Study program: Integrated Studies of Dentistry

Type and level of the study program: Integrated Academic Studies of Dentistry

Course title: Maxillary orthopedics II (DV-MAXOR)

Teacher: Djordje D. Petrovic, Predrag V. Vucinic, Stojan M. Ivic

Course status: Compulsory

ECTS Credits: 2

Condition: Orthodontics I

Course aim

The objective of the course in Orthodontics II is to acquaint students with procedures and measures for establishing complete diagnosis of orthodontic anomalies, treatment stage planning according to the established diagnosis, general principles of orthodontic treatment and application of diverse orthodontic equipment depending on patient's age and psychical maturity. Mastering abilities of critical thinking and linking different basic and advanced diagnostic methods with an aim of training future dentists to establish reliable and timely diagnosis in view of orthodontic patient triage.

Defining the most appropriate development stage and methods of preventive action against dysgnathia or appropriately indicate the orthodontic treatment to provide better functionality of the orofacial system and facial appearance, thus contributing to improvement of general physical and psychical health.

Expected outcome of the course:

Possibilities of prevention and application of interceptive measures aimed at preventing the development and aggravation of orthodontic impairments
Basic principles in the therapy of orthodontic impairments
Therapeutic capacities of particular orthodontic apparatuses
Taking anatomical imprints
Establishing morphological and functional diagnosis on the basis of clinical examination
Establishing of final diagnosis after completing diagnostic procedures and analyzing the findings
Planning of orthodontic therapy
Conducting orthodontic therapy using various orthodontic apparatuses
Application of preventive and interceptive measures
Interdisciplinary approach in treating severe orthodontic impairments

Course description

Theoretical education

1. Introduction to orthodontic records, medical documentation. 2. Medical history (importance in orthodontics) since birth to the moment of examination; family history. 3. Present status - general: height, body weight, potential bone deformities, etc. 4. Present status – local: extraoral, morphological analysis of the face while still and in occlusion. 5. Functional examination. 6. Present status – local: intraoral, general features of milk and permanent teeth and tooth lines, shape, position, size of the tongue, incisor relationship in saggital and vertical plane in space, mid-point of tooth line. 7. Prevention, interceptive orthodontics. 8. General causal therapy. 9. Biological principles of teeth displacement – response of soft tissues to relevant stimuli. 10. Extraction therapy – systematic, compensatory, compromising. 11. Active mobile apparatuses – parts, role of labial arch. 12. Elastic wire elements – springs, screws, bow (ridge). 13. Basic elements of functional apparatus – monoblock, reduced activators, vestibular plane. 14. Basic elements of functional apparatus – bionator acc. to Balters, function regulator acc. to Frankel, propulsor. 15. Fixed apparatuses – combination of mobile and fixed treatment. 16. Impairment therapy in the period of mixed and permanent dentition in transversal direction. 17. Therapy of impairments of teeth and jaws in saggital direction. 18. Therapy of impairments of teeth and jaws in vertical direction. 19. Retention of the obtained therapy outcome, mouth hygiene and hygiene of the apparatus during therapy. 20. Interdisciplinary cooperation - therapy

Practical education: exercises, other forms of education, research related activities

1. Medical history. 2. General and local extraoral clinical examination (body constitution, shape of the head and face, assessment of vertical and saggital face esthetics, biometric field). 3. Intraoral clinical examination, assessment of occlusal relationships, determining dental status and age. 4. functional analysis (breathing, mastication, swallowing, speech, movements, lip position, determining the position of physiological inactivity and interocclusal distance). 5. Analysis of X-ray scans in orthodontics (orthopantomogram, teleroentgen profile of the head, rtg of the hand, parallax system, bite scans). 6. Reading and interpretation of diagnostic findings, establishing final diagnosis and therapy planning. 7. Performing complete diagnostic procedure in patients with diverse orthodontic impairments. 8. Taking imprints and individual bite in wax mould, medical history, determining the extraoral and intraoral findings. 9. Functional examination. 10. Analysis of study models, RTG scans. 11. Establishing of final diagnosis and therapy planning. 12. Delivery of active mobile apparatus. 13. Control examinations and monitoring of the patient. Admission and examination of new patients. 14. Clinical-functional examination and analysis of study models and RTG scans of patients-candidates for functional therapy and establishing the diagnosis. 15. Therapy plan and obtaining construction bite mould. 16. Delivery of functional apparatus (monoblock)to new patients and control of former patients. 17. Processing of patients – candidates for therapy with fixed orthodontic apparatus. 18. Mounting fixed apparatus and monitoring of the therapy. 19. Practicing identification of diverse orthodontic impairments in saggital, transversal and vertical plane; treatment possibilities. 20. Introduction to preventive and interceptive measures at different age (serial extraction, application of spatula, myofunctional exercises, confection and individual vestibular plates, myofunctional appliances). 21. Indications for interdisciplinary cooperation in the diagnostics and treatment of severe deformities of the face and jaws (cleft lip, cleft palate, progeny, skeletal open bite, gothic palate, speech disorders). 22. Consultations related to particular topics

Literature

Compulsory

1. Gardiner J.H. Orthodontics for dental students. Oxford University Press, 1998.
2. Rakosi Thomas. Color Atlas of Dental Medicine, Orthodontic Diagnosis. Thieme, 1993..

Additional

1. Proffit WR, Fields HW, Sarver DM. Contemporary Orthodontics. Mosby Co. 2013.

Number of active classes				Other:
Lectures: 15	Practice: 30	Other types of teaching:	Research related activities:	

Teaching methods

Student activity assessment (maximally 100 points)

Pre-exam activities	**points**	**Final exam**	**points**
Lectures		Written	20
Practices		*skills*	20
Colloquium		Oral	60
Essay			