Факултет по Дентална медицина
Катедра по оперативно зъболечение и ендодонтия
4002 Пловдив, бул. „Христо Ботев“ №3
operative.dentistryl@fdm.mu-plovdiv.bg

Faculty of Dental Medicine
Department of Operative Dentistry and Endodontics
3 Hristo Botev, Blvd., 4002 Plovdiv
operative.dentistry@fdm.mu-plovdiv.bg

SYLLABUS ON OPERATIVE DENTISTRY AND ENDODONTICS
PRECLINICAL COURSE
III COURSE

CARIESOLOGY

1. Dental caries – definition and treatment-related problems. The science of operative dentistry and its subject.
2. Basic principles of operative dentistry. Cavity – definition, elements.
3. Cavity classification. Stages of cavity preparation.
4. Masticatory forces – direction and neutralization.
5. Anatomy and histology of the hard dental tissues in relation to their treatment – the enamel, the dentin, the cement.
6. Anatomy of the hard dental tissues – vestibular and lingual contours, proximal contacts, embrasures, occlusal surfaces.
7. Instruments for cavity preparation. Tooth numbering systems.
8. Class I cavity preparation – stages of preparation, instruments (special features)
9. Class I cavity preparation for amalgam – instruments, stages of preparation. Conservative preparation of small carious lesions. Preparation of extensive carious lesions.
10. Class II cavity preparation for amalgam – stages of preparation, additional types of retention – dentin chambers and pins.
11. Class II cavity preparation for indirect restorations – indications, stages, retentions.
12. Class I and Class II cavity preparation for composite materials – indications, critical analysis stages of preparation, retentions.
13. Class III cavity preparation for composite materials – indications, cavity preparation – special features.
14. Class IV cavity preparation for composite materials – indications, stages of preparation, additional types of retention.
15. Class V cavity preparation for amalgam and indirect restorations – indications, stages of preparation, retentions.
16. Class V cavity preparation for composite materials – indications, stages of preparation, comparative evaluation of class V cavities for composite materials, amalgam and indirect restorations.
17. Characteristics of the cavity as a dentin wound; the state of the pulp, smear layer, medicatio cavi dentis.
18. Restorative materials – types, indications; medico-biological and mechanical requirements.
19. Bases – types, purpose, biological and mechanical requirements.
20. Liners – types, purpose, methods for placement.
21. Instruments and methods for the placement of bases in class I-V cavities for amalgam and indirect restorations. Critical analysis of the materials used.

22. Dental amalgam – definition, types of amalgam, physico-mechanical and medico-biological properties of amalgam restorations.
23. Techniques for the fabrication of amalgam restorations, instruments and subsidiary devices.
24.Glass ionomer cements – composition, properties, purpose, working techniques.
25. Composite materials – composition, classification, properties.
26. Adhesive systems – definition, types, properties and indications. Characteristics of the micromechanical bond with enamel and dentin.
27. Fabrication of class I and class II composite restorations – stages, instruments, special features. Occlusal contacts.
28. Fabrication of class III composite restorations – stages, instruments, special features.
29. Fabrication of class IV composite restorations – stages, instruments, special features.
30. Fabrication of class V composite restorations – stages, instruments, special features.
31. Indirect restorations – types, indications, cavity preparation – special features
32. Fabrication of indirect restorations – stages, techniques for taking an impression, critical analysis.

ENDODONTICS

33. Clinical anatomy of the pulp chamber – the pulp chamber in different tooth groups.
34. Clinical anatomy of the pulp chamber – root canals and their number, configuration, shape.
35. The apical foramen – special features.
36. Isolation of the operative field in endodontics – goals and purpose. Basic instruments and materials for isolation – types, characteristics, working techniques. Isolation of teeth with destroyed crowns – methods for approaching the problem.
37. Endodontic access – goals. The endodontic cavity in different tooth groups.
38. Endodontic access – accessing the pulp cavity in the different teeth groups; stages, instruments.
39. Contents of the pulp chamber. Removal of the contents, instruments. Accessing the root canal orifices in different tooth groups.
40. Types of instruments for scouting of the root canals – description.
41. Types of endodontic instruments for cleaning and shaping of the root canals – classification, standardization of the instruments.
42. Hand instruments with .02 taper for cleaning and shaping of the root canals – types, description, indications, working technique.
43. Hand instruments with larger taper for cleaning and shaping of the root canal system.
44. Machine-driven endodontic instruments – characteristics, working techniques, advantages and disadvantages.
45. Establishing of the working length – methods, critical analysis.
46. Conventional technique for cleaning and shaping of the root canal system.
47. Schilder’s preparation technique .
48. Machine-driven root canal preparation with ProTaper.
49. Machine-driven preparation with GT.
50. Machine-driven preparation with K3.

51. Machine-driven preparation with QUANTEC FILE.
52. Chemical substances, used during prepration of the root canal system – lubricants, irrigating solutions. Goals and methods for application.
53. Characteristics of the prepared root canal.
54. Obturation of the root canal system – goals and conditions.
55. Root canal filling materials – requirements, types.
56. Root canal filling materials – soft non-setting pastes.
57. Root canal filling materials – setting pastes.
58. Hard root canal filling materials.
59. Methods for root canal obturation with pastes – types, advantages and disadvantages.
60. Schilder's technique for obturation of the root canal system – vertical compaction.
61. Warm condensation techniques – OBTURA III, SYSTEM B, ELEMENTS.
62. The THERMAFILL system for root canal obturation.
63. Restoration of endodontically treated teeth – special features, post systems, critical analysis.
64. Errors during the preparation, medication and obturation of the root canal system.

Изготвил:
Хабилитираните лица от Катедрата ОЗЕ

Съгласувал:
(проф. д-р Н. Манчорова, дм,
Ръководител Катедра ОЗЕ)

Утвърдена на Катедрен съвет № 12/16.07.2020 г.