 37