

PERIODONTOLOGY

State exam syllabus

1. Anatomy of the periodontal complex. Periodontal tissues – macroscopic and microscopic anatomy of the gingiva. Supracrestal tissue attachment.
2. Alveolar bone – morphology, blood and nerve supply, function. Root cementum – structure and function as part of periodontal tissues. Periodontal ligament – structure and function.
3. Etiology of periodontal diseases – current concept.
4. Dental biofilm – definition, development, bacterial composition, bacterial interrelationships, maturation.
5. Anatomical prerequisites for initiation and progression of periodontal destruction. Significant local risk factors for initiation and progression of periodontal diseases. Diagnosis and correction.
6. Significant systemic risk factors for initiation and progression of periodontal diseases.
7. Criteria for defining periodontal pathogens from bacterial biofilm. Suspected periodontal pathogens, virulence factors. Direct and indirect influence on the host.
8. Microbiology of periodontal diseases. Periodontitis as opportunistic infection. Bacterial interrelationships. Microbial complexes, mechanisms of pathogenicity and their significance in different periodontal diseases.
9. Pathogenesis of periodontal diseases – current concept for initiation and progression of inflammatory destructive diseases of the gingiva and the periodontium.
10. Pathogenesis of periodontal diseases. Defence potential of host response.
11. Pathogenesis of periodontal diseases – host response destructive aspect. Analysis of the destructive host response.
12. Pathomorphology of gingivitis and periodontitis.
13. New classification of periodontal and peri-implant diseases and conditions – groups and criteria for classification.
14. New classification of periodontal and peri-implant diseases and conditions – staging and grading of periodontitis. Clinical interpretation.
15. Methods for evaluation of oral hygiene and gingival status – results, interpretation, clinical significance.
16. Periodontal status – criteria, diagnostic significance, influence on the treatment modalities.
17. Gingival crevicular fluid/exudate – origin, composition, function. Biochemical tests of crevicular fluid – methods, significance for diagnostic prediction of periodontal diseases.
18. Radiographic diagnosis of periodontal diseases – methods, radiographic bone loss criteria, diagnostic significance.

19. Morphology of bone defects, measurements. Indications for treatment. Therapeutic decision making on the defect morphology.
20. Microbiological diagnosis of periodontal diseases – indications, methods, diagnostic significance. Techniques for the detection and enumeration of bacteria in oral biofilm samples.
21. Risk factors, determinants and predictors for periodontal disease. Individual risk assessment for periodontal disease progression.
22. Personal plaque control. Importance for the prophylaxis and treatment of periodontal diseases. Characteristics in health and in periodontal disease – antimicrobial and anti-inflammatory agents (products) and procedures.
23. Chemical plaque biofilm control – rational, indications and contraindications. Agents for chemical plaque control.
24. New classification of gingival diseases (2017). Criteria for classification.
25. Plaque-induced gingival diseases. Etiology, clinical presentation, diagnosis, treatment, evolution.
26. Necrotizing periodontal diseases. Etiology, clinical presentation, pathomorphology, diagnosis, progression, treatment.
27. Plaque-induced gingivitis modulated by sex steroid hormones. Clinical presentation, diagnosis, treatment, prognosis and prevention.
28. Gingival enlargement. Etiology, risk factors, diagnosis, clinical presentation, treatment.
29. Structural biology and physiology of oral mucosa. Clinical and paraclinical methods for examination of oral mucosa diseases.
30. Traumatic lesions of oral mucosa. Diagnosis, treatment and prevention.
31. Non-plaque-induced gingival diseases – classification, etiologic factors. Specific characteristics of diagnosis and treatment.
32. Non-plaque-induced gingival diseases with specific bacterial origin – etiology, clinical presentation, diagnosis, evolution and prognosis.
33. Non-plaque-induced gingival diseases with viral origin. Oral manifestation of Human Immunodeficiency infection and Acquired Immune Deficiency Syndrome.
34. Non-plaque-induced gingival diseases with fungal origin. Etiology, clinical presentation, diagnosis, treatment. Denture stomatitis.
35. Non-plaque-induced gingival diseases connected with vesiculobullous dermatological diseases, lichen planus, leukoplakia – clinical presentation, diagnosis, evolution, prognosis and treatment.
36. Non-plaque-induced gingival diseases associated with allergic reactions. Clinical presentation, diagnosis, treatment. Erythema multiforme.
37. Periodontitis – clinical presentation, diagnosis, evolution, prognosis.
38. Periodontitis – treatment plan, considerations and phases in relation to the stage and grade of periodontitis.
39. Non-surgical periodontal therapy – methods, indications, sequence of procedures, instruments.

40. Systemic antibiotic therapy for periodontal diseases – rational, indications. Host modulation in periodontitis – action, indications, agents.
41. Periodontal pocket treatment in the initial therapy – scaling and root planing – goal, sequence of procedures, effectiveness. Topical antimicrobial therapy for the periodontal pocket – rational, indications.
42. Re-evaluation after non-surgical periodontal therapy. Interpretation of the measurements and planning of next treatment phase.
43. Effectiveness of non-surgical periodontal therapy. Periodontal pocket healing.
44. Corrective phase in the treatment plan of periodontitis – planning of surgical periodontal therapy.
45. Resective periodontal surgery. Indications, limitations and contraindications.
46. Regenerative periodontal therapy – approaches, biologic concept, effectiveness.
47. Regenerative periodontal therapy – factors, influencing therapeutic success. Rules for achieving predictive result. Current surgical approaches.
48. Supportive periodontal therapy – objectives, diagnostic criteria, recall intervals. Assessment of risk for progression.
49. Diagnosis, prediction and prevention of recurrence and progression of periodontal diseases.
50. Refractory periodontal disease – factors, clinical parameters, diagnosis. Treatment.
51. Systemic diseases and conditions that affect the periodontal attachment apparatus – classification, diagnostic criteria, influence on the treatment planning.
52. Periodontitis, associated with diabetes. Interdependence, diagnosis. Mechanisms of two-way relationship. Treatment plan considerations.
53. Periodontitis modified by environmental and behaviour factors. Effects of smoking and medication on the severity of periodontal diseases.
54. Periodontitis as manifestation of systemic diseases: Papillon-Lefevre syndrome, Down syndrome – pathogenesis, clinical presentation, diagnosis, treatment, evolution and prognosis.
55. Periodontitis as manifestation of systemic diseases: blood disorders – clinical presentation, diagnosis, treatment and prognosis.
56. New classification of periodontal abscesses and endo-periodontal lesions. Classification of periodontal abscesses according to the involved etiological factors.
57. Acute periodontal conditions – abscesses, fractures and root resorption. Etiology, clinical presentation, diagnosis, treatment.
58. Endo-periodontal lesions. Classification, clinical presentation, diagnosis, treatment.
59. Trauma from occlusion – definition, morphologic changes in periodontal tissues, clinical presentation, treatment.
60. Tooth stabilization of periodontally compromised dentition. Indications and techniques.
61. Peri-implant interface – histological characteristic. Peri-implant health – definition, diagnosis.

62. Peri-implant mucositis – definition, etiology, diagnosis, treatment and prognosis, prevention.

63. Peri-implantitis – definition, etiology, diagnosis, treatment, prognosis and prevention.

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Antoaneta Mlachkova

ASSOC. PROF. A. MLACHKOVA, PhD

Head of Department