



“Goce Delcev” University- Stip

**DENTAL SUMMER
SCHOOL & SECOND
INTERNATIONAL
STUDENTS
CONGRESS IN
DENTAL MEDICINE
2019**

Hotel “Desaret”, Ohrid,
N.Macedonia

23.05-26.05.2019



“Goce Delcev” University - Stip



DENTAL SUMMER SCHOOL & SECOND INTERNATIONAL STUDENT’S CONGRESS IN DENTAL MEDICINE 2019

Students of the Faculty of Medical Sciences- Dental Medicine at the University “Goce Delcev” in Stip gladly invites you to participate in Dental Summer School and Second International Student’s Congress which will be attended in Hotel „Desaret”-Ohrid during the period from 23.05.2019 until 26.05.2019.

Dental Summer School is a project that we are especially proud of and grateful for the opportunity to upgrade our theoretical knowledge through the lectures and to perfect our skills through practical workshops.

Motivated by the success of the previous Summer School, we hope for another successful organization that will grow into a tradition, and will be a guide and motivation for future generations.

Enjoy!

Hotel “Desaret”, Ohrid , N. Macedonia - 23.05. - 26.05.2019

AGENDA

First day-Thursday, 23rd May 2019

WELCOME! ENJOY YOUR STAY!

10:00-12:00 Registration of participants

13:00-15:00 Lunch

15:30-16:00 Opening ceremony

Oral presentations-session 1

Chairmen: Prof. d-r Kiro Papakoca, Ass. prof. d-r Katerina Zlatanovska, Mirjana Ristovska

16:00-16:20 *Invited speaker-*
Prof. d-r Rubin Gulaboski, Dean of the Faculty of Medical Sciences
Pandemic Fraud in Science and Publishing

16:20-16:30 **Changes of Root Surface in the Periodontal disease**
Ass. d-r Mihajlo Petrovski, Prof. d-r Ana Minovska
Faculty of Medical Sciences , University “Goce Delcev” – Stip

16:30-16:40 **Contemporary recommendations for the prophylaxis of infective endocarditis**
Author: Monika Siljanovska
Mentor: Doc. d-r Gordana Apostolova
Faculty of Dentistry, University “Ss. Cyril and Methodi”, Skopje

16:40-16:50	Connection between oral and systemic diseases Author: <u>Martin Treneski</u> Co-author: Popovska Viktorija Mentor: Ass. Prof. d-r Natasha Longurova Co-mentor :Prof. d-r Ivona Kovachevska Faculty of Medical Sciences, University "Goce Delcev" - Stip
16:50-17:00	The influence of oral hygienic habits on the occurrence of halitosis in students of dental medicine Author: <u>Stefan Ilievski</u> Co-author: <u>Spase Sulev</u> Mentor: Ass.d-r Mihajlo Petrovski Co-mentor: Mr.Sci d-r Olivera Terzieva-Petrovska Faculty of Medical Sciences, University "Goce Delcev" - Stip
17:00-17:15	Discussion

Oral presentation-session 2

Chairmen: Prof. d-r Cena Dimova, Ass. d-r Mihajlo Petrovski, Spase Sulev

17:30-17:50	<i>Invited speaker-</i> Prof. d-r Cena Dimova, Faculty of Medical Sciences, University "Goce Delcev" The importance of evidence based dentistry in everyday clinical practice
17:50-18:00	The fractures of the zygomatic bone-diagnosis, classifications, therapy Author: <u>Ivan Rakić</u> Mentor: Prof. d-r Dragan Krasić Department of Maxillofacial Surgery Clinic for Dentistry Niš, Faculty of Medicine, University of Niš, Serbia
18:00-18:10	3D movies, 3D clones, and now dentistry has gone digital too Author: <u>Ana Martina Kostadinova</u> Co-author : <u>Martina Ginovska</u> Mentor: Spec. dent. tech. Pavle Apostoloski Faculty of Medical Sciences, University "Goce Delcev" – Stip

18:10-18:20	Orthodontic treatment in patients with diabetes mellitus Author: <u>Slavica Koteva</u> Co- author: Teodora Adzieva Mentor: Ass. d-r Sandra Atanasova Co- mentor: d-r Ljubica Prosheva Faculty of Medical Sciences , University “Goce Delcev” – Stip
18:20-18:30	Pattern of dental malocclusions in Dental Medicine students Author: <u>Milena Crngarova</u> Co-author: Tanja Stefanova Mentor: Ass. d-r Sandra Atanasova Co-mentor: Ass. Prof. d-r Sanja Nashkova Faculty of Medical Sciences, University “Goce Delcev” - Stip
18:30-18:45	Discussion

20:30-00:00

Karaoke Party



Second day-Friday, 24th May 2019

Oral presentation-session 3

Chairmen: Prof. d-r. Kiro Papakoca, Mr.Sci d-r Olivera Terzieva-Petrovska, Hristijan Dimovski

9:30-9:50 *Invited speaker-*

Prof. d-r Kiro Papakoca, Faculty of Medical Sciences, University "Goce Delcev"

Prosthetics solution for different type of edentation with dental implants

9:50-10:00 **A clinical therapy for the treatment of Peri – Implantitis**

Author: Andrej Petrushevski Co – author: Krmzova Valentina

Mentor: Prof. d-r Kiro Papakoca Co – mentor:d-r Krmzova Suzana

Faculty of Medical Sciences , University "Goce Delcev" – Stip

10:00-10:10 **Application of dermal fillers- doctors VS.cosmetic technicians**

Author: Mirjana Ristovska Co-author: Verica Shajkarova

Mentor: d-r Ljubica Prosheva Co-mentor: Ass. d-r Sandra Atanasova

Faculty of Medical Sciences, University "Goce Delcev" – Stip

10:10-10:20 **Red and white aesthetics with all ceramic crowns and bridges**

Author: d-r.spec.Danilo Krstevski Co-authors:d-r Dubravka Angjelic-Krstevska, d-r Katerina Spasovska *PZU "Stela" - Skopje*

Mentor: Prof.d-r Dragoljub Veleski Co – mentor:Prof.d-r Cena Dimova

Faculty of Medical Sciences , University "Goce Delcev" – Stip

10:20-10:30 **Aesthetic treatment of first upper premolar**

Author: Maja Trajkova Co-author: Nina Dimevska

Mentor:d-r Verica Toneva Stojmenova Co-mentor:Prof. d-r Ivona Kovacevska

Faculty of Medical Sciences , University "Goce Delcev" – Stip

10:30-10:45 Discussion

Workshops

11:00-14:00 **CAD/ Design and types of aesthetic layering zirconia**

Spec.dent.tech. Kiril Mitevski, Dent.tech. Kiril Martulkov, Dent.tech. Konstadin Martulkov

11:00-14:00 **Introduction to Dental implantology- Basic Surgical Procedures of Implant Placement**

Prof. d-r Kiro Papakoca ,Ass. d-r Mihajlo Petrovski, d-r
Suzana Krmzova, d-r Ljubica Proseva

11:00-14:00 **Tooth color assesment methods in dental practice**

Ass. d-r Julija Zarkova Atanasova-Atnasova, Ass. Prof.d-r Katerina Zlatanovska,
Ass.d-r Sandra Atanasova

14:00-16:00 **Lunch**

Workshops

16:00-18:00 **Alternative mandibular anesthesia**

Prof. d-r Cena Dimova, d-r Sonja Rogoleva

16:00-18:00 **Oral hygiene practices and tooth cleaning techniques”**

Ass.Prof. d-r Sanja Nashkova , Ass. d-r Mihajlo Petrovski,
Mr.d-r Olivera Terzieva-Petrovska, d-r Ljubica Proseva

18:30-19:30 **Poster session 1**

Chairmen: Ass. Prof. Sanja Naskova, Dr. Sonja Rogoleva, Maja Trajkova

Poster no. 1 **Don't let checkup become a matter of luck**

Autor: Martina Ginovska

Co-autor: Ana Martina Kostadinova

Mentor:d-r Ljubica Proseva

Co-mentor:Ass.Prof.d-r Sanja Nashkova

Faculty of Medical Sciences , University “Goce Delcev” – Stip

Poster no. 2	Evaluation of need for pre-prosthetic endodontic therapy Autohor: <u>Hristijan Dimovski</u> Co-author: Vane Panov Mentors: d-r Natasha Arsova, Ass.prof.d-r Natasha Longurova, d-r Verica Toneva-Stojmenova Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 3	Clinical periodontal changes during pregnancy Author: <u>Zorica Kozuharova</u> Co-author: Maja Trajkova Mentor: Mr.d-r Olivera Terzieva –Petrovska Co-mentor: Ass.d-r Mihajlo Petrovski Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 4	Initial bone loss around dental implants – CASE REPORT Author: <u>Krmzova Valentina</u> Co – author: Petrushevski Andrej Mentor: Prof. d-r Kiro Papakoca Co –mentor:d-r Krmzova Suzana Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 5	Effects of non-nutritive sucking habits on occlusion in mixed dentition Author: <u>Marinela Miladinovska</u> Mentor: Mr.Sci d-r Olivera Terzieva-Petrovska Co-mentor: Ass. d-r Mihajlo Petrovski
Poster no. 6	Efficiency of fissures filling in caries prevention Author: <u>Monika Kitanova</u> Co -autor Stefan Ilievski Mentor: d-r Sonja Rogoleva Co-mentor:d-r Verica Toneva –Stojmenova Faculty of Medical Sciences, University "Goce Delcev"- Stip
Poster no.7	Variations in cuspal morphology in upper first permanent molars among dental students Author: <u>Bojana Simevska</u> Co-Author: Elena Charakchieva Mentor: Mr.Sci d-r Olivera Terzieva –Petrovska Co-mentor:Prof.d-r Kiro Papakoca Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 8	Xerostomia and Causative Consequences Author: <u>Valerija Stojanovska</u> Co-author: Viktorija Stojanovska Mentor: d-r Sonja Rogoleva Co-mentor: d-r Darko Kocovski

Poster no. 9	Teeth hypersensitivity after restoration Autor : <u>Nenad Karov</u> Co-autor Martin Treneski Mentor: d-r Ljupka Lazarova Co-mentor: Ass. d-r Mihajlo Petrovski Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no.10	Microbiology in the oral cavity Author: Anastazija Joleva Co-author: Monika Netkova Mentor: Ass.Prof. d-r Natasha Longurova Co- mentor: Ass. Prof. d-r Katerina Zlatanovska
Poster no. 11	Presence of third molar among students from third year, dental medicine Author: <u>Andzelo Dimov</u> , Co-author: Mario Jovanov Mentor: Ass. d-r Sandra Atanasova Co- mentor: d-r LjubicaProseva Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 12	Prevalence of denture stomatitis among institutionalized elderly Author: <u>Keti Nikolova</u> Co-author: Cvetanka Srceva Menthor: Ass.Mihajlo Petrovski Co-mentor:Mr.Sci.d-r Olivera Terzieva-Petrovska Faculty of Medical Sciences , University "Goce Delcev" – Stip

20:30-00:00

Masquerade, show under masks



Third day-Saturday, 25th May 2019

Oral presentation-session

Chairmen: Ass. d-r Sandra Atanasova, Ass. d-r Julija Zarkova Atanasova, Valentina Krmzova

9:30-9:50	<p><i>Invited speaker-</i> Mr.Sci d-r Olivera Terzieva-Petrovska, Faculty of Medical Sciences, University "Goce Delcev"</p> <p>Dental Lasers- Next Generation Dentistry Technology</p>
9:50-10:00	<p>Tips for adhesive cementation of all ceramic restoraions <u>Ass.d-r Julija Zarkova Atanasova</u>, Prof. d-r Ivona Kovacevska Faculty of Medical Sciences , University "Goce Delcev" – Stip</p>
10:00-10:10	<p>Alternative solutions for treatment of partial edentulism Author: <u>Stefanija Stojanova</u> Co-author: Senad Kovacevik Mentor: Ass.Prof.d-r Katerina Zlatanovska Co-mentor: d-r Darko Kocovski Faculty of Medical Sciences, University "Goce Delcev" – Stip</p>
10:10-10:20	<p>Advantages and disadvantages of modern aesthetic materials Ceramic vs Composite Author: <u>Teodora Seneva</u> Co-author: Tamara Eftimova Mentor: Spec.dent.tech. Pavle Apostoloski Co-mentor: d-r Ljubica Prosheva Faculty of Medical Sciences , University "Goce Delcev" – Stip</p>
10:20-10:30	<p>Comparison between CAD-CAM and hot-press lithium disilicate crowns Author: <u>Vasko Hristov</u> fCo-author: Zivanka Arlamova Mentor: Spec.dent.tech. Kiril Mitevski Spec. dent.tech. Pavle Apostolovski Faculty of Medical Sciences, University "Goce Delcev" – Stip</p>
10:30-10:45	<p>Disssusion</p>

Workshops

11:00-14:00	Aesthetic follows function Ceramic vs Composite-part 1 Mr.Sci.dent.tech. Claus Jurgen, Dent.tech. Blagoj Davitkov, Spec. dent.tech. Pavle Apostoloski
11:00-14:00	Needles, suture materials and knots used in oral surgery procdures Prof. d-r Cena Dimova d-r Sonja Rogoleva, d-r Marija Miteva

14:00-16:00 Lunch

Workshops

16:00-18:00	Aesthetic follows function Ceramic vs Composite-part 2 Mr.Sci.dent.tech. Claus Jurgen, Dent. tech. Blagoj Davitkov, Spec.dent. tech Pavle Apostoloski
-------------	---

Additional program

16:00-16:15	Immediate loading in dental implantology using one-piece implants <u>d-r Tome Piperevaliev</u> PHO Denticija-Gevgelija
16:30-18:00	Forum theater „Does the faculty teaches us this way?” <u>Vladimir Karaev</u> NVO HERA

18:30-19:30	Poster session 2 Chairmen: Ass. Prof. Katerina Zlatanovska, Spec. Pavle Apostoloski, Martina Ginovska
Poster no. 1	3 Shape TRIOS- Intraoral Scanner Author: <u>Stanija Zlatanovik</u> Co-author: Dijana Davitkova Mentor: d-r Suzana Krmzova Co-mentors: Spec. dent. tehn Kiril Mitevski, Spec.dent.tehn Pavle Apostoloski Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 2	Complication of fixed dental prosthesis Author: <u>Viktorija Zlatkova</u> Co – author: Sara Trajanova Mentor: d-r Kocovski Darko Co – mentor: d-r Sonja Rogoleva Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 3	Laboratory techniques for dental veneer restoration Author: <u>Stefanija Gorgieva</u> Co-author: Martina Daruda Mentor: Ass.Prof.d-r Katerina Zlatanovska Co-mentor: Ass. Prof. d-r Natasa Longurova Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 4	Immediate loading of dental implants in 7 days Author: d-r Dubravka Angjelic Krstevska Co - authors: d-r.spec. Danilo Krstevski, d-r Katerina Spasovska, d-r Dario Krstevski <i>PZU "Stela" - Skopje</i> Menthor: Prof. d-r Dragoljub Veleski Co – menthor: Prof. d-r Cena Dimova Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 5	Acrylic bridges-advantages for everyday dental usage Autor: <u>Angela Davcevska</u> Co-autor: Marija Ristova Mentor: d-r Ljupka Lazarova Co-mentor: Mr .Sci d-r Olivera Terzieva- Petrovska
Poster no. 6	CAD/Design and types of aesthetic layering zirconia Autor: <u>Filip Stojanovski</u> Co-autors: Tanja Jovanova, Teodora Stojkova Mentor: Spec.dent.tehn Kiril Mitevski, Co-mentor: Spec.dent.tehn Pavle Aposoloski

Poster no.7	Cleaning re-usable instruments in general dental practice Author: <u>Radmila Dimitrovska</u> Co-author: Teodora Adzieva Mentor: d-r Verica Toneva
Poster no. 8	Differences in the modeling of a wax construction for faceting with composite and ceramic masses Author: <u>Emilija Malakovska</u> Co-author: Tijana Stojanovska Mentor: Spec.dent.tehn Apostoloski Pavle Co-mentor: d-r Ljubica Prosheva
Poster no. 9	Midline Diastema Closure Author: <u>Viktorija Popovska</u> Mentor: d-r Darko Kocovski Co-mentor: d-r Monika Atanasov Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no.10	Composite laminates for a perfect smile Author: <u>Verica Sajkarova</u> Co-author: Mirjana Ristovska Mentor: d-r Ljubica Prosheva Co-mentor: Ass.d-r Sandra Atanasova
Poster no. 11	Techniques for fabrication of temporary dental restorations Author: <u>Dimitar Mitev</u> Co-author: Ognen Cvetanoski Mentor : Ass.d-r Julija Zarkova Atanasova Faculty of Medical Sciences , University "Goce Delcev" – Stip
Poster no. 12	Prevalence of temporomandibular disorders among dental students in University GoceDelcev - Stip Author: <u>Senad Kovacevik</u> Co-author : Stefaniya Stojanova Mentor: Ass. Prof. d-r Katerina Zlatanovska Co-mentor: Ass. d-r Julija Zarkova Atanasova Faculty of Medical Sciences , University "Goce Delcev" – Stip

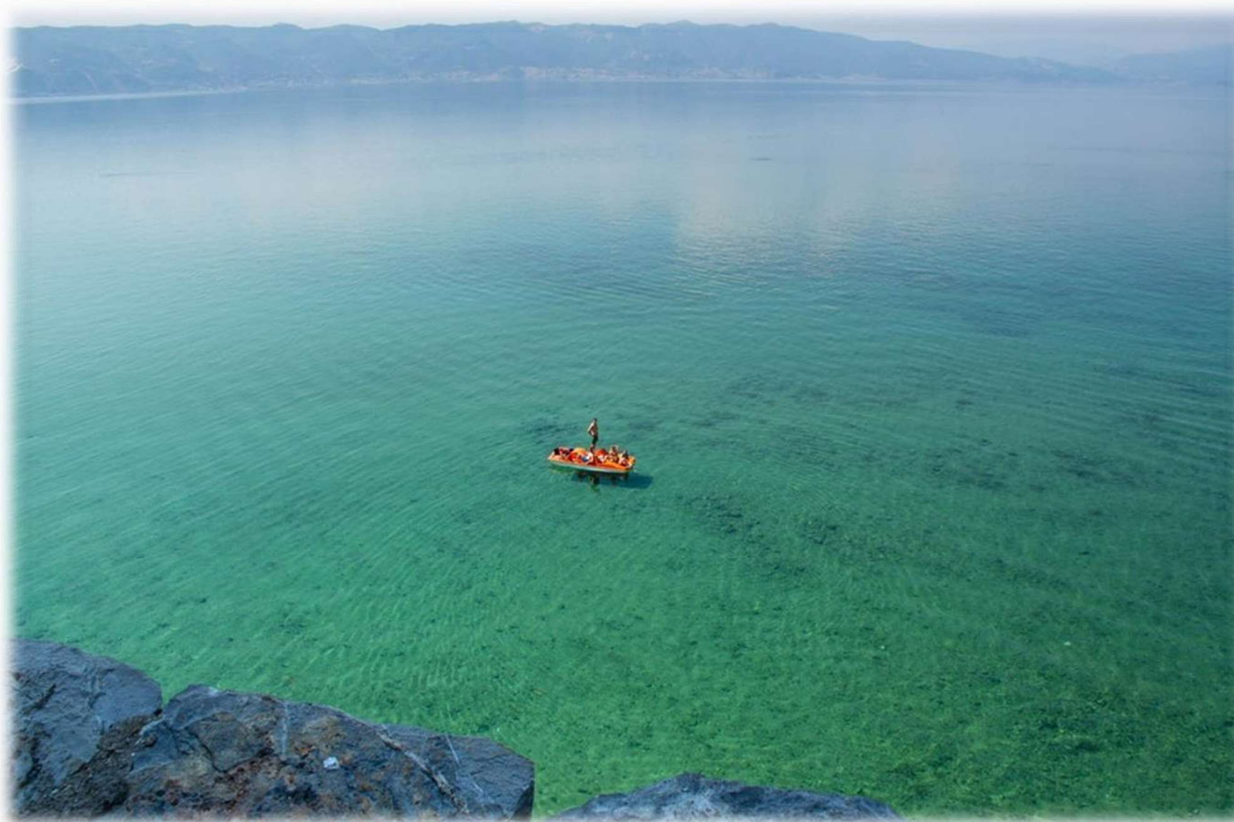
20:30-00:00

GALA DINNER, CLOSING CEREMONY

Fourth day-Sunday, 26th May 2019

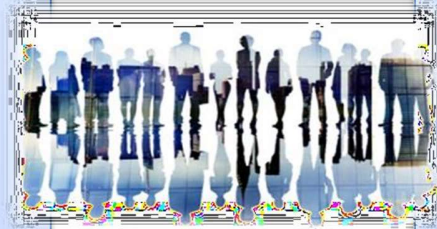
11:00-15:00

BOAT CRUISING



MEMBERS OF THE ORGANIZATIONAL BOARD:

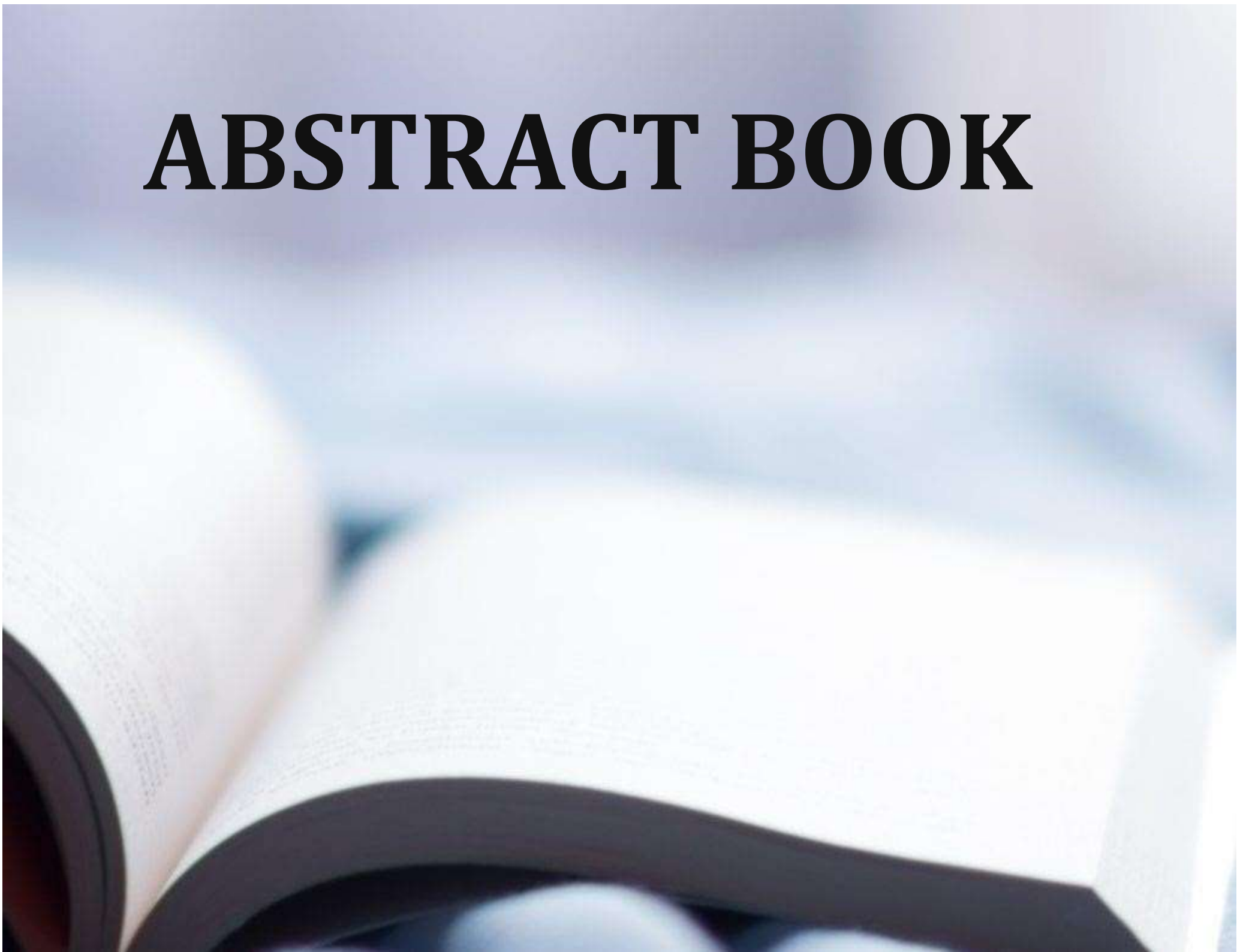
- Andon Stojkov-president,
- Hristijan Dimovski,
- Aleksandar Ristovski,
- Ognen Cvetanoski,
- Dimitar Mitev,
- Spase Sulev,
- Martin Treneski,
- Teodora Seneva
- Tamara Eftimova,
- Valentina Krmzova,
- Mirjana Ristovska,
- Maja Trajkova,
- Nina Dimevska,
- Zorica Kozuharova,
- Verica Shajkarova,
- Petar Joleski,
- Stefan Ilievski,
- Leon Angelov,
- Kosta Zamanovski



MEMBERS OF THE SCIENTIFIC BOARD:

Ass.d-r.Mihajlo Petrovski – president
Prof.d-r Ivona Kovacevska,
Prof.d-r Cena Dimova,
Prof.d-r Kiro Papakoca,
Ass.Prof.d-r.Sofija Carceva-Salja,
Ass.Prof.d-r Katerina Zlatanovska
Ass.Prof.d-r Sanja Naskova,
Ass.Prof.d-r Natasa Longurova,
Ass.d-r Sandra Atanasova,
Ass.d-r Julija Zarkova Atanasova,
Mr.Sci d-r Olivera Terzieva-Petrovska,
d-r Sonja Rogoleva,
d-r Ljupka Lazarova,
d-r Verica Toneva-Stojmenova,
d-r Darko Kocovski,
d-r Ljubica Proseva,
d-r Suzana Krmzova,
d-r Natasa Arsova,
d-r Marija Miteva,
Spec.dent.tech. Kiril Mitevski,
Spec.dent.tech. Pavle Apostoloski

ABSTRACT BOOK





**INVITED
SPEAKER
LECTURES**

Invited speaker lecture



Fake Science, Fake Journals, Fake Scientists

Prof. d-r. Rubin Gulaboski

Faculty of Medical Sciences, Goce Delcev University, Stip

Abstract

As the number of scientists in the world grows permanently, we witness a huge number of examples of scientific misconduct especially in the last 20 years. In addition, plenty of the fake or even non-existing “scientific results” are published in predatory “scientific journals” that usually charge the authors significant amount of money for publishing their “works” in these fake journals. Scientific fraud exists to such an extent that in one recent study it has been concluded that “science bears little resemblance to its conventional portrait”. In this lecture we focus on some specific and fanny misconducts in publishing, while presenting several examples of most predatory journals and some incredible “science” published there.

Key words

Fake journals, fake science, fake scientists, predatory journals

Invited speaker lecture



The importance of evidence-based dentistry in everyday clinical practice

Prof. d-r Cena Dimova

Faculty of Medical Sciences, Goce Delcev University, Stip

Abstract

The capacity of contemporary scientific literature directed at dental practice sometimes creates problems and questions that the dentist needs to find an answer. Often, contradictory information are placed in terms of which technique to apply and which one is useless.

The implementation of contemporary scientific dental advancements are always a guide in the policies and plans of the dental industry, which will then suggest good practice which is in line with the ultimate goal: improving the solutions for better oral health and at the same time, ensuring good access to a favorable dentist protection.

Most authors define Evidence Based Dentistry (EBD) as "integrating individual clinical expertise with best available external clinical evidence from targeted systematic research". At the same time, the EBD provides guidance to help dentists to make an intelligent decision. In short, evidence-based dentistry is an attempt to ensure the patient's right to receive an appropriate procedure, for the right condition at the right time.

It is generally accepted that the doctor or dentist with a long-term experience achieves better quality of health care. However, recent studies have shown that there is in fact an inverse relationship between the number of years of practice and the quality of health care provided.

Evidence-based dentistry is a process that reconstructs the way we think about clinical problems. At the heart of the definition of a WBD is the patient, which includes a reasonable integration of systematic assessments of clinically relevant scientific evidence. The lecture will describe together, the advantages and problems of introducing an evidence- based approach to dentistry from the aspect of everyday oral surgical procedures.

Key words

dentistry, dental education, evidence-based dentistry

Invited speaker lecture



Prosthetics solution for different type of edentation with dental implants

Prof. d-r Kiro Papakoca

Faculty of medical sciences, University "Goce Delcev" – Shtip

Abstract

Oral implantology is part of the modern concept of oral rehabilitation treatment, through its qualitative application, we are bound to meet both the functional and the physiological needs of the patients.

The anatomic structures e.g. maxillary sinus and mental foramen often dictates that treatment planning will need to include complex grafting procedures or inclined placement of implants. When teeth present with prior disease requiring removal and implant placement, the treatment strategy incorporates correct implant placement as well as proper restorative contour management to compensate for the soft and hard tissue recession defect. The compromised position of implants usually requires the use of complicated, expensive and space consuming angle correction abutments.

In this presentation, we will try to systematize the most used prosthetics solution we use at the moment, with which we try to minimize the appearance of a complication. All of these cannot be imagined without using biomaterials - bone substitutes, membranes, etc. Here we will discuss the most suitable biomaterials with which we repair the bone defects but also reduce the subsequent costs.

Key words

implants, prosthetics solution, edentation, biomaterial

Invited speaker lecture



Dental Lasers- Next Generation Dentistry Technology

D-r. Olivera Terzieva-Petrovska, mr. sci.

Faculty of medical sciences, University “Goce Delcev”- Shtip

Abstract

In the last two decades, lasers became a vital part of many dental offices and a solution to many dental and oral diseases. Dental lasers are very useful tool, helping general practitioners and dental specialists for both, soft and hard tissues. The main goal of this presentation is describing how the laser beam is formed, its effects on the target tissues, and the advantages of using the laser in everyday dental practice. “Laser” is an acronym for light amplification by stimulated emission of radiation. A laser beam is created when electrons in atoms absorb energy from an electrical source and become “excited.” The excited electrons move from a lower-energy orbit to a higher-energy orbit around the atom’s nucleus. When they return to their normal state, the electrons emit photons. It must be noted that lasers have not yet succeeded in replacing conventional instruments and techniques, the numerous advantages make it more likely to be used more often. Laser interventions provide numerous benefits for patients such as: reduction in post-operative complications, shortening of postoperative complains, less trauma during interventions, and in most cases, there is no need to use anesthetic agents. The numerous advantages of using laser light can hardly be ignored, such as precision, simple use and greater success of therapy with respect to conventional therapy procedures. However, the complete knowledge of this therapeutic tool is imperative in order to avoid unwanted complications and to obtain fully the desired benefits.

Key words

Lasers in dentistry, dental lasers, laser beam, laser physics



ORAL PRESENTATIONS

Changes of Root Surface in the Periodontal disease

Mihajlo Petrovski, Ana Minovska

Faculty of medical sciences, Goce Delcev University, Stip

Abstract

Periodontal disease is a bacterial-induced inflammatory disease. It is caused dominant by bacteria that connect to the surface of the tooth and progress in the biofilm environment. They are responsible for the invasion of periodontal tissue, resulting in a variety of host-bacterial interactions that are clinically manifested as periodontal disease. The purpose of this presentation is to review the most common changes that occur on the cement of the tooth roots during periodontal disease. Cement is a highly mineralized connective tissue that covers the tooth root and sometimes a part of the crown. With the deepening of the periodontal pocket, the destruction of the ends of the collagen fibers in the cement occurs. Cement of the tooth root because of periodontal disease becomes exposed to the contents of the periodontal pocket or on the oral environment. Numerous changes occur on cement as a consequence of the periodontal disease. One of the most challenging aspects of periodontal therapy is the choice of a predictable approach for modifying the root surface, primarily because biofilm impairs regeneration possibilities and needs to be removed in-toto. The resulting roughness after mechanical or ultrasonic treatment of the periodontal pockets can affect bacterial colonization and fixation of the fibroblasts. Therefore, the removal of dental deposits and the accumulated mass of dental plaque from the surface of the tooth root is one of the most important interventions for the treatment of periodontal diseases.

Key words periodontal therapy, dental cementum, root cement, root surface changes.

Contemporary recommendations for the prophylaxis of infective endocarditis

Author: **Monika Siljanovska**

Mentor: Gordana Apostolova

Faculty of dentistry, University "Ss. Cyril and Methodius" - Skopje

Abstract

Aim: The aim of this study is to present the revised world protocols for the conditions associated with high risk of occurrence of endocarditis and the dental interventions for which prophylaxis is recommended, which will reduce morbidity and mortality, as well as resistance caused by improper use of antibiotics.

Materials and methods: In order to achieve this aim, we analyzed 16 papers from the Pub med database and compared world protocols from 2015-2017 that are used in the Republic of Macedonia.

Results: According to the results, antibiotic prophylaxis is performed in patients with prosthetic heart valves, a past episode of infective endocarditis, congenital heart disease, and patients with cardiac grafts subject to a dental intervention involving the gingival tissue, periapical area of the teeth or oral mucosa. Antibiotics of choice are ampicillin / amoxicillin or clindamycin in patients with penicillin allergy.

Conclusion: High morbidity and mortality from infective endocarditis is the reason of frequent administration of high-dose intravenous antibiotic with minimal side effects. However, the occurrence of infective endocarditis from dental intervention is very rare, indicating inadequate frequent use of antibiotics with subsequent resistance to it.

Key words

infective endocarditis, antibiotic prophylaxis, dental intervention, antibiotic resistance

Connection between oral and systemic diseases

Author: **Martin Treneski**

Co-Author: Popovska Viktorija

Mentor: Natasha Longurova

Co-mentor: Ivona Kovachevska

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

The connection between oral and systemic diseases is well known for a very long time.

Focal infection is a disease that is caused by spreading of the microorganisms from one infected area, to any organ or organic system.

Objective: The aims of this study were to discover and explore the mechanisms of spreading the focal infections and to find out what systemic diseases can focal infections cause.

Materials and methods: For this study to be completed, a research was made about some dental and medical scientific studies about consecutive diseases that were connected to oral focal infections.

Results: The results showed that in the oral cavity the manifestations caused by the systemic diseases are showing very early.

From the focal infections, the organs that are mostly affected are cardiovascular system, skin, respiratory system and craniofacial system.

Conclusion: There are many different opinions and theories about the correct pathophysiological mechanism of action, but very rarely someone deny the theory that infected areas can cause systemic diseases. And for that our conclusion is that we should raise awareness of the population for early discovery of focal infection, so that many systemic diseases can be prevented and stopped.

Key words

Focal infections, consecutive diseases, bacteremia.

The influence of oral hygienic habits on the occurrence of halitosis in students of dental medicine

Author: **Stefan Ilievski** Co-author : Spase Sulev

Mentor: Mihajlo Petrovski Co-mentor: Olivera Terzieva-Petrovska

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

Introduction: Halitosis affects a large part from the population and may cause a significant social or psychological handicap, especially among younger individuals.

Aim: The main aim of this research was to determine the prevalence of oral hygiene practices and halitosis among undergraduate students from Goce Delcev University-Stip .

Material and method: A questionnaire was used to accomplish the set goal, which assessed the presence of halitosis and factors that may be the reason for its occurrence. The research has involved 100 students from the Goce Delcev University, of which 50 students from the Faculty of Medical Sciences, Dental Medicine and 50 students from other faculties. The present halitosis was detected using the Brennings' test

Results: A lower percentage of halitosis was registered in students of dentistry compared to the students from other faculties. From 100 students, 93 completed the questionnaire. Self-perceived halitosis was reported from 44.8% males and 47.3% females. The difference between males and females in reporting on self-perception of halitosis is statistically significant. A large percentage of students felt the unpleasant smell after waking up. Halitosis is present in a lower percentage of students using mouthwash, a tongue cleaner compared to students who have gingival bleeding, plaques of the tongue and carious teeth.

Conclusion: Regular use of mouthwash, tongue cleaners and additional supplements for oral hygiene are very useful in preventing the unpleasant smell. Students should be encouraged to have regular dental examinations and tips for maintaining proper oral hygiene.

Key words

halitosis, bleeding, caries, hygiene.

The fractures of the zygomatic bone-diagnosis, classifications, therapy

Author: **Ivan Rakić**

Mentor: Dragan Krasić

Department of Maxillofacial Surgery Clinic for Dentistry Niš, Faculty of Medicine University of Niš

Abstract

The fractures of the zygomatic bone are formed by the direct effect of a strong force directed at her body or attachments.

The localization of this bone significantly affects the frequency of fractures of this bone.

The aim of the research paper was to study the fractures of the zygomatic bone, through their diagnosis, classification, methods of treatment of these fractures, and the presence of certain characteristic complications for this type of fracture.

The research included patients who were observed and surgically treated in the Maxillofacial Surgery Service of the Clinic for Dentistry in Niš from 2013 to the end of 2017 with diagnosis of fracture of the zygomatic bone. Data that included sex, age and complications of fractures zygomatic bone were analyzed by a descriptive statistic and χ^2 test.

Out of 221 patients 180 male and 41 females, the fracture of the body of the zygomatic bone had 112 patients, a fracture of the zygomatic arch 43, the break of the orbital floor had 66 patients. Preoperatively it was present: Diplopia 19, enophthalmus 28 and paraesthesia in the distribution area n. Infraorbitalis 169 patients. Postoperatively diplopia was present in 2 patients, enophthalmus was not present, and paraesthesia in 67 patients were present.

Bearing in mind the role of the zygomatic bone to protect the orbital and endocrine contents as well as its aesthetic role, the importance of maxillofacial surgery is great in correct diagnosis and therapy of its fractures.

3D movies, 3D clones, and now dentistry has gone digital too

Author: **Ana Martina Kostadinova** Co-author :Martina Ginovska

Mentor: Pavle Apostoloski

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

Introduction: The world is changing faster than ever. Fueled by rapid technological advances, one of the most dynamic fields is 3D printing and CAD/CAM technology. Systems are leading in this exciting new 3D printing innovation, for dental technology and dental care industries.

Aim or purpose: Our goal is to evaluate the positive and negative sides of using Cad Cam or 3D printing, and to present you how all handmade dentistry products have been replaced with the use of Cad Cam and 3D printing technology.

Material and methods: Various contemporary research articles form relevant databases were used to obtain the results, such as PubMed.

Results: According to most studies it's discovered that dental industry has been revolutionized by 3D printing technology. 3D printing has eliminated the need to make dental models by hand, and intraoral scanners have removed the need for taking physical imprints entirely.

Conclusion: From our research we concluded that, due to the use of 3D printing technology which provides more cost-effective and timely solutions for restorative dentistry, conventional dental labs will become less popular. Need a tooth, why not print one?

Key words

3D printing, Cad Cam, intraoral scanners, physical imprints

Orthodontic treatment in patients with diabetes mellitus

Author: **Slavica Koteva** Co- author Teodora Adzieva

Mentor: Sandra Atanasova Co- mentor: Ljubica Prosheva

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

Diabetes mellitus is a systematic disease and has a major negative impact on different organs and systems, including oral cavity and teeth. Diabetes mellitus is a common and a serious public health problem. There are 3 types of diabetes: type 1 also known as juvenile or insulin dependent diabetes, type 2 or non-insulin-dependent diabetes mellitus and type 3 or gestational diabetes. Dentists often are faced with diabetic patients who are demanding orthodontic treatment.

The main aim of this study was to evaluate the oral manifestation in orthodontic patients. Oral and dental manifestation of diabetes mellitus are: mouth dryness (xerostomia), burning mouth syndrome, dental caries, periodontitis and gingivitis, ketone breath in poorly controlled patients, teeth disposition and misalignment, brittle teeth, recurrent oral infections (e.g. oral candida, mouth ulcerations), altered taste sensation and also there is delayed healing of mucous membranes.

Treatment considerations in patients with diabetes mellitus are: consideration before deciding orthodontic treatment, during the process of orthodontic intervention and diabetic emergencies during orthodontic treatment. Diabetic patients often seek for orthodontic treatment and dentists should be aware about the importance of this condition to prevent all possible complications. It is necessary for dentists to have a basic and solid knowledge about diabetes diagnosis, management, dental consequences, and the considerations to be taken during orthodontic treatment. Diabetes is not a contraindication to orthodontic treatment.

Key words

dentists, diabetes mellitus, orthodontic treatment, patients

Pattern of dental malocclusions in Dental Medicine students

Author: **Milena Crngarova**

Co-author: Tanja Stefanova

Mentor: Sandra Atanasova Co-mentor: Sanja Nashkova

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

Introduction: A malocclusion is a misalignment or incorrect relation between the teeth of the two dental arches. It is considered one of the most common dental problems together with dental caries, gingival disease and dental fluorosis. Classification according to Angle is based on irregularities of teeth and jaws in anteroposterior or sagittal direction. There are three classes of malocclusion: Class I (neutroocclusion), Class II (distoocclusion) and Class III (mesioocclusion). The purpose of this study was to analyze and to assess the status of occlusion, the molar and the canine relationship of the permanent dentition.

Aim: To assess the occurrence of dental malocclusion in dental medicine students.

Material and methods: The study included 22 students (11 female and 11 male) aged 22 to 31 of Dental Medicine from Goce Delchev University. An intraoral examination was performed. The students who were examined were informed that they would be included in our research.

Results: From the total number of students 63.6% have Angle's Class I malocclusion, 22.7% have the presence of Angle's Class II molar relationship (Class II Division 1 or Class II Division 2) and 13.6 % have the presence of Angle's Class I molar relationship and Angle's Class II canine relationship (unilateral or bilateral). Frequency of crowding was observed in 77.3%, diastema was present in 4.5%, and posterior crossbite was 9.1%. Anterior crossbite was not detected.

Conclusion: The most common malocclusion among students is Angle's Class I with normal canine and molar relationship. This study gives us valuable information on identifying occlusal problems, their incidence and the need for orthodontic treatment.

Key words

malocclusion, students, teeth.

A clinical therapy for treatment of Peri – Implantitis

Author: **Andrej Petrushevski** Co – author: Krmzova Valentina

Mentor: Kiro Papakoca Co – Mentor: Krmzova Suzana

Faculty of medical sciences, Goce Delcev University-Stip

Abstract

Implant-based treatment is a growing part in the modern dentistry. A dental implant is considered to be a failure if it shows peri-implant bone loss greater than 1.0 mm in the first year and 0.2 mm more later. It causes an inflammatory process in soft tissues and bone loss and can result loss of the implant itself.

In this research 58 years old Male patient came to our clinic for treatment of a failing implant at the mandibular right first molar. Probing depths more than 10 mm circumferentially were noted, with bleeding and purulence present. After giving local anesthesia, an intrasulcular incision was made from the first molar area to the canine. A full thickness muco-periosteal flap was elevated, and the granulation tissue surrounding the implant was removed. After that the exposed contaminated implant surface was debrided with a piezoelectric scaler with water irrigation and returned to its place. Then we use platelet-rich plasma gel, before applying grafting and using the PRP membrane over the graft.

After one year of follow up, periapical radiography showed that bone around the implant is filled. Probing depths were reduced to 3 mm or less circumferentially, and the absence of purulence and bleeding was observed.

Conclusion: Comparing the results of radiological measurement and the depth of the osseous pockets, radio densitometry of the bone structures and the use of calcium hydroxyapatite, this procedure is very effective in peri-implantitis therapy.

Key words

Peri-implantitis, implantology, therapy, dental implants

Application of dermal fillers doctor vs. cosmetic technician

Author: **Mirjana Ristovska**

Co-author: Verica Shajkarova

Mentor: Ljubica Proseva

Co-mentor: Sandra Atanasova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Dermal fillers, commonly known as cosmetic fillers are injected in soft tissue of the skin to help filling in facial wrinkles, and also achieving smoother skin appeal. They can be used for many aesthetic reconstructions, such as filling in fine lines and superficial wrinkles, medium to deep folds, smoothing out creased areas, restoring the volume loss in the cheek area or plumping thin lips. Nowadays cosmetic technicians use fillers constantly despite not knowing the rules for perfect facial aesthetics and the lack of education for facial anatomy such as anatomy of muscles and nerves. Their only attendance is at courses for certificates that are untrustworthy and the effects of this kind of education causes damage to the patients. When placing dermal fillers by the cosmetic technician, frequent adverse effects such as tissue necrosis, artificial appearance or a possibility of many infections may occur.

Doctors, dentists and oral surgeons learn how to safely administer dermal injections as part of their medical training. Medical professionals are taught how to use needles and cannulas safely, and they are also taught how to deal with problems that may arise from allergic reactions, infection, or an error by the injector.

Would you feel completely comfortable having a tooth extracted by a beauty therapist who learned that one procedure and observed dentists performing it, but had no other medical training? Or would you prefer a qualified dentist to do it?

Key words

Dermal fillers, doctors, cosmeticians

Red and white aesthetics with all ceramic crowns and bridges

Author: **Danilo Krstevski** Co-authors: Dubravka Angjelic-Krstevska, Katerina Spasovska

PZU "Stela" - Skopje

Mentor: Dragoljub Veleski Co – mentor: Cena Dimova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Contemporary living imposes the need of aesthetics restorations, especially of the frontal teeth. Here, we are not talking only about nice teeth, but also a stunning smile. The clinical decision to reconstruct the smile is based on extensive analysis and includes protocol by the following order: clinical examination; making diagnostic casts (which are necessary in the further phases, like reminder of the starting position) x-ray images which are used to evaluate the condition of the teeth; photos of the patient's face in profile and front and photos of the starting occlusion.

On the photos at first the marginal gum edges are drawn. The next step is to elevate their level to the wanted height. We need to be objective at this point, so we dislocate the gum edges to the imagined line to get the wanted height and length for the all ceramic frontal teeth. The purpose of this simulated gingivectomy is to obtain equal shape and size of the frontal teeth and harmonic arches in the cervical part of the teeth.

When the gypsum cast is ready, we are starting the wax modeling. With the "wax up" we envision teeth future shape, length, width and convexity. Later we prepare the teeth and make the temporary bridges with the "copy" method.

After one month, when the epithelization is finished, we take final impression for the permanent all ceramic constructions. With these aesthetic procedures, patient self-confidence can be achieved. Extremely necessary is to balance the will of the patient and the real possibilities for aesthetic intervention.

Key words

Aesthetics, casts, gingivectomy, smile

Aesthetic treatment of first upper premolar- a case report

Author: **Maja Trajkova**

Co-author: Nina Dimevska

Mentor: Verica Toneva Stojmenova

Co-Mentor: Ivona Kovacevska

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: As students of dental medicine, we are of great efficiency the practical exercises of different character that prepare us as future dentists to teach and prepare to know how to build a patient-doctor relationship and then help with our knowledge.

Aim: Our goal in this presentation is to present a clinical case that me and my colleague, with the help of our assistant, worked on practical exercises in the Clinical Endodontics 1.

We have worked with a patient with recurrent caries revealed on endodontically treated tooth (24) with definite filling. From the removal of restoration, detection of recurrent caries, temporary closure and making a x – ray shoot, then removing the changed tooth tissue by leaving only the root part of the tooth, cementing a metal peg in the orifice of the tooth up to making a crown of the tooth.

After the treatment, we got a tooth with a definite coronary restoration, a crown made it was successfully included and adapted to the function, and of course with a highly satisfying aesthetic moment and most importantly a satisfied patient.

Conclusion: From this presentation we can say that we got a satisfied patient with a functional tooth, high aesthetics and of course a great experience for us.

Key words

recurrent caries, cementing, metal peg, retreatment.

Tips for adhesive cementation of all ceramic restorations

Julija Zarkova Atanasova, Ivona Kovacevska

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

All-ceramic restorations are highly esthetical and biocompatible dental constructions with perfect optical characteristics. The important factor for their success is the selection of the correct type of cement and the performance of cementation procedure. The color of the final restoration and the fitting must be verified before cementation using try-in paste in order to achieve perfect shade matching and blending effect with the remaining natural teeth. Appropriate isolation of surroundings is necessary to protect cement sticking on other surfaces with plumber's tape. Using a rubber dam or cotton rolls together with suction can be used for drying the work field and prevention of saliva contamination. The bonding side of the restoration should be clean and prepared with hydrofluoric acid. Total-etch technique for adhesive cementation is the best choice. According to the polymerization resin cements have three types: self-cure, light- cure and dual-cure. The composition, thickness, opacity, and shade of the ceramic may weaken the light from the curing unit used to polymerize the resin cement under the ceramic restoration. All the excess cement can be removed before or after polymerization. Excess self-cure cement is cleaned immediately with brushes for minimal clean-up after setting. The dual-cure and light cement is best removed with pre-polymerization technique of 3 seconds polymerization. The residual totally cured cement is best to be removed with micro periodontal curette or blade. Many factors influence cementing but careful monitoring of each individually can guarantee success of the therapy.

Key words

luting cements, polymerisation, try-in paste.

Alternative solutions for treatment of partial edentulism

Author: **Stefanija Stojanova**

Co-author: Senad Kovacevik

Mentor: Katerina Zlatanovska Co-menthor: Darko Kocovski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Tooth loss caused by chronic caries, endodontic complications, periodontal disease, trauma, or certain congenital anomalies, result in partial edentulism and reduced masticatory efficiency and esthetics. In such cases, prosthetic rehabilitation that will recover the lost teeth is necessary in order to restore function (mastication and phonetics) and esthetics. A broad range of prosthetic treatment options are available for replacing missing teeth.

We present some cases of patients with extended maxillary and mandibular edentulous areas (Kennedy I and II/2), in whom a complex prosthetic treatment was performed in private dental office "Pzu D-r Boris Stojanov"-

Radovis

There are many solutions for treatment of partially edentulous patients. Though we placed great emphasis on implants to replace missing teeth, complex partial dentures are still the solution of choice that provides restoration of lost functions. Posterior extended edentulous areas can be successfully restored by removable dentures articulated to fixed prostheses for improved function, aesthetics, self-confidence and life quality. The use of telescopic overdenture is an alternative option that provides excellent retention and stabilization with a splinting action, also achieving long-term restoration of a partially edentulous jaw.

Conclusion: The alternative of treatment in partially edentulous patients is mostly established by the patient's expectations and needs, according to his financial possibilities, as well as depending on the general oral health status and prognosis of the remaining teeth. Rehabilitation of partial edentulism offers a wide range of modalities, so the clinician must consider all the factors in order to offer the best therapy that would satisfy the patient's requirements.

Key words

complex partial dentures, partial edentulism, telescopic overdenture, treatment.

Advantages and disadvantages of modern aesthetic materials Ceramic vs Composite

Author: **Teodora Seneva** Co-author: Tamara Eftimova Mentor:

Pavle Apostoloski Co-mentor: Ljubica Prosheva

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: In modern dentistry, the use of aesthetic materials, such as ceramics and composites, is more commonly used to obtain aesthetic constructions. These materials are characterized by their own advantages and disadvantages, which in turn is a challenge in everyday dental and prosthetics practice.

Goal: Our goal is to evaluate the modern materials for obtaining aesthetic constructions and their advantages and disadvantages to be used in the direction of their implementation, according to appropriate indications.

Materials and methods: In order to fulfill the set goals, a proper analysis of contemporary dental and dental prosthetics literature was made. The data was also obtained after a review of scientific databases. Also, guidelines for the use of these materials have been used as a source of literature.

Results: Ceramics and composites, as leading materials in aesthetic dentistry, are used for: correction of shape and size, replacement of lost teeth, correction of irregular teeth position, masking the discoloration, through the setting of various fixed prosthetic constructions. The advantages and disadvantages of these materials are considered in order of their proper application.

Conclusion: In order to satisfy the functional and aesthetic moment, the individually adapted application of these materials is of great importance. Knowing their characteristics and proper implementation, is in addition to highlighting positives, which directly affects the minimization of negative features.

Key words

ceramic, composite, aesthetic, prosthetics

Comparison between CAD-CAM and hot-press lithium disilicate crowns.

Author: **Vasko Hristov** Co-Autor: Zivanka Arlamova

Mentor: Kiril Mitevski Co-mentor: Pavle Apostoloski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Hot-pressing and computer-aided design and computer-aided manufacturing (CAD-CAM) are major techniques for the fabrication of lithium disilicate crowns. They exhibit different accuracies regarding marginal fit, an important factor in restoration survival. However, studies comparing the marginal fit of different fabrication methods are lacking.

Purpose: The purpose of this in vitro study was to compare the marginal discrepancy (MD) and absolute marginal discrepancy (AMD) of lithium disilicate crowns produced by the hot-press and CAD-CAM techniques.

Material and methods: Thirty typodont teeth were divided into 2 groups. Fifteen teeth were scanned with the CEREC Omnicam intraoral scanner, and crowns were fabricated with the CEREC MC XL chairside CAD-CAM milling unit from IPS e.max CAD blocks. Fifteen typodont teeth were sent to a dental laboratory, and lithium disilicate crowns were fabricated from IPS e.max press ingots using the hot-press technique. The 30 crowns were cemented and then sectioned with a precision saw. The MD and AMD were measured for each crown with a light microscope. One-way ANOVA was conducted to analyze significant differences in crown marginal fit between the fabrication systems ($\alpha=.05$).

Results: For the CAD-CAM technique, the mean values of the AMD measurements were 115 μm , and for the hot-press technique, 130 μm . The MD measurements were 87 μm for the CAD-CAM technique and 90 μm for the hot-press technique.

Conclusions: No significant differences were found between the fabrication methods tested. Both the CAD-CAM and hot-press techniques for producing monolithic lithium disilicate crowns produced MD values of less than 120 μm , within the clinically acceptable range.

Key words

lithium disilicate crowns ,CAD-CAM techniques,CEREC Omnicam intraoral scanner

Immediate loading in dental implantology using one-piece implants

Tome Piperevaliev

PHO Denticija-Gevgelija

Abstract

Scientific flows in dental implantology, through substantial understanding of process of osseointegration, undoubtedly lead to change in the already established contemporary methods of implanting and loading in dental implantology.

The introduction of immediate loading in implantology allows faster replacement of the previously lost natural teeth. This also means faster satisfaction of the patient's requirements from a functional and aesthetic aspect. Through the using of one-piece implants, this procedure became simpler. But, like any other procedure in implantology, the immediate loading also requires the creation of appropriate conditions for application. Success will be achieved only through appropriate planning, good patient preparation and strict adherence to the indications for this procedure.

With this presentation, we will get to know in details, what an immediate loading actually means, and we will also talk about the using of one-piece implants and flapless implantation.



POSTER PRESENTATIONS

Don't let checkup become a matter of luck

Author: **Martina Ginovska**

Co-author: Ana Martina Kostadinova

Mentor: Ljubica Proseva

Co-mentor: Sanja Nashkova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: A check-up, which involves an examination of teeth, gums and full oral cavity, will prevent minor problems from becoming major ones. Leaving problems untreated usually leads to pain, tooth loss, so it's best to deal with problems early, or if possible, prevent them.

Comfort during dental therapy is the most important thing that patients need to stay motivated for regular dental examinations. Patient - dentist relationship should be based on trust and good collaboration.

Several selected journal articles from most relevant date based were used to collect information about the importance of this issue.

Results: According to the researches it has been proven that patients avoid dental visits because of dental anxiety, fear of instruments, bad experiences and memories, lack of free time.

Conclusion: Deformities in the oral environment, even the smallest ones, can be easily identified and treated, if the visit to the dentist is regular and on time, with the possibility of pain decreasing and preserving oral health. If you're lucky, all you might need is a filling. If you're unlucky you might need anything from a dental crown to root canal therapy. And if you're really unlucky the infection will be so bad extraction may be required.

Key words

check-up, prevent, confidence, anxiety

Evaluation of need for pre-prosthetic endodontic therapy

Author: Hristijan Dimovski

Co-author: Vane Panov

Mentors: Natasha Arsova, Natasha Longurova, Verica Toneva-Stojmenova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Background: Pre-prosthetic endodontic adequate preparation have great influence of the longevity of the prosthetic devices. **Aim:** The main aim of this study was to evaluate the need for pre-partial prosthetic endodontic therapy.

Material and method: There were made clinical examination of total number of 44 patients, both sexes included (n=29 male, n=15 female), in the period from 15 February to 1 May 2019. Total 260 teeth were examined with the following test: vertical and horizontal percussion and thermal test of cold. The results were statistically evaluated.

Results: 11.15% from the examined teeth were positive on vertical percussion, 2.69% were positive on horizontal percussion, and 3.84% were positive on cold. The remaining 82.2 % were negative on this tests.

Conclusion: For successful prosthetic rehabilitation, the pre-prosthetic preparation of teeth often is needed, in which the endodontic therapy must not be excluded.

Key words

pre-prosthetic preparation, endodontics, prosthetics

Clinical periodontal changes during pregnancy

Author name: **Zorica Kozuharova** Co-Author name: Maja Trajkova

Mentor: Olivera Terzieva –Petrovska Co-Mentor: Mihajlo Petrovski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Background and aim: There are numerous literature data indicating the impact of pregnancy on the health of the periodontal tissues. Pregnancy causes numerous changes that predominantly affect the gingiva but also the remaining periodontal tissues. Hence, the main goal of this radiation has emerged - to determine the most common periodontal changes during pregnancy.

Material and method: twenty generally healthy, non-smoking women at first and second trimester of their pregnancy were examined. Periodontal examination was performed on each of the examinees. At each visit, plaque index (OHI-S), Gingival index (Silness and Loe), Ramfjord Periodontal index and (RPI) and clinical attachment loss (CAL) were measured from six sites per tooth.

Results: Pregnant women showed poor oral hygiene with the mean score as 2.45. Gingival index showed mild-to-severe gingivitis in pregnant women (mean value was 2.11). Almost all women said they brushed their teeth at least twice a day. Based on the PDI, 24% were diagnosed with gingivitis and 49% with periodontitis. According to the CAL measurement, 47% from the subjects had pathological pockets in the periodontium.

Conclusion: Starting from the fact that pregnant women have poor periodontal health, oral health education must be integral part of antenatal care. The main goal is to create awareness about the importance of prevention of periodontal disease. The increased awareness would also improve the mothers' dental care behavior.

Key words

gingival changes; oral hygiene; periodontal diseases; pregnant women

Initial bone loss around dental implants – CASE REPORT

Author: **Valentina Krmzova**

Co – author: Andrej Petrushevski

Mentor: Kiro Papakoca

Co – Mentor: Suzana Krmzova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

The main aim of this study was to present what can happen after setting the implant, caused by bone loss, followed by losing the implant's stability.

Case report- 53 years old female patient with partial toothless on the both jaws come into the office for reconstruction of her teeth. After adequate diagnosis and planning three dental implants were inserted, which were appropriate and according to the requirements. After a certain time when she came to control check-up in dental clinic Dent – Estet, Shtip.

After the x – rays, a resorption of the bon was noted and the implants must be extracted, making bone augmentation within osteoconductive bone graft and making another prosthetic – implants solution.

Conclusion: We concluded that such are: infectious process, excessive loading conditions, the location, shape and size of the implant-abutment microgap and microbial contamination and biologic width, geometry and implant surface roughness can influence on the longevity of the dental implants.

Key words

Implantology, dental implants, bone loss, initial bone loss

Effects of non-nutritive sucking habits on occlusion in mixed dentition

Author: **Marinela Miladinovska**

Mentor: Olivera Terzieva-Petrovska

Co-Mentor: Mihajlo Petrovski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Background: Non-nutritive sucking habits contribute to malocclusion presence in the mixed dentition. The purpose of this study was to assess the relationship between certain occlusal changes in the mixed dentition and non-nutritive sucking behaviors.

Material and methods: Data were collected by self-reported questionnaire. Dental examinations were conducted on 103 children with mixed dentition. A clinical evaluation of dental arches included classification of molar relationship (Angle classification), presence or absence of cross bite and open bite. Also, in 64 patients adequate study models were obtained. Study models were hand articulated using wax bites, also to evaluate the occlusion for the presence of open bite, cross bite, molar relationship, and excessive overjet.

Results: 57,3 % of the children had malocclusions (anterior open bite, posterior cross bite, bilateral Class II molar relationship, or overjet >4 mm).

Class II molar relationship was most common (33.9 %). Also anterior open bite was present in 27.1 % of the children with mixed dentition. Nonnutritive sucking habits are associated with a greater risk of cross bite, open bite, Class II molar relationship ($p < 0.01$).

Conclusions: Malocclusions are quite prevalent in the period of mixed dentition, and anterior open bite and posterior cross bite are mostly caused by non-nutritive sucking behaviors.

Key words

anterior open bite, malocclusion, non-nutritive sucking habits, open bite, posterior cross bite

Efficiency of fissures filling in caries prevention

Authors: **Monika Kitanova**

Co -author: Stefan Ilievski

Mentor: Sonja Rogoleva

Co-mentor: Verica Toneva -Stojmenova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Dental caries is a pathological process leading to demineralization and destruction of the hard tissue in teeth without the possibility of its natural repair.

Aim: The main aim of our research is to determine the effectiveness of fissure filling in the prevention of dental caries.

Matherials and methods: The main analysis included filling the fissure of the first permanent molars in children at the age of 7 years. The total number of respondents was 152 children (group of examinees). The data was collected from public health institution where the analysis was conducted. Of these, 79 were male and 66 female and 7 children did not come for examination. We re-examined the study group after 18 months. Another group of examinees (control group) included 11 years old children that did not have preventive fissure filling. A total number of 145 children, of which 82 are female and 63 male.

Results: Among the children in the first group that had fissure filling of the first permanent molars, the risk of developing caries was reduced to minimum so 97% of the subjects had healthy first permanent molars without any carious changes. While in the second group of children who did not have fissure filling of the first permanent molars, we had an increased cavity incidence, and 58% of the control group had carious changes on first permanent molars.

Conclusion: Fissures fillings according to our study have great efficiency in caries prevention.

Key words

Dental caries, filling fissures, Demineralization, Reparation, molars.

Variations in cuspal morphology in upper first permanent molars among dental students

Author: **Bojana Simevska**

Co-Author: Elena Charakchieva

Mentor: Olivera Terzieva –Petrovska

Co-Mentor: Kiro Papakoca

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Background: Maxillary first molars are the biggest of all maxillary molars and have great importance in mastication and occlusion. The morphological variations can cause clinical implications such as bigger plaque accumulation due to abnormal morphology of the fissures, caries due to presence of deep pits, occlusal disturbances due to abnormal location, difficulties in restorative, surgical and endodontic procedure.

Aim: The main aim of this study was to investigate the variation of cusps and other morphological characteristics of permanent maxillary molars.

Material and method: The research was done to all 132 dental medicine students and all 38 full-time students on professional studies for a dental technician on the Faculty of medical sciences on the „Goce Delcev” University in Stip, Republic of N. Macedonia. Intra-oral examination was done in order to assess the number of occlusal tubers in the maxillary first molars.

Results: A total number of 318 maxillary molars were present in the total number of examined subjects (170). Most of the maxillary molars in our research have four cups (66.67 %), 32.71 % of examined occlusal surface of maxillary molars have five cups, and 0.62 % from the examined maxillary molars have three cups. Most of the students which have three cups on the permanent maxillary first molars were present unilaterally.

Conclusion: Based on our research, we can conclude that on the occlusion surface of the first maxillary molar among our subjects four cups are dominantly present. Such results coincide with the most common literary data.

Key words

cuspal morphology, first maxillary molar, occlusion surface, students, variations

Xerostomia and Causative Consequences

Author: **Valerija Stojanovska** Co-author: Viktorija Stojanovska

Mentor: Sonja Rogoleva Co-mentor: Darko Kocovski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Xerostomia or even known as dry mouth represents a significant reduction in saliva secretion caused by damage of salivary glands from certain systemic diseases, a number of drugs, and radiotherapy of the head and neck.

Goal: The purpose of our examination is to determine the degree of xerostomia as cause of pathological changes in the oral cavity.

Materials and methods: In the study 100 respondents were tested aged 30 to 70 years. They were divided into two groups: the first group - (TG) tested group (patients with xerostomia) and the second group - (CG) control group (patients with normal salivary secretion). In both groups information about age, sex, habits, general illnesses and local changes were collected.

Results: The amount of unstimulated saliva is significantly reduced in the tested group compared with the control group. As a result, oral manifestations - oral candidiasis, increased accumulation of dental plaque, dental caries, and gingivitis are significantly more common in patients in the tested group than in the controlled group.

Conclusion: The occurrence of xerostomia, as a subjective symptom, in patients with certain systemic diseases is inevitable and is due to the quantitative and qualitative deviations of the main defensive mechanism of the oral cavity - saliva. As a result of this phenomenon, in patients were recorded numerous oral manifestations.

Key words

Saliva, gingivitis, xerostomia, caries, plaque

Teeth hypersensitivity after restoration

Author: **Nenad Karov**

Co-author: Martin Treneski

Mentor: Ljupka Lazarova

Co-mentor: Mihajlo Petrovski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: In this study the main aim was to describe the pain that is provoked during mastication and on cold, warm and sweet, which last of a certain period (weeks) after setting the definitive restoration. This pain is called hypersensitivity on the teeth.

Materials and Methods: For this case, total number of 25 patients were examined after definitive composite restoration of the teeth. After restoration of the teeth, patients were observed whether they had any sensitivity or not.

Results: Among 7 patients (28 %) dental hypersensitivity was present. Average during of the pain was 7.5 days, with maximum of 24 days. Sensitivity (hypersensitivity) is different in every patient and it has mostly subjective component.

Conclusion: Dental hypersensitivity is often present after placing of direct composite fillings. Adequate follow-up of all protocols in setting up the definitive charging is necessary to avoid such a complication.

Key words

hypersensitivity, mastication, pain, restoration, sweet, warm

Microbiology in the oral cavity

Author: **Anastazija Joleva** Co-author: Monika Netkova

Mentor: Natasha Longurova Co-mentor: Katerina Zlatanovska

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Microorganisms in the oral flora are forced to survive together in a common whole, i.e. to lead a common life. In this common life there are various forms of interactions, with each type of microorganism fighting for its own existence. The aim of our research is to systematize the bacteria that are located in the oral cavity and accumulate on the hard and soft tissues, almost always forming a bacterial biofilm.

Material and method: Through the research data available to us, we investigated the bacteria as they begin to inhabit the period of the newborn in the periods of life and which diseases they cause when the conditions in the bacterial microflora or the general condition of the host.

Results: Oral cavity of a newborn does not contain bacteria, it is sterile, but quickly becomes colonized. The first colonization with microorganisms begins at birth and mostly belongs to the genus: Streptococcus, Neisseria, Actinomyces, Veillonella and Lactobacillus. Puberty is a period where spirochetes also colonize the mouth and depth of the gingiva, and it has been shown that some female sex hormones alter the nature of sub-gingival biofilm (in the area between the gingiva and the neck of the tooth).

Conclusion: Research has shown a major role for oral microorganisms on two severe oral diseases: dental caries and periodontal disease, and it should be noted that avoiding oral hygiene can often be disastrous for oral health, even after social life .

Key words

Microbiology, oral microbiology, bacteria

Presence of third molar among students from third year, dental medicine

Author: **Andzelo Dimov** Co-author: Mario Jovanov

Mentor: Sandra Atanasova Co- Mentor: Ljubica Proseva

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: A wisdom tooth or third molar is one of the three molars and it is located distal in the dental arch. The age at which wisdom teeth erupt is variable, but generally occurs between seventeens and early twenties. Wisdom teeth usually don't need to be removed if they're impacted but aren't causing any problems. Extraction of this type of third molars can bring more risks for complications than benefit.

Aim: The purpose of this study was to analyze the dental status of third-year students and to determine the presence of third molars. Also, the extracted and impacted teeth were noted.

Material and methods: In the analysis a total of 20 students, 14 were females and 6 males from third year study of dental medicine. The data for this study was collected with anamnestic questionnaire, including the information about the molars that were extracted. An intraoral examination and an RTG status also were taken for proving the presence of the wisdom teeth in the oral cavity.

Results: 30% of the students don't have any third molar erupted and they are all females, 20% have 1 third molar erupted, and they are also females. 35% have two third molars erupted (4-Females and 3-Males). There is no presence of three third molars erupted. Only 15% have all four wisdom teeth erupted and they are only males.

Conclusion: The main conclusion from the analysis is that no student has an extracted third molar. In females' students there is only situations with one and two erupted wisdom teeth but in male students' situation is different and part of them have four erupted wisdom teeth.

Key words

analysis, students, wisdom teeth

Prevalence of denture stomatitis among institutionalized elderly

Author: **Keti Nikolova** Co-Author: Cvetanka Srceva

Mentor: Mihajlo Petrovski Co-Mentor: Olivera Terzieva-Petrovska

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Denture-related stomatitis indicates an inflammatory process of the mucosa that bears a complete or partial removable dental appliance, typically a denture. The presence of mucosal lesions among institutionalized adults is quite high and most frequent lesions of the oral mucosa that are present are those induced by wearing dentures. These types of lesions are associated with instability of dentures, inadequate oral hygiene and irregular dental check-ups. The main aim was to determine the prevalence of denture stomatitis and its predisposing factors among institutionalized elderly.

Material and method: a total number of 73 subjects older than 65 years from examination done in the "Mother Teresa" nursing home for elderly population located in Skopje. All of the subjects with prosthetic devices were examined for denture stomatitis presence. The examination was done with visual inspection and palpation.

Results: Denture stomatitis was noted in 45.2 % of the subjects. The most clinical presentation of denture stomatitis among institutionalized elderly were punctate hyperemia in 51.9 % ,diffuse erythema in 35,4% and as papillary hyperplasia in 12,7%.

Conclusion: The prevalence of denture stomatitis among institutionalized elderly is high in denture users. Therefore, appropriate advice on denture maintenance should be provided.

Key words

denture stomatitis, papillary hyperplasia erythema, stomatitis protetica

3 Shape TRIOS- Intraoral Scanner

Author: **Stanija Zlatanovik**

Co-Author: Dijana Davitkova

Mentor: Suzana Krmzova

Co-Mentors: Kiril Mitevski and Pavle Apostoloski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

The main aim of this presentation is to show of the world's first wireless intraoral scanner and so much more than just a digital impression -TRIOS 3-Intraoral Scanner. This wireless intraoral scanner is fast, accurate, and comes with continuous software updates. The 3Shape TRIOS wireless is the latest advanced technique nowadays.

TRIOS Patient Specific Motion records a patient's individual jaw movement and highlights static and dynamic occlusal contact points, so you can perfect the fit of you . The newest Artificial Intelligence (AI) technology makes scanning easier by removing unnecessary soft tissue as you scanner for restorations. To perfect restorations, TRIOS Patient Specific Motion lets record a series of different bite positions and highlight occlusal contacts for dynamic patient specific articulation.

The American Dental Association has conducted a study by the University of Maryland and University of Freiburg in Germany. The study has included and evaluated the accuracy of the six leading intraoral scanners in the dental market. This study found 3Shape TRIOS® to be both the most accurate and consistent performer of the six intraoral scanners tested.

TRIOS 3 intraoral scanner offers perfect scanning, planning and designing. Create high-quality digital impressions in life-like colors and apply shade measurement to evaluate treatment and activate quality dialogue with patients.

Key words

wireless, Intraoral scanner, TRIOS Patient Specific Motion, TRIOS 3

Complication of fixed dental prostheses

Author: **Viktorija Zlatkova**

Co – author: Sara Trajanova

Mentor: Kocovski Darko

Co – mentor: Sonja Rogoleva

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Fixed dental prostheses with appearance and function faithfully replace natural teeth, but they do not have that toughness and smoothness as natural teeth.

Aim: The aim of this study was to show the complications that arise from fixed dental prostheses in the oral cavity.

Material and Methods: For realization of the aim of this study, adequate literature research was obtained. Contemporary dental journal papers with relevant scientific and professional studies were used.

Results: From the obtained research can be noted that the most common complications that occur among fixed dental prostheses wears are: crown fracture, loss of retention, need for endodontic treatment, periodontal disease, caries, root fracture, abutment tooth discoloration.

Conclusion: Fixed dental prostheses, even if considered as one of the most modern and most biocompatible prostheses they still have some disadvantages.

Key words

fixed prostheses, fracture, oral cavity

Laboratory techniques for dental veneer restoration

Author: Stefanija Gorgieva

Co-author: Martina Daruda

Mentor: Katerina Zlatanovska

Co-mentor: Natasa Longurova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

A dental veneer is a thin layer of porcelain or composite material bonded to the surface of a tooth. The aim of this study was to evaluate which of the three types of veneers (composite resin veneers, conventional porcelain veneers and lumineers) is the most used among the dental technicians in Macedonia and to determine which is the most common method they use for their manufacturing.

Materials and methods: Thirty private dental technician laboratories from various parts of Macedonia were comprised in this study. In order to collect information from the dental technicians a specific self-reported questionnaire was included in the study. Statistical analysis was performed by using paired sample t-test from Statistical software SPSS for Windows version 23. A p-value < 0.05 was considered as statistically significant.

Results: We registered that greater percentage of dental technicians (25 subjects - 83,33%) fabricate composite resin veneers, porcelain veneers were noticed in only 16 technicians (53,33%) and none of them fabricate lumineers. As far as the production of porcelain veneers is concerned, we found that the most common method is press technique (62,5%), followed by a refractory die method (18,75%), Cad/Cam technology (18,75%) and on platinum foil (0%).

Conclusions: Today, there are many all-ceramic systems available to dentists and dental technicians that offer choices like never before. The choice of material and technique depends on the indications and clinical case. There are many ways to fabricate dental veneers.

Key words cad/cam technology, composite resin veneers, porcelain veneers, press technique, refractory die method.

Immediate loading of dental implants in 7 days

Author: **Dubravka Angjelic Krstevska** Co - authors: Danilo Krstevski, Katerina Spasovska, Dario Krstevski

PZU "Stela" - Skopje

Mentor: Prof. d-r Dragoljub Veleski Co – mentor: Prof. d-r Cena Dimova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

In the clinical dental practice, often we are faced with patients who have very few teeth left or haven't any at all. The prosthodontic is the future of these problems. With its many possibilities, it has a scientific basis to solve all these cases. Our therapy plan is a combination of setting 4 dental implants with surgical intervention in the lower jaw in which no tooth is present. A hybrid denture is screwed on the implants. This denture is smaller and reduced compared to the standard mobile denture. The new hybrid denture is immobile in chewing, talking and any other function, which makes it incomparably more acceptable for patients who have been struggling for years with the inevitable mobility of the traditional total denture. This is not a fantasy without basis but rather a sure and perfectly modern solution to such a complex problem. This technique is a practical combination for total quality rehabilitation of the disappointed patients. Namely, a hybrid denture on the implants is added on the minimal number of 4 implants, within 3 - 7 days. It resembles a fixed bridge construction with a maximum of 12 teeth. The free space is covered circularly, from the left to the right chewing center. Basically, the hybrid denture contains combined elements of fixed bridges, partial and total mobile dentures. Since the mobile and fixed dentures in this case interwave and complement each other, a solid preparation is required for the process of making and placing the immediate hybrid denture.

Key words

Denture, implants, loading.

Acrylic bridges-advantages for everyday dental usage

Autor: **Angela Davcevska** Co-autor: Marija Ristova

Mentor: Ljupka Lazarova Co-Mentor: Olivera Terzieva- Petrovska

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Acrylic bridges - aesthetic fixed-prosthetic are aimed for the replacement of one or more teeth in the upper and lower jaw. They may be temporary or provisional and permanent (2 or more years).

Materials from which acrylic bridges can be manufactured include: Poly methyl methacrylate, Poly-ethyl butyl methacrylate and Bis-acrylic composite.

Advantages on acrylic bridges are: excellent primary aesthetics, technical preparation relatively simple, shorter production time, relatively cheap, biocompatible, relatively durable, great resistance to impact, light weight, easy to finish and polish, material can be added to that does not change the whole work.

Based on the fact that acrylic bridges have numerous advantages, we can conclude that they need to become an inevitable part of everyday dental practice.

Key words

acrylic, aesthetic, advantages, bridges, prosthetic devices.

CAD/design and types of aesthetic layering zirconia

Author: **Filip Stojanovski** Co-authors: Tanja Jovanova, Teodora Stojkova

Mentor: Kiril Mitevski

Co-mentor: Pavle Apostoloski

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Zirconium restorations are put in place to achieve a better aesthetic appearance that over the years aesthetically does not satisfy or if there is a shortage of certain teeth to compensate for the space.

Aim: To present the method of making full-featured zirconia and the construction of a vestibular cut-back modeling technique through a CAD / Design system with complete anatomy-morphological features. The aim is to make a comparison between these two techniques.

Material and method: The 3Shape program is one of the programs used to design bridges or crowns. Zirconium discs are used on which the designed bridge or crown through the CAD / Design system is operated. CAD / Design system is a system used to design the anatomo-morphological characteristics of the bridge or crown that needs to be made.

After the designing, zirconium discs are used for bridge or crown modeling and they are part of the CAD / CAM system. In the case of full zirconia bridges or crowns after their cutting they are stained with paint, and in the case of cut-back zirconia, a bridge construction allows designing a certain space on the vestibular surface to place ceramics.

Conclusion: These crowns or bridge are long lasting, naturally lying under the gingiva and showing successful incorporation in the oral environment. Also, zirconium crowns do not have transparency and do not differ from natural teeth, making it very difficult to see the difference between the crown and the already existing natural tooth.

Keyword

full zirconia, cut-back zirconia, CAD / CAM, CAD / CAM prosthetics.

Cleaning re-usable instruments in general dental practice

Author: **Radmila Dimitrovska** Co-author: Teodora Adzieva

Mentor: Verica Toneva

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: This study examined the procedures, environment and equipment used for the cleaning of dental instruments in general dental practice. Cleaning dental instruments is the first and very critical step in processing them for reuse.

Aim: The aim is to follow an appropriate process for the segregation, cleaning and sterilization of re-usable items, and for the appropriate disposal of single-use items, understand the various cleaning and sterilization devices available and select the correct materials used in preparing instruments prior to sterilization, package instruments appropriately for sterilization and ensure correct storage of sterile instruments.

Materials and methods A total of 30 interventions were surveyed. This was an observational based study in which the cleaning processes were viewed directly by a trained surveyor. Information relating to surgery policies and equipment was also collected by interview.

Results: The most common method for cleaning dental instruments was manual washing, with or without the use of an ultrasonic bath. Automated washer disinfectors were not used by any surgery visited. The manual wash process was poorly controlled, with 41% of practices using no cleaning agent other than water. Only 2% of intervention used a detergent formulated for manual washing of instruments.

Conclusions: In many dental practices, the cleaning of re-usable dental instruments is undertaken using poorly controlled processes and procedures, which increase the risk of cross infection.

Key words

Cleaning dental instruments, sterilization, survey

Differences in the modeling of a wax construction for faceting with composite and ceramic masses

Author : **Emilija Malakovska**

Co-author: Tijana Stojanovska

Mentor: Pavle Apostoloski

Co-mentor: Ljubica Prosheva

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

The modeling of the artificial wax crown in shape is the same as the natural crown only reduced by the thickness of the facet layer. The crowned crown consists of a closed metal skeleton, an aesthetic part, a space for the fascia and a zipper. In faceting with acrylate -composite masses, the connection between the metal and the acrylic facet is mechanical, it is necessary to provide sufficient mechanical retention on the metal skeleton to enable the attachment of the facet. The feeds are provided in several ways: by placing thin strips of wax, making grooves , by placing acrylic retention pearls. While in faceting with ceramic masses, the bond between metal and ceramics is chemical, so it is not necessary to make mechanical retention. Also, it is not necessary to model a protected occlusal metal edge in the side teeth or metal protective edge of the frontal teeth, because the ceramics are resistant to pressure and abrasion.

Key words

Faceting, acrylate -composite masses, abrasion, wax, retention pearls.

Midline Diastema Closure

Author: **Viktorija Popovska**

Mentor: Darko Kocovski

Co-Mentor: Monika Atanasov

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Maxillary midline diastema (diastema mediana) is a space greater than 0.5 mm between the two central incisors. Diastema mediana is a common esthetic complaint. Closure of the diastema or reduction of its width in clinical practice requires a detailed analysis of each individual case.

Aim: The aim of this study was to show solution of diastema closure with direct composite.

Case report: A 35 years old female patient visit our dental office searching for solution for his unsatisfactory smile appearance. Thought clinical examination spacing of 3mm between her upper central incisors was found. All the solutions were offered to the patient and the Flowable Frame Technique was chosen as the best solution. This method represents a minimally invasive method; tooth preparation is not necessary; the composite was applied directly to the tooth. After follow-up there were no signs of changes in the restoration.

Conclusion: Flowable Frame Technique for the closing diastema was time saving and cost, the thickness of the restoration material layer to be used can be foreseen in advance.

Key words

diastema, closure, direct.

Direct composite laminates for a perfect smile

Author: **Verica Sajkarova**

Co-Author: Mirjana Ristovska

Mentor: Ljubica Proseva

Co-mentor: Sandra Atanasova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Aim: The main aim is to present the composite laminates with direct layering technique, as modern method used in aesthetic dentistry for the correction of minimal irregularities. Also, with this case we want to present the advantages of dental laminates.

Clinical case: It is the patient who was not happy with his smile. We made composite laminates for 12 and 22 in maxilla and to improve his smile, and we got a very satisfied patient and perfect smile.

Conclusion: The advantages of the laminates are those that they are the latest choice for the patients that are looking for a perfect smile from a reason that with a proper care they can last a long time, and the need care as natural teeth, making is fast, and the results-perfect smile.

Key words composites, laminates,aesthetics, advantages, smile.

Techniques for fabrication of temporary dental restorations

Author: **Dimitar Mitev**

Co-author: Ognen Cvetanoski

Mentor : Julija Zarkova Atanasova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Introduction: Temporary restorations are an important part of modern prosthodontic treatment. Temporaries are made nearly exactly like the final restoration while protecting from mechanical, thermal, chemical and biological irritations and improving the patient esthetics and function. They are beneficial in diagnostics and treatment planning. Form, shape, shade and occlusion can be easily evaluated and corrected.

Aim: The aim was to evaluate the efficiency of different techniques for fabrication of temporary restorations.

Material and methods: Fifteen temporary restorations for single crowns and dental bridges were made with three different techniques direct, indirect and direct–indirect. The direct technique was performed completely in the patient's mouth in one session with putty index after preparation and self-curing bis-acrylic composite resin. The indirect technique was done all in laboratory with wax up of prepared and missing teeth and direct–indirect technique was combination of two techniques but is done before preparation. Advantages and disadvantages were noted during the process of fabrication.

Results: The direct technique is the least time-consuming procedure, but bis-acrylic resin often gets stuck and locks into undercuts which makes removing the restoration without deformation very difficult. Indirect technique does not consume chair time, but the patient will be longer without restoration making the unprotected prepared teeth more prone to influence of irritations. Direct-indirect technique provides template for the definitive restoration, saves chair time and permits removal of old and immediate replacement with the final restorations.

Conclusions: The most efficient technique for fabrication of temporary dental restorations is the direct-indirect technique.

Key words

bis-acrylic composite resin, provisional, putty index, wax-up.

Prevalence of temporomandibular disorders among dental students in University Goce Delcev - Stip

Author: Senad Kovacevik Co-author: StefanijaStojanova

Mentor: Katerina Zlatanovska Co-mentor: Julija Zarkova Atanasova

Faculty of medical sciences, Goce Delcev University- Stip

Abstract

Aim: The aim of this study was to evaluate the prevalence of temporomandibular disorders (TMDs) among dental students in University “Goce Delcev” – Stip, Macedonia and to investigate its correlation with gender, emotional stress and parafunctional habits.

Materials and methods: The study was conducted on a sample of 90 dental students from 3th, 4th and 5th academic year. Presence of temporomandibular disorders was determined by an anamnestic questionnaire containing questions related to the presence of parafunctional habits and emotional stress (Fonseca anamnestic index), as well as questions which covers demographic data (sex, age and academic year).

Statistical analysis was performed by using paired sample t-test from Statistical software SPSS for Windows version 23. A p-value < 0.05 was considered as statistically significant.

Results: Mean age of the dental students included in the study was 22.6 ± 0.7 years, males (35.6%) and females (64.4%). According to the Fonseca anamnestic index, 48.9% of the subjects were classified as having no dysfunction, followed by light (35.6%), moderate (11.1%) and severe dysfunction (4.4%). We registered higher prevalence of TMDs in female students. A greater prevalence of TMZ was also observed among students who describe themselves as being tense. The presence of parafunctional habits was statistically significant for the occurrence of TMDs in both genders.

Conclusions: This finding indicate that light to moderate prevalence of temporomandibular disorders exist among dental students in Stip, Macedonia. Females showed a greater prevalence of TMDs than males. Stress and paraphonic habits have proven to be significant etiologic factors involved in initiation and maintenance of temporomandibular disorders among dental students.

Keywords

parafunctional habits, pain, stress, temporomandibular disorders.



WORKSHOPS

“Introduction to Dental Implantology – Basic Surgical Procedures of Implant Placement”

Prof. dr. Kiro Papakoca, Ass. Dr. Mihajlo Petrovski, Dr. Suzana Krmzova, Dr. Ljubica Proseva

- **Theoretical part** (45 min.) : Basic remarks for dental implants;
Diagnosis, treatment plan and preparation of a patient for dental implantation
Indications and contraindications for placement of dental implants
Surgical protocol for dental implant placement;
- **Break** (10 min)
- **Practical part** (2 hours)
 - Placement of implants on working models (training implant in plastic or jaw of animal origin);
 - Selection and setting up abutments on work models (placement an abutment on the implants).

Registration for the course on the following mail: karmzova.88@gmail.com

Maximum number of participants - 20

“Oral hygiene practices and tooth cleaning techniques”

Ass.Prof.d-r. Sanja Nashkova , Ass. d-r Mihajlo Petrovski, MrSci d-r Olivera Terzieva Petrovska d-r. Ljubica Proseva

- **Theoretical part** (45 min)

The importance of oral hygiene

Basic and additional ways for maintaining adequate oral hygiene types
and selection of toothbrushes

Oral hygiene techniques

Meaning and maintenance of interdental hygiene

- **Practical part** (1.5 hours)

Presentation of the most common techniques for brushing teeth

Presentation of techniques for removing dental plaque from the interdental spaces

Motivations to maintain an adequate level of oral hygiene

Use of metil-blue for coloring the surfaces of the teth that have dental plaque and using the techniques for its cleaning

Maximum number of participants - 10

e-m ail for applications: ljubica.proseva1994@gmail.com

“NEEDLES, SUTURE MATERIALS AND KNOTS USED IN ORAL SURGERY PROCEDURES”

- **Lecture:** Prof d-r Cena Dimova
- **Instructors:** Prof. d-r Cena Dimova, d-r Sonja Rogoleva
- **Introduction:** The paramount goal of soft tissue surgery is closure of wound flaps, in the absence of tension on the flaps, which will lead to optimal wound healing.

Oral surgical procedures that require flap manipulation such as those used with traditional oral surgery procedures, dental implantation, periodontal therapy, hard and soft tissue regeneration, and the excision of pathologic tissue require excellence in execution and a thorough understanding of the various techniques of surgery, suturing and the materials currently available to ensure the desired clinical results.

- **Aim:** Dental surgery involves the creation of a wound and necessitates closure of this wound to allow healing and

to achieve the surgical objective. The primary objective of wound closure is to position and secure surgical flaps through suturing to promote optimal healing.

Needles

The surgical needle comprises three parts: the needle point, the needle body and the swaged (press-fit) end. Suture needles are usually classified according to their curvature, radius and shape. The most commonly used suture needles in dentistry are the 3/8 and ½ circle needles

Suture thread

Tensile strength is an important quality when selecting which thread is appropriate for the intended use. Tissue biocompatibility, ease of tying and a thread type that permits minimal knot slippage also influence selection. Adequate strength of the suture material will prevent suture breakage, and proper suture knots for the material used will prevent untimely untying or knot slippage.

Knots

Surgical knot tying is an important component of the art of suturing. It is essential for knot security and to prevent untimely knot untying that the appropriate surgical knot be used for the specific suture material being secured.

□ **Conclusion**

Many varieties of suture material and needles are available to the oral surgeon. The choice of sutures and needles is determined by the location of the lesion, the thickness of the mucosa in that location, and the amount of tension exerted on the wound. Regardless of the specific suture and needle chosen, the basic techniques of needle holding, needle driving, and knot placement remain the same.

Program (group of maximal 12 students)

-lecture of oral surgery armamentarium for oral surgery incision, flap design and suturing (needles, suturing materials and knots).

Workshop

-Demonstration of suturing technique: simple loop, interrupted suture, horizontal and vertical mattress suture.

Registration for the course on the following mail:

sonjarogoleva@gmail.com

“ALTERNATIVE MANDIBULAR ANESTHESIA”

- **Lecture:** Prof d-r Cena Dimova
- **Instructors:** Prof. d-r Cena Dimova, d-r Sonja Rogoleva
- **Introduction:** the inferior alveolar nerve block (IANB), also known as the “standard mandibular nerve block” or the “Halsted block,” has been used to provide anesthesia in mandibular teeth. This technique, however, has a success rate of only 80 to 85 percent, with reports of even lower rates. Investigators have described other techniques as alternatives to the traditional approach, of which the Gow-Gates mandibular nerve block and Akinosi-Vazirani closed-mouth mandibular nerve block techniques have proven to be reliable. Dentists who know how to perform all three techniques increase their probability of providing successful mandibular anesthesia in any patient.
- **Aim:** In this workshop the Gow-Gates technique is reinterpreted using a geometrical approach based on lines and planes and is proved mathematically. In so doing a simple yet concise method of reaching the injection site is presented with a definite relationship between the anatomical pathway of the needle and a formal geometrical and mathematical pattern.
- **Conclusion** Alternative techniques are indicated for any type of dentistry performed in the mandibular arch, but they are particularly advantageous when the patient has a history of standard IANB failure owing to anatomical variability or accessory innervation.

Number of students is limited to 8

Registration for the course on the following mail:

sonjarogoleva@gmail.com

“TOOTH COLOR ASSESSMENT METHODS IN DENTAL PRACTICE”

Ass. d-r Julija Zarkova Atanasova , Ass. Prof.d-r Katerina Zlatanovska, Ass.d-r Sandra Atanasova

- **Theoretical part**

Basics and dimensions of color, systems for color notation, color in dentistry Optical properties of natural teeth

Visual methods for shade matching, shade guides and communication of color

Factors influencing accurate shade matching, color blindness

Shade selection of prepared abutment teeth and factor influencing final color of restorations Instrumental methods for color assessment in dentistry

- **Practical part**

Color blindness testing using various color vision tests

Demonstration of shade guides Vita classical, Ivoclar Chromascope, Vita 3d Master and their application in shade matching of natural teeth.

Shade matching of artificial teeth with shade guides

Online shade matching - using Toothguide Trainer Web Vita Zahnfabrik

Demonstration of clinical spectrophotometer Shade PilotTM and software analysis of tooth color.

Evaluation of the training course and summary

Registration for the course on following mail: julija.zarkova@ugd.edu.mk

Maximum number of participants is 15 students

“Aesthetic follows function Ceramic vs Composite”

MrSci.dent.tech.Claus Jurgen, Dent.tech.Blagoj Davitkov, Spec.dent.tech. Pavle Apostoloski

A beautiful smile can do wonders ... but if even nature does not always succeed, how should dental technicians do the job?

The individual harmonious design of an entire anterior restoration or a single tooth is a great challenge, which requires not only a good eye and craftsmanship, but understanding of shapes and their impact on the overall appearance.

In addition to the aesthetic requirements, the functional factors must also be taken into account. Whether front or side teeth, they should not only look beautiful, but also fulfill their task as a tool.

Today's framework materials for ceramics are very different.

There are numerous tips and tricks for handling the different framework materials, e.g. in controlling the brightness and opalescence.

However, the concept of layering technology is independent of the framework materials and allows for aesthetic, individual and functional solutions even in small spaces.

If at the end everything fits well into the patient's mouth, nothing stands in the way of a radiant smile, as well as the recognition of the patient and a sure enthusiastic recommendation.

“CAD/ Design and types of aesthetic layering zirconia”

Spec.dent.tech. Kiril Mitevski , Dent.tech. Kiril Martulkov, Dent.tech. Konstantin Martulkov

CAD/Design and types of aesthetic layering zirconia is a workshop where you can see the techniques and the way of making a skeleton for full zirconium, making a construction for vestibular faced zirconium (cut-back) technique.

With CAD/Design system you will be able to see and learn the way of full design anatomy- morphological characteristics for the skeleton construction of full zirconium and special way of designing the construction for vestibular faced zirconium (cut-back) technique. At the end, as an example, a central incisor will be taken for vestibular faced zirconium (cut-back) technique.

DESIGNED BY

OLIVERA TERZIEVA- PETROVSKA

MIHAJLO PETROVSKI