

25th BaSS CONGRESS



ABSTRACT BOOK

"25th Congress of Balkan
Stomatological Society"

SARAJEVO 19. - 21. MAY 2022



Anaftin®

Rastvor za ispiranje usta

ŠTITI OD
BOLA
UBRZAVA
ZARASTANJE...

...Bolnih **ranica** u
ustima nastalih usljed:

- ▶ afti
- ▶ zubnih proteza
- ▶ ortodontskih aparata

- ✓ BEZ ALKOHOLA
- ✓ BEZ LOKALNOG ANESTETIKA
- ✓ BEZ ŠEĆERA
- ✓ BEZ PARABENA

U SVIM APOTEKAMA BEZ LJEKARSKOG RECEPTA!

BERLIN-CHEMIE
MENARINI

BERLIN-CHEMIE AG, Predstavništvo za BiH, Hasana Brkića 2/II, 71000 Sarajevo - BiH, Tel: +387 33 715 195 |
Fax: +387 33 715 187, e-mail: bosnia@berlin-chemie.com | www.berlin-chemie.ba



Primijenite
3-4 puta na dan,
ili prema potrebi.

PRIJE UPOTREBE PAŽLJIVO PROČITATI UPUTSTVO O MEDICINSKOM SREDSTVU. ZA OBAVIJEST O INDIKACIJAMA,
MJERAMA OPREZA I NEŽELJENIM DEJSTVIMA MEDICINSKOG SREDSTVA POSAVJETUJTE SE SA LJEKAROM ILI FARMACEUTOM.





RADIX d.o.o.
Distribucija dentalne opreme



TAJNA našeg
POSLOVNOG
USPJEHA
se nalazi
u
OSMIJEHU!



25 godina jedan od vodećih regionalnih lidera u distribuciji stomatološke opreme i repromaterijala.



DISTRIBUCIJA



SERVIS



PODRŠKA

KOMPLETNA USLUGA

Naš tim stručnjaka će se pobrinuti da uvijek pronađe odgovarajući proizvod i soluciju za vaše potrebe.



036/ 726-243



radix.ba@gmail.com



www.radixdoo.ba

Donje Polje Do br. 1, 88400 Konjic



PREDSTAVLJAMO

Oral-B iO™

REVOLUCI**iO**NARNA
i**O** TEHNOLOGIJA

OSJEĆAJ
PROFES**iO**NALNE
ČISTOĆE SVAKOG DANA



B&B DENTAL
IMPLANT COMPANY



THE CONNECTION BETWEEN ANALOG AND DIGITAL

Visit our website

WWW.BEBDENTAL.IT

or connect to our social media platforms



Via S. Benedetto, 1837 - 40018 • S. Pietro in Casale (BO) Italy • Tel. +39 (0) 51.81.13.75 • Fax +39 (0) 51.666.94.00 • info@bebdental.it

ABSTRACT BOOK

Dear Colleagues,

I warmly invite you to the 25rd Balkan Stomatological Society Congress, which will be held this year in Sarajevo , Bosnia and Herzegovina, from 19 to 21 of May 2022.

This event represents the quarter-century anniversary of Balkan Stomatological Society history and congresses, a history that has been year after year enriched with experiences shared by all the invited lecturers and participants for the benefit of the oral health care of the people residing in the Balkans.



The selection of the governing theme for this international scientific event is not random: the dental medicine practice raises special issues in the treatment of or elderly patients, which often require special demands, opening a wide field of subjects for the dental research.

The BASS Congress will bring Sarajevo in the center of the scientific community. Distinguished speakers from all around the world will offer the most recent updates in the applicative dentistry covering a broad range of topics, and the sessions of conferences and oral communications organized throughout the meeting will provide a valuable framework for all the specialists in the field of dental medicine to change knowledge and to establish new professional collaborations.

We are looking forward to a great experience, one that would enhance communication with our Balkan colleagues and friends. I wish the organizing committee a great success.

With kind regards,

Prof. Norina Forna
BaSS President

Dear friends and colleagues,

It is my pleasure to invite all of you to the 25th Congress of the Balkan Stomatological Society (BaSS), in the period from 19th to 21st of May 2022 in Sarajevo, Bosnia and Herzegovina.



Similarly to the previous Congresses, our aim is to provide and update great and successful scientific platform for the attendants in order to exchange new knowledge findings, confirm well known, search for and expand new ideas and experience in all dentistry fields and improve daily theoretical and practical skills. In that matter, congress scientific program will offer numerous invited speakers from Balkan countries, other European countries and worldwide, which is also supported through FDI Continuing education program. Besides speakers, 25th BaSS Congress will offer various kinds of other scientific continuous education forms, such as lectures and round tables, oral and poster presentations, practical on-site courses, etc.

Congress organizers are preparing large dental exhibition where eminent world dental brands which produce and sell materials, tools and equipment will be present, so that congress attendants could be well introduced where dentistry is technically heading globally today in that matter.

Jubilant 25th BaSS Congress is taking place for the third time in Bosnia and Herzegovina, and for the second time in Sarajevo, capital city. The congress venue is this time situated in Hotel Hills Congress and Thermal Spa Resort, which is located in the center of the green oasis of suburb Sarajevo, and where, not only thorough scientific part, but also by the great local social program, the new friendships could be established and the old ones confirmed and renewed.

Sarajevo, as the 25th BaSS Congress host city, provides much more opportunities for touristic social program for the people from all over the world. The Congress takes place at the late spring, so that the climate and the local weather forecast will certainly provide and support wonderful staying.

We wish you all warm and heartfelt welcome!

Sincerely yours,

Prof. Dr. Sedin Kobaslija,
President of the 25th BaSS Congress

My dear friends and colleagues,

My dear friends and colleagues, It is my pleasure to invite you to the 25th Balkan Stomatological Society (BaSS) Congress. With great satisfaction I can say that previous BaSS Congresses held in Bosnia and Hercegovina (Sarajevo 2006 and Banja Luka 2016) have been visited by a big number of participants and a big number of scientist, oral and poster presentations have been presented.



We are celebrating a quarter of a century of BaSS Congress.

Let my shortly reflect on the past Congresses and BaSS in general. Since the BaSS Congresses started we had a continuum of every year, with exception during the COVID -19 pandemic, although it has not been easy to prepare and host such a great Congress. Thanks to the cooperation and understanding of the members of BaSS Council, BaSS was able to prepare and host a Congress for the past 25 years. During those years BaSS had its ups and downs, but thanking the good will of the members of BaSS Council and our friends and colleagues supporting the BaSS idea, BaSS and BaSS Congresses continue to grow and develop during this first 25 years.

BaSS Congresses have been developed as a platform for exchange of ideas, knowledge, experience, contacts and in the past years we are witnessing that it reached its goals. But the success gives us no right to rest but to improve ourselves and goals that we have set in front of the Balkan Stomatological Society.

My dear friends and colleagues, let us meet again in BaSS Congress in Sarajevo 2022 and continue to improve our dental and academic knowledge and our friendship.

Sincerely yours,

Assist. Prof. Dr. Mihael Stanojevic

President of the Scientific Committee of the 25th BaSS Congress

Congress Committee:

prof. dr. Sedin Kobašlija (BaSS Councilor)
prof. dr. Muhamed Ajanović
prof. dr. Dejan Bokonjić
prof. dr. Ranko Škrbić
assist. prof. dr. Mihael Stanojević (BaSS Councilor)
assoc. prof. dr. Elmedin Bajrić (deputy BaSS Councilor)
dr. Siniša Kovačević

Organizing Committee:

assoc. prof. dr. Elmedin Bajrić
assoc. prof. dr. Nina Marković
assoc. prof. dr. Selma Zukić
dr. Damir Duratbegović, MSc
dr. Gordan Jurišić, MSc
dr. Nedžad Terzić
dr. Miroslav Lučić (deputy BaSS Councilor)
dr. Ivica Uzelac Pavelić
dr. Dragan Marčeta
dr. Gordana Simić
dr. Suzana Bastašić
dr. Savo Kostadinović
dr. Saša Dabić

Scientific Committee:

assist. prof. dr. Mihael Stanojević
assist. prof. dr. Jelena Krnić
assist. prof. dr. Marija Obradović
assist. prof. dr. Radmila Arbutina
assoc. prof. dr. Amina Huseinbegović
assoc. prof. dr. Mediha Selimović-Dragaš
assoc. prof. dr. Lejla Kazazić
assoc. prof. dr. Sanja Hadžić
assoc. prof. dr. Mirjana Gojkov-Vukelić
assoc. prof. dr. Alma Konjhodžić
prof. dr. Adem Salihagić

Scientific Committee-International members

prof. dr. Norina Forna
prof. dr. Argirios Pissiotis
prof. dr. Ana Minovska
prof. dr. Ender Kazazoglu
prof. dr. Athanasios Pouloupoulos
prof. dr. Dejan Markovic
prof. dr. Ruzhdie Qafmolla
prof. dr. Rozarka Budina
assoc. prof. dr. Edit Xhajanka
prof. dr. Andon Filtchev
assist. prof. dr. Nikolai Sharkov
assoc. prof. dr. Miroslava Dinkova
assoc. prof. dr. Konstantinos Arapostathis
assoc. prof. dr. Antigoni Delantoni
assoc. prof. dr. Mirjana Djurickovic
prof. dr. Jasminka Andjelic
assoc. prof. dr. Zoran Vlahović
assoc. prof. dr. Ilijana Muratovska
prof. dr. Elizabeta Gjeorgievski
assoc. prof. dr. Paula Perlea
prof. dr. Ecaterina Ionescu
assoc. prof. dr. Oana-Elena Ciurcanu
prof. dr. Momir Carevic
prof. dr. Aleksa Marković
prof. dr. Gurkan Gur
prof. dr. Murat Akkaya
assoc. prof. dr. Ismail Baltacioglu
prof. dr. Božidar Pavelić
assoc. prof. dr. Dorian Agop-Forna

BaSS EXECUTIVE COMITTEE

| | |
|--------------------|-----------------------------------|
| President | prof. dr. Norina Forna |
| Past President | prof. dr. Argirios Pissiotis |
| President Elect | prof. dr. Ana Minovska |
| Vice President | prof. dr. Ender Kazazoglu |
| Secretary General | prof. dr. Athanasios Pouloupoulos |
| Honorary Treasurer | dr. Nicos Maroufidis |
| Editor in-Chief | prof. dr. Dejan Markovic |

BaSS COUNCIL MEMBERS

| <i>COUNTRY</i> | <i>COUNCILOR</i> | <i>DEPUTY COUNCILOR</i> |
|--------------------------------------|---|--|
| <i>ALBANIA</i> | prof. dr. Ruzhdie Qafmolla prof. dr. Rozarka Budina | assoc. prof. dr. Edit Xhajanka dr. Virgjini Mulo |
| <i>BOSNIA AND HERZEGOVINA</i> | assist. prof. dr. Mihael Stanojević prof. dr. Sedin Kobaslija | dr. Miroslav Lucic assoc. prof. dr. Elmedin Bajric |
| <i>BULGARIA</i> | prof. dr. Andon Filtchev assist. prof. dr. Nikolai Sharkov | assoc. prof. dr. Miroslava Dinkova dr. Ivailo Metodiev |
| <i>CYPRUS</i> | dr. Rodos Irodotou dr. Huseyin Bicak | dr. George Minas dr. Sami Solyali |
| <i>GREECE</i> | dr. Konstantinos Kougias assoc. prof. dr. Konstantinos Ara-postathis | dr. Konstantinos Kalantidis assoc. prof. dr. Antigoni Delantoni |
| <i>MONTENEGRO</i> | assoc. prof. dr. Mirjana Djurickovic prof. dr. Zoran Vlahovic | prof. dr. Jasminka Andjelic dr. Dzenad Ganjola |
| <i>NORTH MACEDONIA</i> | assoc. prof. dr. Ilijana Muratovska dr. Marijan Denkovski | dr. Bruno Nikolovski prof. dr. Elizabeta Gjeorgievaska |
| <i>ROMANIA</i> | prof. dr. Paula Perlea prof. dr. Ecaterina Ionescu | dr. Doriana Agop-Forna assist. prof. dr. Oana-Elena Ciurcanu |
| <i>SERBIA</i> | prof. dr. Momir Carevic dr. Slobodan Andjelkovic (deceased) | prof. dr. Aleksa Markovic dr. Ana Jotic |
| <i>TURKEY</i> | dr. Nejat Arpak prof. dr. Murat Akkaya | prof. dr. Gurkan Gur assist. prof. dr. Ismail Baltacioglu |

CONGRESS PROGRAM

GUIDELINES FOR PRESENTING AUTHORS

Guidelines for Oral Presentation

- Presenting authors are obliged to turn in their presentation in the appropriate transport device (USB) and deliver it to the speakers Preview Room at least TWO hours before their session.
- The best is to deliver it in the morning for the afternoon session, and the day before for the morning session.
- The Power Point presentations should be checked and previewed at the Speaker Preview Room.
- Time for oral presentation is 10 minutes and the presenting authors are advised not to exceed that time because of the other participants and the time table.
- Oral presentations have to be delivered in ppt or pptx (PowerPoint) presentation version for Office 2013 -2016.

Guidelines for Poster Presentation

- Posters will be presented in e-poster (electronically) form.
- Authors should prepare the presentation in one to three (1 -3) pages in ppt or pptx (PowerPoint) presentation version for Office 2013 -2016. The first page must include their names, degrees and affiliations.
- Posters will be presented orally (in a same way as an Oral Presentation) and the time of presentation should not exceed three (3) minutes maximum.
- Presenting authors are obliged to turn in their presentation in the appropriate transport device (USB) and deliver it to the Speakers Preview Room at least TWO hours before their session. The best is to deliver it in the morning for the afternoon session, and the day before for the morning session.

CONGRESS REGISTRATION

Registration desk is situated at the entrance of the hotel Hills
Congress Center

Registration hours:

Thursday 19. May 2022.

From 10.00 until 17.00 h

Friday 20. May 2022.

From 08.30 until 17:00 h

Saturday 21. May 2022.

From 08.30 until 17.00 h

CONGRESS OPENING CEREMONY

Thursday 19. May 2022. at 19.00 h

MAIN CONFERENCE HALL

CONGRESS GALA DINNER

Saturday 21. May 2022 at 20:00

Main congress restaurant

BaSS COUNCIL PROGRAM

Friday 20. May 2022.

10.00 – 14.00 BaSS Council Meeting

RECEPTION HALL

Saturday 21. May 2022.

9.00 – 11.00 BaSS Award Session

HALL 3

10.00 – 14.00 BaSS Council Meeting

RECEPTION HALL

14.00 – 15.00 BaSS GENERAL ASSEMBLY

MAIN CONFERENCE HALL

SCIENTIFIC PROGRAM

TIMETABLE OF THE LECTURES

MAIN HALL

THURSDAY 19.05.2022.

Session moderator: Assoc. Prof. Dr. Selma Zukić

12.00 – 12.30

P.E.T. PROTOCOL

Prof. dr SELMA TOSUM-POSKOVIC

– BiH, PROSTHODONTICS

BaSS lect.

12.30 – 13.00

***MANAGING CHALLENGES DURING MAXILLARY SINUS
ELEVATION***

Prof. dr. KENAN FERATI, NORTH MACEDONIA

– MAXILLOFACIAL SURGERY

BaSS lect.

13.00 – 13.15

***P&G: ORAL B iO - NEW, REVOLUTIONARY ORAL B TECHNOLOGY
OF ELECTRIC TOOTHBRUSHES***

MIRZA RAMIČEVIĆ

SPONSORED LECTURE

13.15 – 13.45

THE PROGNOSIS OF PULPE VITALITY IN ABUTMENT TEETH

Dr. Anis Thodorjani, ALBANIA,

PROSTHODONTICS/ IMPLANT DENTISTRY

BaSS lect.

13.45 – 14.15

***DIGITAL COLORIMETRY VS CLINICAL REALITY: MYTHS AND
FACTS***

**Assist. Prof. Dr. PANTELIS KOUROS, GREECE -
OPERATIVE DENTISTRY**

BaSS lect.

Session moderator: Assoc. Prof. Dr. Mediha Selimović-Dragaš

15.00 – 15.45

*DENTSPLY SIRONA: ADVANTAGES AND LIMITATIONS OF
MODERN ENDODONTIC THERAPY*

Prof.dr.sc. BERNARD JANKOVIĆ

SPONSORED LECTURE

15.45- 16.45

*“TREATMENT OF EDENTULISM - HOW MUCH BETTER OFF ARE
WE TODAY?”*

Prof. dr. SORIN URAM-TURULESCU, USA
- PROSTHODONTICS

INVITED LECTURER

16.45 – 17.15

*THE STATE OF ORAL HEALTH IN CHILDREN WITH INCREASED
BODY WEIGHT IN MONTENEGRO*

Dr MILAN MARTINOVIĆ, MONTENEGRO -
PEDIATRIC DENTISTRY

BaSS lect.

19.00

OPENING CEREMONY, COCKTAIL

FRIDAY 20.05.2022.

Session moderator : Assist. Prof. Dr. Radmila Arbutina

9.00 - 9.45

***KRAJINAGROUP: INFECTION CONTROL IN DENTISTRY -
A RETURN TO THE FUTURE***

Dr. BOJAN DŽELETOVIĆ

SPONSORED LECTURE

9.45 - 10.15

RADIX: THE SENSE & NONSENSE OF TEETH WHITENING

MENNO ARKESTEIJN

SPONSORED LECTURE

10.15 - 11.15

***“RADIATION-FREE AND RADIATION-REDUCED IMAGING IN
ORAL IMPLANTOLOGY”***

**Prof.dr. FRANZ SEBASTIAN SCHWINDLING, GERMANY
- PROSTHODONTICS**

INVITED LECTURER

11.15 - 11.45

BREAK

11.45 - 12.45

***AUTOLOGOUS DENTIN: THE GOLD STANDARD IN AUGMENTA-
TION MATERIALS?***

Prof. dr MICHAEL KORSCH, GERMANY –

ORAL SURGERY

INVITED LECTURER

12.45 - 13.45

COLOR IN ESTHETICS DECODED

**Prof. dr. RADE PARAVINA, USA –
DENTAL MATERIALS**

INVITED LECTURER

13.45 - 14.15

***CHALLENGES IN PERFORMING ENDODONTIC TREATMENT IN
ELDERLY PATIENTS***

**Prof. dr. Paula PERLEA, ROMANIA -
ENDODONTICS**

BaSS lect.

Session moderator: Assoc. Prof. Dr. Mirjana Gojkov-Vukelić

15.00 – 16.00

FUNCTIONAL REHABILITATION - WHAT WE SHOULD KNOW ABOUT THE TEMPOROMANDIBULAR SYSTEM

Prof.dr. DANIEL HELLMAN, GERMANY

- PROSTHODONTICS

INVITED LECTURER

16.00 – 16.30

BERLIN CHEMIE: APHTHAE AND OTHER ULCER LESIONS IN ORAL CAVITY: WHY DO THEY OCCUR AND HOW TO GET RID OF THEM? Prof. dr. sci. ALMIR DERVIŠEVIĆ

APPLICATION OF ANALGESICS IN DENTISTRY

Dr. PREDRAG JOVIČIĆ

SPONSORED LECTURE

16.30 – 17.00

DENTAL SM: THE RESTORATION OF ENDODONTICALLY TREATED TEETH AS A FINAL STEP IN ENDODONTIC TREATMENT: SUCCESSFUL OUTCOME OR BEGINNING OF FAILURE?

Dr. ALEKSANDRA ŽUŽA

SPONSORED LECTURE

17.00 – 17.30

BOSNALIJEK: ANALGESICS, ANTIBIOTICS AND ORAL ANTISEPTICS IN DENTISTRY

EMIR BOŠKAILO

SPONSORED LECTURE

17.30 – 18.00

BREAK

18.00 – 18.30

ORO-SURGICAL INTERVENTIONS IN CHILDREN AND ADOLESCENCE - YESTERDAY, TODAY AND TOMORROW

**Prof. dr. Zoran VULIČEVIĆ, SERBIA –
PEDIATRIC DENTISTRY**

BaSS lect.

18.30 – 19.00

PROSTHETIC COMPLICATIONS IN IMPLANT DENTISTRY

Dr. Ceyhun Canpolat, TURKEY –

PROSTHODONTICS

BaSS lect.

SATURDAY 21.05.2022.

Session moderator: Assoc. Prof. Dr. Sanja Hadžić

9.45 -11.00

MR DENTAL: IMPLANT DENTISTRY FREE OF ILLUSIONS

Dr. ANDREAS BARBETSEAS

SPONSORED LECTURE

11.00 -12.00

“NEW TECHNIQUES OF TISSUE REGENERATIVE WITH GROWTH FACTORS AND STEM CELLS: FROM INTRAORAL REGENERATION TO THE AESTHETIC MEDICINE“

Prof. dr. FRANCESCO INCHINGOLO, Prof. dr. GIANNA DIPALMA, ITALY

INVITED LECTURER

12.00 – 12.15.

BREAK

12.15.–13.15

INDIVIDUAL LINGUAL ORTHODONTICS AS THE FUTURE OF EVERYDAY PRACTICE.

**Dr. ANNE WASIEWICZ, POLAND –
ORTHODONTIC**

FDI LECTURER

13.15 –14.15

MANAGEMENT OF ASYMMETRIES AND CONDYLAR HYPERPLASIA

**Prof.dr IBRAHIM SINA UCKAN, TURKEY –
MAXILLOFACIAL SURGERY**

INVITED LECTURER

Session moderator: Prof. dr. Adem Salihagić

15.30 – 16.30

IVOCLAR VIVADENT: DIGITAL DENTISTRY – NEW MILESTONE IN DENTAL PROFESSION

Prof. dr. DANIMIR JEVREMOVIĆ

SPONSORED LECTURE

16.30 – 17.30

TOOTH AUTOTRANSPLANTATION IN CHILDREN AND ADOLESCENTS AN OVERVIEW

**Prof. dr. EBRU TIRALI, TURKEY –
PEDIATRIC DENTISTRY**

INVITED LECTURER

20.00

GALA DINNER

ORAL PRESENTATION

TIMETABLE OF THE ORAL PRESENTATIONS (OP)

THURSDAY 19.05.2022.

Lecture room 1

*Session moderators: Prof. dr Norina Forna,
Assoc. Prof. Dr. Mirjana Gojkov-Vukelić*

15.00 – 17.00

LECTURE

1. *Interdisciplinary management in complex systemic and oral rehabilitation*

Doriana Agop-Forna; Romania

Lecture

2. *Classic and modern in digitalisation of contemporary implantology*

Norin Forna; Romania

Lecture

ORAL PRESENTATION

1. *Guided implant therapy- tips and tricks*

Vancho Spirov; North Macedonia

OP-56

2. *Effect of implant length on trabecular structure of bone: fractal dimension study*

Abdulsamed Maden; Turkey

OP-15

3. *Classic and minimal invasive surgical implications in oral implant-prosthetic rehabilitation of edentulous patients*

Norina Forna; Romania

OP-30

DISCUSSION 10 min

19.00

OPENING CEREMONY, COCKTAIL

FRIDAY 20.05. 2022.

Lecture room 1

*Session moderator: Assoc. Prof. Dr. Paula Perlea,
Assist. Prof. Dr. Jelena Krunic*

10.00 – 12.30

ORAL PRESENTATION

Preventive and Pediatric Dentistry

1. *Caries status and treatment needs of individuals with special health care needs*
Lejla Selmanovic; Bosnia and Herzegovina OP-72
2. *Social and behavioral determinants for the early childhood caries in preschool children*
Emina Čengić; Bosnia and Herzegovina OP-54
3. *Attitude of teachers in preschool institutions of Bosnia and Herzegovina on early childhood caries*
Elma Katana; Bosnia and Herzegovina OP-12
4. *Prevalence of Taurodontism in Primary Molars of Children Aged 5-7 Years*
Yagmur Ates; Turkey OP-59
5. *The relationship between maxillary labial frenulum attachment types, periodontal health and dental caries in children*
Pinar Kinay Taran; Turkey OP-15
6. *Oral hygiene habits of 3-to-5 year old children and the relationship of caries*
Betul Karagur; Turkey OP-52

DISCUSSION 15 min.

7. *An Assessment of Oral Hygiene Practices of Adolescents and Their Parents*

Gokce Ozcan; Turkey

OP-76

8. *Evaluation of water absorption and water solubility of different current posterior composite resin materials*

Cigdem Kucukesmen; Turkey

OP-47

9. *Effectiveness of Self-Assembling Peptide (P11-4) in Enamel Demineralization: A Comprehensive Review*

Nilufer Ustun; Turkey

OP-69

10. *Success rate of MTA pulpotomies in immature permanent teeth: A retrospective study*

Merve Bayram; Turkey

OP-60

11. *Investigation of Reasons for Referral to the Emergency Clinic in the Department of Pediatric Dentistry*

Gulce Ozturk; Turkey

OP-36

DISCUSSION 15 min.

Lecture room 1

Session moderator: Prof. Ruzhdie Qafmolla,

Assist. Prof. Dr. Marija Obradović,

15.00 – 17.45

ORAL PRESENTATION

Restorative and Adhesive Dentistry, Dental Materials, Oral Medicine,
Periodontology

1. *Evaluation of enamel surface after orthodontic debonding and cleanup using different procedures: An in vitro study*
Ilijana Muratovska; North Macedonia OP-65
 2. *The Effect of Gastric Acid on The Surface Properties of Different Composites*
Cansu Dagdelen Ahisha; Turkey OP-20
 3. *An alternative of missing teeth-fiber reinforced composite bridges: 3 case reports*
Aysenur Altug Yildirim; Turkey OP-39
 4. *The color stability of temporary crown materials fabricated by three different methods*
Burcu Diker; Turkey OP-19
 5. *Effect of surface pre-treatments on microshear bond strength to PEEK*
Aliye Tugce Gurcan; Turkey OP-15
 6. *Oral manifestations of Covid-19: a literature review*
Alma Kantardžić; Bosnia and Herzegovina OP-33
 7. *Association between odontogenic conditions, nasal septum deviation and maxillary sinus mucosal thickening*
Kevser Dinc; Turkey OP-27
-

DISCUSSION 15 min

8. *Evaluation of the relationship between impacted mandibular third molar and mandibular canal with CBCT*

Elif Altun; Turkey

OP-28

9. *Evaluation of the anatomical relationship of maxillary posterior teeth with maxillary sinus with CBCT*

Duygu Kaymak; Turkey

OP-29

10. *Treatment of oral hyperpigmentations: two cases report*

Tunahan Mustafa Ceylan

OP-41

11. *Necrotizing ulcerative periodontitis: case report*

Busra Kasikoglu; Turkey

OP-43

12. *Effects of ozone on the palatal wound healing. A case report*

Merve Cingoz; Turkey

OP-42

13. *Effects of Lactobacillus reuteri lozenges in nonsurgical therapy of periodontitis*

Zerina Hadžić; Bosnia and Herzegovina

OP-38

14. *Brush biopsy can improve clinical oral examination in detection of oral mucosal lesions*

Uros Tomic; Serbia

OP-79

DISCUSSION 15 min

Lecture room 2

Session moderators: Prof. dr Ender Kazazoglu

Assoc. Prof. Dr. Amina Huseinbegović,

10.00 – 13.00

ORAL PRESENTATION

Prosthodontics

1. *Considerations on the abutment teeth preparations made by students for full ceramic crowns*

Dragos Ioan Virvescu;Romania OP-4

2. *Halitosis in complete denture wearers-a clinical study*

Cosmin Bida; Romania OP-5

3. *Knowledge and attitude toward oral hygiene practice among patients with dental bridges*

Zinovia Surlari;Romania OP-6

4. *Effect of Femtosecond Laser and Hydrofluoric Acid Etching on Resin Bond Strength to CAD/CAM Materials*

Munir Tolga Yucel;Turkey OP-21

5. *Evaluation of Translucency and Fracture Resistance of Different CAD/CAM Restorations*

Yener Okutan;Turkey OP-23

DISCUSSION 15 min

6. *Comparison Of Marginal Fit Between CAD-CAM and Hot-Press Celtra Duo Crowns*

Ferruh Semir Smail; Turkey OP-74

7. *Implant supported esthetic restorations with digital workflow: case series*

Sevda Miray Soydas Smail;Turkey OP-40

8. *Cellulose Fiber Addition to Experimental Glass Ionomer Cements: A Pilot Study*

Ece Ucar; Turkey OP-61

9. *Full-arch fixed overdenture in lower jaw – immediate solution for efficient mastication*

Aneta Mijoska, North Macedonia OP-48

10. *Prosthodontic rehabilitation in adult patient with anterior open bite-case report*

Gordana Kovacevska; North Macedonia OP-31

DISCUSSION 15 min

11. *Effect of hydrothermal aging on flexural strength of stabilized zirconia with different content of yttrium*

Ayşe Kocak; Turkey OP-46

12. *Effect of silane used with universal adhesives on the bond strength of aesthetic CAD/CAM materials*

Ramazan Bulut; Turkey OP-51

13. *Aesthetic restoration of endodontically treated teeth*

Sasho Jovanovski; North Macedonia OP-32

14. *The Effect of Er:Yag Laser on Shear Bond Strength Different Resin Cements*

Isil Turp; Turkey OP-64

15. *Evaluation between non metal posts and different types of cements*

Vesna Jurukovska Shotarovska; North Macedonia OP-34

DISCUSSION 15 min

Lecture room 2

*Session moderator: Assoc. Prof. Konstantinos Arapostathis,
Assoc. Prof. Dr. Mediha Selimović-Dragaš*

15.00 – 17.30

ORAL PRESENTATION

**Prosthodontics, Oral Surgery, Maxillofacial Surgery, Implantology,
Orofacial Trauma**

1. *Presence of generalized pain among TMD patients*

Irena Mladenovic; Bosnia and Herzegovina OP-53

2. *“Is there a correlation between tooth and face shape?” Dental technicians’ perspective: A pilot study*

Gulsum Ceylan; Turkey OP-49

3. *Assessment of occlusal force by occlusal contact surface area from cast images: A preliminary study*

Burcu Bal; Turkey OP-78

4. *Applicability of PRF and sticky bone in oral surgery*

Naida Hadziabdic; Bosnia and Herzegovina OP-8

5. *Categorization of impacted canines and premolar teeth in patients undergoing surgical procedures*

Eriselda Simoni; Albania OP-66

6. *Buccal fat pad flap for closure of oroantral communication*

Sonja Rogoleva Gjurovska; North Macedonia OP-57

DISCUSSION 15 min

7. *Effect of serratiopeptidase in controlling pain and trismus after third molars removal*

Salim Zukić; Bosnia and Herzegovina OP-75

8. *Marsupialization: 6 case series*

Asli Ataseven; Turkey OP-62

-
- 9. *Accuracy of brush biopsy method in oral malignancy detection***
Bruno Nikolovski; North Macedonia OP-17
- 10. *Piezosurgery in Orthognatic Surgery***
Renato Isufi;Albania OP-71
- 11. *The Impact of the COVID-19 Pandemic on Traumatic Dental Injuries***
Arif Bolaca; Turkey OP-50
-

DISCUSSION 15 min

SATURDAY 21.05. 2022.**Lecture room 1**

*Session moderator: Prof. dr Athanasios Pouloupoulos,
Assist. Prof. Dr. Radmila Arbutina,*

10.00 – 13.00

ORAL PRESENTATION**Orthodontics**

- 1. *Maxillary molar distalization with clear aligner system. A literature review***

Mehmet Ali Yavan; Turkey

OP-1

- 2. *Lower incisor position in skeletal class II malocclusion***

Ozge Uslu-Akcam; Turkey

OP-2

- 3. *Effect of stabilization splint therapy in patients with large centric relation - maximum intercuspation discrepancy***

Kenan Demirovic; Bosnia and Herzegovina

OP-3

- 4. *CBCT versus OPG in localizing impacted canines- when and why***

Jasna Petrovsk; North Macedonia

OP-10

- 5. *Evaluation of scattering radiation in brackets on periapical radiography***

Gulden Karabiber; Turkey

OP-13

DISCUSSION 15 min.

- 6. *Assessment of an Orthodontic Adhesive with Combined Primer and Composite***

Tugce Esra Gunes; Turkey

OP-14

- 7. *Comparison of the Effects of Tooth-Borne and Bone-Borne Rapid Palatal Expansion on the Nasal Tissue***

Mehmet Akin; Turkey

OP-67

8. *Validity and quality assessment of information about braces discomfort on the internet*

Merve Nur Eglenen; Turkey

OP-16

9. *Relationship between nasal morphology and the severity of obstructive sleep apnea: A retrospective study*

Gokcenur Gokce Kara; Turkey

OP-18

10. *Does rapid maxillary expansion affect the nasal septum deviation? A comprehensive literature review*

Sukriye Gizem Ceylan; Turkey

OP-44

DISCUSSION 15 min.

11. *Treatment of Maxillary Deficiency and Openbite Using Rapid Maxillary Expansion and Habit Breaker Combination Therapy*

Elif Ozyurek; Turkey

OP-22

12. *Evaluation of Molar Tooth Movements in Conventional-Hybrid Rapid Maxillary Expansion: A Splint Mouth Study*

Leyla Cime Akbaydogan; Turkey

OP-36

13. *Relationship between bruxism, tinnitus, TMD and dentofacial malocclusions-case report*

Daniela Srbinoska; North Macedonia

OP-45

14. *Properly planned extractions in orthodontics-case reports*

Vesna Trpevska; North Macedonia

OP-25

15. *Investigation of Changes in Lower Anterior Facial Soft Tissue in Orthodontic Treatments with Four Premolar or Two Premolar Extraction*

Taner Ozturk; Turkey

OP-35

DISCUSSION 15 min.

Lecture room 2

*Session moderator: Prof. dr Momir Carevic,
Assoc. Prof. Dr. Alma Konjhodzic*

11.00 -12.30

ORAL PRESENTATION

Endodontics, Cariesology, Community Dentistry

1. *Assessment of angiogenesis and inflammation intensity in dental pulp*
Irmirina Tahmiščija; Bosnia and Herzegovina OP-7
 2. *Apical sealing ability of different resin-based sealers*
Aida Džanković; Bosnia and Herzegovina OP-9
 3. *Effect in curved canal preparation of NiTi instruments with continuous versus reciprocation rotation*
Ema Krdžović; Serbia OP-77
 4. *Treatment Decisions of Deep Dentin Caries of Turkish Dentists*
Leyla Kerimova; Turkey OP-11
 5. *Antibacterial effects of ozone therapy in endodontic surgery: a pilot study*
Jelena Krunić; Bosnia and Herzegovina OP-37
 6. *The key role of dentists in the early detection and prevention of domestic violence*
Bojan Jelić; Bosnia and Herzegovina OP-80
-

DISCUSSION 15 min

BaSS AWARD SESION**Lecture room 3****SATURDAY 21.05. 2022.****09.00 – 11.00****Preventive Dentistry****1. *Oral care and pregnancy***

Natasa Pejic Barac;Serbia

OP-26

Orthodontic**2. *A Different Method to Accelerate Orthodontic Tooth Movement.
A Randomized Controlled Trial***

Nizami Hashimli;Turkey

OP-70

Endodontics**3. *Study of the flow rate of various endodontic sealers***

Veljko Ilić; Serbia

OP-55

| TIMETABLE OF THE POSTER PRESENTATIONS (OP) | | |
|--|--|-------|
| THURSDAY 19.05.2022. | | |
| Lecture room 2 | | |
| Session moderator: Assoc. Prof. Edit Xhajanka, Assoc. Prof. Dr. Sanja Hadžić | | |
| 15.00 – 17.00 | | |
| POSTER PRESENTATION | | |
| Orthodontics | | |
| 1. <i>Early treatment of Anterior open bite with LM activator</i> | | |
| Milka Bajic; Serbia | | PP-5 |
| 2. <i>Orthodontic importance of early loss of deciduous molars</i> | | |
| Jasminka Andjelic; Montenegro | | PP-6 |
| 3. <i>Smile changes in class II division 1 patients before and after orthodontic treatment</i> | | |
| Ajshe Rexhep; North Macedonia | | PP-75 |
| 4. <i>Therapy of facial asymmetry - case report</i> | | |
| Zeljko Milosavljević; Serbia | | PP-88 |
| 5. <i>Influence of orthodontic anomalies on psychosocial status</i> | | |
| Dalia Mudrić Đurković; Bosnia and Herzegovina | | PP-15 |
| 6. <i>Digital models vs plaster models: is there a difference?</i> | | |
| Velida Nukić; Bosnia and Herzegovina | | PP-18 |
| 7. <i>Frequency of maxillary canine impaction - a retrospective radiograph study</i> | | |
| Amra Muminović; Bosnia and Herzegovina | | PP-19 |
| DISCUSSION 15 min | | |

-
8. *Early treatment of a class III patient with chincup: a case report*
Gozde Gur; Turkey PP-93
9. *Assessment of periodontal health among patients referred to orthodontic examination*
Selma Kalender; Bosnia and Herzegovina PP-21
10. *KEP index assessment among patients referred to orthodontic examination*
Tarik Dujacic; Bosnia and Herzegovina PP-49
11. *Combined treatment of the patient with severe skeletal Class III- case report*
Jovan Marković; Serbia PP-43
12. *Comparison of orthopantomogram, lateral cephalogram and posteroanterior cephalogram for mandibular measurements*
Ferija Sali; North Macedonia PP-35
13. *Effects of Fiberotomy Application on Treatment During Orthodontic Treatment*
Ahmet Yagci; Turkey PP-42
14. *Frequency of primary and secondary narrowness, psychosocial aspects*
Asja Korjenic; Bosnia and Herzegovina PP-100
15. *Treatment of Unilateral Posterior Crossbite and Polydiastema by Fixed Appliances – A Case Report*
Ebru Topcuoglu; Turkey PP-89
-

DISCUSSION 15 min.

Lecture room 3

*Session moderator: Prof.dr Gurkan Gur,
Assoc. Prof. Dr. Alma Konjhodzic*

15.00 – 17.00

POSTER PRESENTATION

Endodontics, Gerodontology, Laser Dentistry, Other

1. *Relation among oral health and socio-demographic characteristics at geriatric denture wearers in Macedonia*
Natasha Stavreva; North Macedonia PP-101
 2. *Antibacterial efficiency of adjuvant photodynamic therapy and high-power diode laser in the treatment of young permanent teeth with chronic periapical periodontitis. A prospective comparative clinical study.*
Dragana Rakasevic; Serbia PP-80
 3. *Occupational health problems among dentists in Sarajevo Canton*
Dzejran Mocevic; Bosnia and Herzegovina PP-12
 4. *Direct pulp capping in mandibular molar in patient with hemophilia and Hepatitis C virus*
Bojan Dželetović; Serbia PP-54
 5. *Retreatment of maxillary canine with two root canals*
Minja Miličić Lazić; Serbia PP-83
 6. *Esthetic rehabilitation of maxillary central incisor with external apical root resorption*
Marijana Popović-Bajić; Serbia PP-68
 7. *Endodontic management of mandibular premolars with two root canals*
Manojlo Janković; Bosnia and Herzegovina PP-53
-

8. *Calcium silicate-based cement direct pulp capping: 5-year follow-up***Ivana Milanović; Bosnia and Herzegovina PP-73****9. *Symptomatic irreversible pulpitis in patient with multiple pulp stones*****Slobodan Jovanović; Serbia PP-72****10. *Root canal retreatment of mandibular wisdom tooth with pulp stone*****Neda Ninković; Serbia PP-51****11. *Removal of separated endodontic instruments*****Julijana Jovanović; Serbia PP-61**

DISCUSSION 20 min.

12. *Removal of separated endodontic instrument with the aid of hand file***Jelena Vučetić; Serbia PP-55****13. *Significance of irrigation in endodontic procedures*****Lamija Rustempašić; Bosnia and Herzegovina PP-95****14. *Endodontic retreatment of mandibular first molar with periapical lesion after cast post retrievals*****Danilo Pavlović; Serbia PP-59****15. *Non-surgical retreatment of mandibular second premolar after metal post and crown removal*****Ankica Miljković; Serbia PP-58****16. *Endodontic treatment of third maxillary molar with four canals*****Ivica Todorović; Serbia PP-56****17. *Endodontic treatment of maxillary canine with lateral periodontitis*****Lidija Praščević; Serbia PP-57**

18. *Fracture surface analysis of MTwo instruments***Milica Jovanović-Medojević; Serbia****PP-48****19. *Histomorphometric analysis of pulpal response to plasma rich fibrin in direct pulp capping procedure*****Jelena Neskovic; Serbia****PP-99****20. *The influence of access cavity design on premolar fracture resistance*****Tatjana Savić-Stanković; Serbia****PP-69****21. *Retrieval of pulp stone from second maxillary molar*****Vojislav Komlenić; Serbia****PP-81****22. *Examination of the radiopacity of different canal filling pastes*****Jovana Stasic; Serbia****PP-82**

DISCUSSION 20 min.

19.00**OPENING CEREMONY, COCKTAIL**

FRIDAY 20.05. 2022.**Lecture room 3**

*Session moderator: Prof. dr. Adem Salihagić,
Assoc. Prof. Iljiana Muratovska*

09.00 – 11.00

POSTER PRESENTATION

Preventive Dentistry, Pediatric Dentistry, Community Dentistry, Public Oral Health

1. *Knowledge of pediatricians in primary and secondary relevant to tertiary health institutions towards use of fluoride*
Zoran Mandinic ; Serbia PP-13
2. *Evaluation of factors affecting oral health in children and adolescents in Bosnia and Herzegovina*
Jasmin Habibović; Bosnia and Herzegovina PP-25
3. *Dental Sealant -Retention Assessment in in permanent molars*
Jetmire Alimani Jakupi; North Macedonia PP-60
4. *Oral hygiene - a risk factor for the development of oral diseases in young heroin addicts*
Nina Dimitrijević Jovanović; Serbia PP-59
5. *Assessment of the state of the parodontium in children 12 years in Podgorica*
Mirjana Djurickovic; Montenegro PP-2
6. *Dental health care for children with special needs*
Danijela Subotic; Montenegro PP-3
7. *Oral Rehabilitation of a Pediatric Patient with Waardenburg Syndrome: A Rare Case Report*
Meltem Karahan; Turkey PP-62

8. *Relationship between asthma and gingival health*

Bojana Davidović; Bosnia and Herzegovina PP-77

9. *Moderate mental retardation-dental practice in general anesthesia*

Jovana Hrisa Samardžija; Bosnia and Herzegovina PP-78

10. *Oral hygiene education of visually impaired children*

Ioanna Arvanitopoulou; Greece PP-16

11. *Usage of bioactive cement in vital pulp cell simulation-report of two cases*

Elena Radeska; North Macedonia PP-65

12. *Oral manifestations in children with COVID-19 disease*

Andjelka Mladenovic; Serbia PP-28

DISCUSSION 20 min.

13. *Treatment of crown fracture complications in a cardiovascular patient – a case report*

Atina Bekan, Serbia PP-29

14. *Influence of redundant teeth in the occurrence of orthodontic anomalies - A case report*

Jovana Prijic; Serbia PP-30

15. *Relationship between the calcification degrees of second premolar and other teeth in preschool children*

Meltem Bakkal; Turkey PP-70

16. *Regenerative Endodontic Treatment Approach in a Pediatric Patient with Regional Odontodysplasia: A Case Report*

Banu Cicek Tez; Turkey PP-63

17. *Endodontic therapy of external root resorption of lateral maxillary incisor as a complication of trauma*

Tanja Negovanovic; Serbia PP-96

| | |
|--|--------------|
| 18. <i>The effectiveness and importance of topical fluoridation in stopping early childhood caries- case report</i> | |
| Dženana Ždralović Karabeg; Bosnia and Herzegovina | PP-97 |

| | |
|---|--------------|
| 19. <i>Dental care during sars – Cov-19 crisis</i> | |
| Verica Toneva Stojmenova; North Macedonia | PP-67 |

| | |
|--|--------------|
| 20. <i>Barriers for dental health</i> | |
| Krasimir Tsvetanov Tsokov; Bulgaria | PP-79 |

| | |
|---|--------------|
| 21. <i>Vision of the present and future of geriatric dentistry</i> | |
| Adi Salihagic; Bosnia and Herzegovina | PP-74 |

| | |
|--|--------------|
| 22. <i>Tooth loss as an oral health indicator in adult population of Bosnia and Herzegovina</i> | |
| Lajla Hasić-Branković; Bosnia and Herzegovina | PP-34 |

| | |
|--|--------------|
| 23. <i>Oral health analysis of a six-year-old children in the area of Živinice town</i> | |
| Belkisa Hodžić; Bosnia and Herzegovina | PP-47 |

Lecture room 3

*Session moderator: Prof.dr Dejan Markovic,
assist. prof. dr. Marija Obradović*

11.30 – 13.30

POSTER PRESENTATION

Restorative and Adhesive Dentistry, Dental Materials, Oral Pathology/Oral
Medicine, Oral Diagnosis/Oral Radiology, Periodontology

1. *Bond strength of the bulk fill composite materials*
Emilija Kostadinovska; North Macedonia PP-91
 2. *Color Stability Assessment Of Two Methacrylate-Based Resin Composites In Different Beverages*
Samra Korać; Bosnia and Herzegovina PP-92
 3. *Non-vital discolored teeth bleaching using the walking bleach technique :a case report*
Gurcag Gur; Turkey PP-94
 4. *Vital teeth bleaching treatments with in-office bleaching : the case reports*
Gurkan Gur; Turkey PP-20
 5. *Aesthetic Rehabilitation of the Anterior Region with Silicon Key Technique: A Case Report*
Savas Sagmak; Turkey PP-23
 6. *Smoking habits amongst students*
Emina Hafizović; Bosnia and Herzegovina PP-98
 7. *Modern esthetic restorative procedures for the restoration of hard tooth tissues*
Natasha Longurova; North Macedonia PP-66
 8. *Biological and physicochemical properties of clinically commonly used calcium silicate cement*
Dragan Ilić; Serbia PP-85
-

9. *Apytherapy as an additional treatment of infection corners of the lips*
Snezana Radisic; Serbia PP-90
10. *The effects of bad habits on colonization Candida albicans in the oral cavity of students of the Faculty of Dentistry in Sarajevo*
Arma Muharemovic; Bosnia and Herzegovina PP-9
-

BREAK

11. *Common oral mucosa changes in patients with diabetes mellitus Type 1 and 2*
Mia Hodžić; Bosnia and Herzegovina PP-17
12. *Association of HPV types of genital lesions and oral lesions*
Mirjana Popovska; North Macedonia PP-52
13. *Radiological measurements of teeth - a comparison of two different software programs*
Jasmina Mlačo Durek; Bosnia and Herzegovina PP-8
14. *Evaluation of clinical performance of UniViSS in occlusal caries detection*
Dario Puljić; Bosnia and Herzegovina PP-26
15. *Calculation of pulp chamber volumes on CBCT image using ITK SNAP software*
Meris Jušić; Bosnia and Herzegovina PP-41
16. *Potential of salivary 8-hydroxydeoxyguanosine (8-OHdG) levels in clinical evaluation of chronic periodontal disease severity*
Aida Hafizovic; Bosnia and Herzegovina PP-31
17. *Effective treatment procedure for complete root coverage in localized gingival recession-a case report*
Ljiljana Marković; Serbia PP-84
-

18. *Dental implantation and prosthetic rehabilitation after horizontal bone augmentation in the aesthetic region: case report*

Sena Balkiz; Turkey

PP-46

19. *The efficiency of diode laser in non-surgical periodontal therapy*

Indira Mujic Jahic; Bosnia and Herzegovina

PP-1

19. *Bone regeneration utilizing a resorptive hydroxyapatite-based bone substitute coated with poly-lactide-co-glycolide and poly-ethylene-imine for bone skull defect*

Sanja Milutinović-Smiljanić; Serbia

PP-103

Lecture room 3

*Session moderator: Assoc. prof. dr. Zoran Vlahovic,
Assist. Prof. Dr. Jelena Krunic*

14.30 – 16.00

POSTER PRESENTATION

Prosthodontics, Oral Surgery, Oral Implantology

1. *Occlusal scheme choices in implant dentistry*
Daniela Djurovic Koprivica; Serbia PP-4
 2. *Reconstruction of pink and white esthetics in maxillary incisors with Zirconia-Ceramic Restorations*
Marjan Petkov; North Macedonia PP-64
 3. *Pre-prosthetic orthodontic treatment in deep bite cases*
Dragan Petrovski; North Macedonia PP-10
 4. *Rehabilitation of Two Patients with Toronto Hybrid Overdenture Prosthesis: Case Series*
Ozge Doganay; Turkey PP-87
 5. *The correlation between bruxism and mental disorders*
Arion Xhemali; Albania PP-11
 6. *Orthodontic – prosthodontic therapy in cleft lip and palate patients – case reports*
Danka Milosavljević; Serbia PP-76
 7. *An Evaluation of Factors Affecting Preference of Dental Implant Treatment*
Filiz Yagci; Turkey PP-14
 8. *Long-term temporary, cantilevered adhesive restoration: A clinical report*
Bahar Elter Tola; Turkey PP-22
-

9. *The comparison between the conventional complete removable dentures and hollow complete dentures*
Edit Xhajanka; Albania PP-27
 10. *Dentures in mandibula on locator*
Dea Krstičević; Bosnia and Herzegovina PP-32
 11. *Full mouth rehabilitation with implants*
Miroslav Lucic; Bosnia and Herzegovina PP-33
 12. *Effect of denture cleansers on color stability of polyetherketoneketone/composite structure*
Ozgun Yusuf Ozyilmaz; Turkey PP-86
-

BREAK

13. *Comparison Of The Fracture Strengths Of Laser Sintered Framework Designs For Metal-Ceramic Restorations*
Ozlem Kara; Turkey PP-71
 14. *Influence of Prosthetic Therapy on Esthetics and Oral Health-Related Quality of Life*
Selma Alić-Drina; Bosnia and Herzegovina PP-37
 15. *Rehabilitation of maxillary anterior defect with implant supported zirconia Toronto bridge: case report*
Hasan Can Boran; Turkey PP-45
 16. *Zirconia in everyday clinical practice*
Marija Simoncheska; North Macedonia PP-38
 17. *New zirconia post as a aesthetic option for restoration of ceramic crowns*
Dominika Slavkoska; North Macedonia PP-39
 18. *Hypohidrotic ectodermal dysplasia: prosthodontic treatment of three brothers*
Emilija Bajraktarova Valjakova; North Macedonia PP-40
-

-
19. *Prevalence of Torus Mandibularis in Young Healthy Dentate Adults*
Dzenad Ganjola, Montenegro PP-102
20. *Atypical plasma cells in periapical inflammatory lesion:
an unusual case report*
Ajla Selimović, Bosnia and Herzegovi PP-44
21. *Dentigerous cyst associated with endodontically treated primary
predecessor: A rare case report*
Amila Balić, Bosnia and Herzegovina PP-24
22. *CBCT analysis of maxillary sinus (anatomy and pathology)*
Azra Imamović, Bosnia and Herzegovina PP-104
23. *Impacted inverted mesiodens-case report*
Jelena Elez, Bosnia and Herzegovina PP-50
24. *Prevalence of peri-implant diseases*
Kiro Papakoca, North Macedonia PP-7
-

INVITED SPEAKERS

Dr. Anna Wasiewicz DMD, MSc, PhD

Received her dental education at the Medical University of Warsaw in 2007. Since 2007 she has been working at private practices in Warsaw limited to orthodontics and has been using lingual orthodontics since 2008. In addition to the clinical work she has been involved in research and teaching at the Department of Orthodontics at the Medical University of Warsaw since 2010. Her research interests include facial and dental aesthetics, lingual orthodontic treatment, TADs and interdisciplinary approach in adult patients. She has received scientific awards for some of her studies, including those given by the Rector of the Medical University of Warsaw in 2005, 2015 and 2018. Dr. Anna Wasiewicz defended the PhD degree in 2015. In 2015 she also completed the International Master's of Science course in Lingual Orthodontics at the Federico II University of Naples, Italy. Dr. Anna Wasiewicz is a member of Polish Orthodontic Society, European Orthodontic Society, American Association of Orthodontists, Italian Orthodontic Society and the Orthodontic Section of the Polish Dental Society.

**INDIVIDUAL LINGUAL ORTHODONTICS AS THE FUTURE OF EVERYDAY PRACTICE.**

Author: Anna Wasiewicz DMD, MSc, PhD

Department of Orthodontics, Medical University of Warsaw

Aesthetics seem to be one of the major goals not only in dentistry but also in contemporary orthodontics. Nowadays more and more patients seek aesthetic orthodontic treatment such as tooth-toned labial appliances, aligners or lingual brackets. In order to achieve patient's satisfaction during orthodontic treatment an orthodontist should consider patient's opinion not only regarding the treatment plan itself but also the methods of the treatment. Lingual orthodontic appliances are claimed to be the most aesthetic of all orthodontic techniques for it is completely invisible and give both the patient and the orthodontist opportunities to observe and discuss all teeth movements throughout the treatment. The aim of the study is to present individual lingual orthodontic appliances as a method of treatment in everyday practice.

Material and methods: Research materials were obtained from orthodontic patients aged from 13 to 45 years who were undergoing treatment with completely customised lingual appliances. Some of the lingual orthodontic procedures, such

as bonding and debonding, impacted teeth alignment, gaining space and others are to be presented as an everyday protocol increasing patient's comfort and reducing chair time. On the basis of patients' opinions and clinical observations the advantages and disadvantages of lingual techniques will be examined and summarised. Conclusions: An orthodontic treatment has a particular impact on patients' satisfaction with their smile, therefore invisible techniques should be presented and used to improve not only aesthetics but also patient's confidence with their smile. When planning an invisible orthodontic treatment in both growing and adult patients, an orthodontist should consider the use of lingual appliances as a method of choice. The above mentioned may allow the patient to be satisfied with the treatment itself, but, above all, with its aesthetics.

PD Dr. med. dent. Daniel Hellmann

Dentist / Master dental technician
Specialist for functional diagnostics and therapy (DGD-FT)

Director of the Dental Academy for Continuing Professional Development Karlsruhe, Karlsruhe, Germany

Department of Prosthodontics, University of Würzburg, Würzburg, Germany

**Professional career**

- 2018** Venia Legendi by the Medical Faculty the University of Würzburg
- 2017** Venia Legendi by the Medical Faculty of the University of Heidelberg
- 2014** Specialist for functional diagnostics and therapy (DGFDT)
- 2011** Baden-Württemberg Certificate for University Didactics
- 2011** Doctorate (Dr. med. dent.) by the Medical Faculty of the University of Heidelberg
- 2008** License to practice medicine
- 2008** Dental examination
- 2002-2008** Study of dentistry at the University of Düsseldorf
- 2003** Examination Master of dental technician

Professional positions

- Since 2020** Director of the Dental Academy for Continuing Professional Development Karlsruhe
- 2017 - 2020** Senior physician at the Department of Prosthodontics, University of Würzburg
- 2012 - 2016** Practice in the team of dentists in Wi.Z, Aalen
- 2009 - 2016** Research associate at the University Hospital Heidelberg
- 2008 - 2009** Research associate at the University Hospital Düsseldorf

FUNCTIONAL REHABILITATION - WHAT WE SHOULD KNOW ABOUT THE TEMPOROMANDIBULAR SYSTEM

It must be emphasized that the occlusal concepts commonly used in dentistry and dental technology are merely creationist notions of ideal and uniform contact patterns. But it is not the perfection of the implementation of these concepts that is the key to successful dental rehabilitation, but the enormous adaptability of the temporomandibular system, which is in principle characterized by a great interindividual variability.

Not the doctrines of gnathology, but the findings of oral physiology should provide inspiration for modern concepts in functional rehabilitation.

Prof. Dr. R. Ebru Tirali, DDS, PhD

Prof. Dr. Ebru Tirali received her DDS and PhD degree from Gazi University Faculty of Dentistry. Since 2008, she has been continuing her academic life, undergraduate and graduate education, and teaching activities as a full-time faculty member at Baskent University Faculty of Dentistry, Department of Pediatric Dentistry and

since 2017 she has been working as the Head of Department of Pediatric Dentistry. She is the president of the Turkish Society of Pediatric Dentistry Ankara Branch. She has authored numerous national and international scientific articles and a book section. Her clinical and research interests include pediatric endodontics, special needs patients, pediatric esthetic dentistry.

**TOOTH AUTOTRANSPLANTATION IN CHILDREN AND ADOLESCENTS**

When tooth loss occurs in children and adolescents, it is important to replace the missing tooth/teeth or secure the space in the dental arch for future implant therapy to prevent aesthetic, psychological, social, and functional problems. Autotransplantations, however, have not been commonly used by most centers to date, even though they offer an interesting alternative treatment option, especially in younger growing children. Autotransplantation is the surgical repositioning of a tooth within the same patient. This lecture will review existing evidence from prospective clinical studies and examine in an evidence-based manner the risk factors influencing the outcome and adverse effects of tooth autotransplantation in growing individuals and discuss about new approaches for this treatment.

Prof. Francesco Inchingolo

Curriculum: Graduated in Medicine and specialized in Hygiene and Preventive Medicine, Maxillofacial Surgery, Odontostomatology and Experimental Medicine at the National Research Council (CNR). Associate Professor in Dentistry at the Faculty of Medicine, Director of the School of Specialization in Orthodontics, Lecturer in Oral Surgery and Maxillofacial Surgery in the Specialized Courses of Maxillofacial Surgery, Oral Surgery and Orthodontics at the University of Bari "Aldo Moro" and President of the International Masters in Advanced Oral Surgery and Implant Surgery and Aesthetic Medicine at the same University. Eligibility for the ASN as Professor in the disciplinary field MED/28 and MED/29. Author of more than 210 scientific articles on international indexed journals (H-index: 32, 3227 citations).

**Dott.ssa Gianna Dipalma**

Curriculum: Graduated with honors in Dentistry and Dental Prosthetics and in Medicine and Surgery at University of Bari. PhD in Stomatognathodontics International Multicentric PhD in Clinical Dentistry at University of Bari. Specialized in Implant Prosthetics I and II level at University of Bari. Subject matter expert for the disciplines of the scientific-disciplinary sector MED/28 Malattie Odontostomatologiche Uniba. Achieved national qualification ASN of Miur second band SSD MED/28 since December 2014. Lecturer in the Master of I and II level in Implantoprosthesis and Oral Surgery and in the Degree Course in Dental Hygiene at Uniba. Visiting Professor at several foreign universities. Author of 130 scientific articles on indexed journals (H-Index: 23, 1600 citations). Intern at the School of Oral Surgery of the University of Bari "Aldo Moro".

**Title lecture:**

“NEW TECHNIQUES OF TISSUE REGENERATIVE WITH GROWTH FACTORS AND STEM CELLS: FROM INTRAORAL REGENERATION TO THE AESTHETIC MEDICINE”

Abstract: The clinical and functional properties of autologous stem cells.

Franz Sebastian Schwindling**Title: “Radiation-free and radiation-reduced imaging in oral implantology”****CV:**

Sebastian Schwindling studied dentistry at the Albert Ludwig University of Freiburg from 2006 to 2012. He received his Dr. med. dent. there in 2013. Since 2012 he has been a research associate at the Department for Prosthetic Dentistry, Heidelberg University Hospital. Dr. Schwindling is a member of the German Society for Dental, Oral and Maxillofacial Medicine (DGZMK) and the German Society for Prosthetic Dentistry and Biomaterials (DGPro) and since 2016 a DGPro-Specialist for Prosthetic Dentistry.

Sina Uckan Dean and Professor at Oral and Maxillofacial Surgery***Istanbul Medipol University***

Sina Uckan completed his doctorate (specialization) in Oral and Maxillofacial Surgery at Hacettepe University Faculty of Dentistry. Uçkan, who later worked as a lecturer at Selçuk and Başkent Universities, worked at Mount Sinai Hospital in New York in 1994 and 1996. He is currently a faculty member at Istanbul Medipol University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery. His main interests are dentofacial deformities and their treatments, trauma, reconstruction and clinical-laboratory research.

**Management of Asymmetries and Condylar Hyperplasia**

If maxillofacial deformity includes horizontal deficiency asymmetry occurs. Correction of asymmetry is the most challenging part of the surgery.

Condylar hyperplasia is the most commonly seen postnatal growth anomaly of the TMJ and it mostly occurs between the ages of 10-30. The main clinical components are prominence in the lower 1/3 facial area and deviation of the chin to the contralateral side. Management includes postponing the surgery, orthognathic surgery before or after condylar reduction, Condylar Reduction with orthognathic surgery, Low or high condylectomy, Orthognathic surgery, Unilateral Wing Osteotomy or vertical corpus reduction.

These treatment options of condylar hyperplasia and asymmetries will be explained by case examples.

Prof. Dr. Michael Korsch / Dentist specializing in Oral Surgery

1976 – born in Mannheim, Germany

1998 – 2003 student of dentistry at the University of Heidelberg

2003 – license to practice dentistry

2004 – doctorate Dr. med. dent. at the University of Heidelberg

2004-2005 – assistant dentist in a private dental practice

2005-2008 – continuing education for specialization in oral

surgery at the University of Zurich and at two private practices for den-
to-maxillofacial surgery 2007 – focusing on periodontology and oral im-
plantology (DGI - German Association of Oral Implantology)

2008 – working as dentist specializing in oral surgery

2008 – joining the Dental Academy for Continuing Professional Development,
Karlsruhe, Germany

2009 – chief dentist and director of oral surgery of the Dental Academy for
Continuing Professional Development, Karlsruhe

2009 – graduation as Master of Arts "Integrated Practice in Dentistry" at the Dental
Academy for Continuing Professional Development, Karlsruhe, and Ot-
to-von-Guericke-University Magdeburg

2011 – obtaining the teaching qualification for oral surgery

2011 – teaching assignment at the University of the Saarland

2013 – Dentsply PEERS Award of Sponsorship

2016 – postdoctoral qualification (habilitation) at the University of Homburg

2016 – opening the Center for Oral Implantology and Oral Surgery in Heidelberg

2021 – Professorship, University of Homburg

Title:

Autologous dentin: The gold standard in augmentation materials?

RADE D. PARAVINA, DDS, MS, PHD

Rade D. Paravina is a tenured professor in the Department of Restorative Dentistry and Prosthodontics, University of Texas School of Dentistry at Houston. He serves as Director of the John M. Powers, PhD, Houston Center for Biomaterials and Biomimetics (HCBB) and holds the Ralph C. Cooley, DDS, Distinguished Professorship in Biomaterials, an endowment created by world-renowned heart surgeon Denton A. Cooley, MD.



Dr. Paravina has authored/co-edited three books, 15 book chapters, 270+ peer-reviewed publications (papers and abstracts), and has designed/developed several dental products and tests. His work has been cited 3100+ times on Scopus (h-index 30) and 6800+ times on Google Scholar (h-index 41).

Dr. Paravina is founder and past president of the Society for Color and Appearance in Dentistry (SCAD). He is a recipient of the 2011 E. B. Clark Award, the SCAD Award for Lifetime Achievement, and the 2014 Jerome M. and Dorothy Schweitzer Research Award of the Greater New York Academy of Prosthodontics. He is Director in the Executive Council of the American Academy of Esthetic Dentistry (AAED), and fellow of AAED, SCAD and AADR. He serves as Editor-in-Chief of the Journal of Esthetic and Restorative Dentistry (Impact Factor 2.84) and editorial board member for the Journal of Dentistry, Journal of Prosthetic Dentistry, International Journal of Prosthodontics, and the American Journal of Dentistry.

**COLOR IN ESTHETICS
DECODED****Lecture Description**

Color and appearance are very pertinent to dental practice for the esthetic outcome and the natural replication of biomimetic restorations. This lecture will provide an overview of the most recent scientific developments combined with their clinical application. Examples and practical suggestions associated with enhanced esthetics in both the dental office and the dental laboratory will be covered. This includes, but is not limited to, the nature of color, evidence-based interpretation of clinical results, materials selection and quality control, computer modelling for "white", "pink", and relevance of translucency. You will learn traditional and advanced approaches aimed to address drawbacks and provoke a paradigm shift.

Objectives

1. Understand the nature of color appearance and visual thresholds in dentistry, and their clinical relevance through the day-to-day dentistry point of view
2. Review and contrast traditional (empirical) and contemporary (evidence-based) approach to tooth color matching, communication and reproduction
3. Compare the "pink" related issues and solutions

Dr. Sorin Uram-Tuculescu

Dr. Sorin Uram-Tuculescu earned a DDS Degree from the University of North Carolina at Chapel Hill (2010), and a Master of Science in Prosthodontics from the same institution (2008). While in North Carolina, he was a recipient of the G. Randolph and Ann Babcock Fellowship (2007) and the Freedland Advanced Dental Education Fellowship (2006), both awards presented by the Dental Foundation of North Carolina.



He also earned a DMD Degree from the University of Medicine and Pharmacy “V. Babes”, School of Dental Medicine from Timisoara, Romania (1991). Dr. Uram-Tuculescu completed a Certificate program of Advanced Education in General Dentistry (1995) and a PhD in Prosthodontics (2000) at the same institution. During the clinical part of thesis preparation, Dr. Uram’s team introduced the use of titanium for dental prosthetics in Romania (1997).

His passion for education was rewarded with an academic career in Romania, where he reached the rank of Associate Professor in the Department of Prosthodontics at his alma mater school (2002).

After complementing his dental education in the United States, Dr. Uram re-joined academia, serving as full time faculty at the VCU School of Dentistry for the last 12 years. He is currently a Professor and directs three courses, serves as lecturer and instructor in four other courses, and is heavily involved in clinical teaching. While at VCU, he was presented the Outstanding Prosthodontic Faculty Award by the graduating Class of 2015. More recently, he received the Dean’s Faculty Excellence Award for Clinical Teaching and the Dean’s Faculty Excellence Award for Humanism. Dr. Uram continued to be a scholar with many interests: implant restorations, masticatory muscle physiology, digital dentistry and patient management. Dr. Uram has completed over 30 peer reviewed journal articles and books/monographs, and over 50 abstracts and presentations. He lectures in the Commonwealth of Virginia, nationally and internationally on various dental topics.

Dr. Sorin Uram-Tuculescu served on numerous Dental School Committees (Admissions, Academic Performance, Promotion and Tenure and Equity and Diversity). He also served as President of the Virginia Section of the American College of Prosthodontists (2017-2019) and as President of the Kappa Chapter of Omicron Kappa Upsilon National Honor Dental Society (2018-2019). Dr. Uram has been listed in topDENTISTS since 2018.

Title:

"Treatment of edentulism - how much better off are we today?"

BaSS SPEAKERS

PERSONAL INFORMATION



Anis Thodhorjani

📍 RR. Siri Kodra, 1001 Tirana (Albania)

📞 00355693954015

✉ anis_thodhorjani@yahoo.com

WORK EXPERIENCE

10/2018–Present

Assistant lecturer

Faculty of Dental Medicine
Rr. e Dibres, 1001 Tirana (Albania)
www.fmd.edu.al

02/2018–Present

Director

University Dental Clinic
RR. e Dibres, 1001 Tirana (Albania)
www.ksu.al

10/2017–02/2018

Lecturer

Albanian University
Zogu I Boulevard, 1001 Tirana (Albania)
www.albanianuniversity.edu.al
Oral Radiology Department

10/2016–10/2017

Assistant lecturer

Albanian University
Zogu I Boulevard, 1001 Tirana (Albania)
www.albanianuniversity.edu.al
Oral Radiology Department

09/2013–10/2016

Assistant lecturer

Albanian University
Zogu I Boulevard, 1001 Tirana (Albania)
www.albanianuniversity.edu.al
Oral Surgery Department

EDUCATION AND TRAINING

2018–2019

Second Level Master

Tirana University, Tirana (Albania)
Hospital Management

12/2013

License In Dentistry

2008–2013

MSc Dentistry

Albanian University

Title of Presentation: The prognosis of pulpe vitality in abutment teeth.

Milan Martinovic

Born on 20.06.1987 in Nikšić, Montenegro. Graduated the elementary school “Luka Simonović” with the highest honors, rewarded with the “Luča” diploma. Attended and graduated high school at the Gymnasium “Stojan Cerović” in Nikšić, the course of Science and Mathematics, also with highest honors and the title of “Luča” diploma. Enrolled the Stomatology program at the Faculty of Medicine, Podgorica in 2006 and graduated in 2011 with the average grade of 9.2.



Executed internship at the Dental office “Alfa DENT”. Worked at the Dental office “Dr Kostić” for one year, and at the dental office “Alf DENT” for four years.

Currently working at the Dental Clinic “V DENTAL CENTAR”.

Employed at the Stomatology program at the Medical Faculty in Podgorica as an assistant on the course of Dental Diseases – Preclinics.

PhD student at the Faculty of Medicine, Podgorica.

Holding numerous certificates from various workshops and education, attended with the goal of excelling in knowledge and skills.

iTop certified instructor (Gold Level)

Title:

The State of Oral Health in Children With Increased Body Weight In Montenegro

Pantelis Kouros DDS, MSc, PhD

Pantelis Kouros DDS, MSc, PhD

Assistant Professor

kourosp@dent.auth.gr

+306946957226

Thessaloniki, Greece

Aristotle University of Thessaloniki

School of Dentistry

Operative Dentistry department

www.dent.auth.gr

Research Interest: Composites, Bonding, Shade Matching, Aesthetic Dentistry, Minimal Intervention.

**Short Curriculum Vitae:**

Currently full-time As. Prof of Operative Dentistry of Dental School of Aristotle University of Thessaloniki. Also supervising and grades MSc-theses for King's College London, Aesthetic Dentistry. Owning and running a private dental clinic since 1998. Focused on hard tissues bonded restorations, biomimetic and minimally interventive dentistry, optical properties of dental tissues and restorative materials, and digitalization on diagnosis and treatment.

Graduated in 1997 from dental school of Thessaloniki, and from post-graduate program of Operative Dentistry dpt. in 2001. Supported his PhD thesis on dental adhesives biocompatibility in 2011 and graded with distinction. Followed MSc program of Aesthetic Dentistry at King's College London from 2016 to 2019 and his MSc thesis on digital calculation of composite resins optical properties graded with distinction and was the basis on development of a software application for mobile devices for digital shade-matching for anterior restorations (Dental Shade Navigator).

He is a member of editorial boards of scientific dental journals, and also a lecturer on materials and techniques in learning courses, congresses etc.

Title:

Digital colorimetry Vs Clinical reality: Myths and Facts

Prof. Dr. Paula Perlea

Full Professor Department of Endodontics, Faculty of Dentistry, Carol Davila University, Bucharest, Dean Emeritus, President of the Romanian Society of Stomatology (founded 1923), President of the Romanian Association of Endodontology, Executive Vice-President of the Romanian Medical Association (founded 1857)



Prof Dr Paula Perlea graduated in 1993 as a valedictorian at the Carol Davila University of Medicine and Pharmacy, Faculty of Dentistry, Bucharest, Romania, received her PhD 1993-1997 (magna cum laude) at the Ruprecht Karl University, completed her postgraduate studies in endodontics at Case Western Reserve University Cleveland, Ohio, her specialization in Maxillo-Facial Radio diagnosis and Specialization in Endodontics and General Dentistry in Bucharest and obtained her habilitation at Carol Davila University. She published at the time 158 research articles as main or co-author, 2 books as coauthor, 3 books as main author and held over 150 presentations and conferences in National and International Congresses, also organizing more than 25 congresses. Prof Perlea is on 4 editorial Board positions in national and international journals of dental medicine, being also the Executive Editor of the Romanian Journal of Stomatology.

She is member of the MLSC of the FDI – responsible for Europe, FDI National Liaison Officer, BASS councilor, member of the GA of ERO (European Regional Organization), of the European Society of Endodontology (ESE).

Title:

Challenges in performing endodontic treatment in elderly patients

Prof. Dr. Kenan Ferati, DDS, MS

Personal profile:

Specialist of maxillofacial surgery.

Education:

Faculty of dentistry at the Stomatology University of Sarajevo and University of dentistry “St. Cyril and Methodius” Skopje,

Doctoral studies University of United Nations Belgrade

Specialization of maxillofacial surgery at Central Clinical University of Skopje

Professional training about “Bone deformity and their treatment” at University of Hannover

Professional training at University of Basel and Straumman institute about Implantology



Working experience:

Founder of “Apolon” Dental Polyclinic in Tetovo

2010 – 2014 assistant of maxillofacial surgery and implantology at State University of Tetovo

From 2014 docent and lecturer in Maxillofacial surgery and Implantology in State University of Tetovo

2014 – 2016 Vice Dean for Education in Faculty of Medical Science and Head of study program Stomatology.

Actual :

President of Albanian Stomatological society of Macedonia ,

Vice- President of Dental Chamber of Macedonia .

Member of EAOCMFS

I.T.I .Team (International Team of Impantology)

Educator in Straumann Team, Member of Albanian Dental Society

Member of Maxillofacial surgeons of Macedonia,

Member of Impantologs of Macedonia.

Member of commission at the Dentistry Chamber of Macedonia

Member of executive board at Medical Simulation Center of Macedonia

Managing Challenges During Maxillary Sinus Elevation
Prof. Dr. Kenan Ferati Prof.Dr.Arbëresha Bexheti-Ferati**Abstract**

Maxillary sinus floor elevation is usually used in cases where the resorption of the alveolar ridge has reached insufficient height of the bone for the placement of dental implants. for placement of implants in this area. Although this procedure has a high success rate, it can present surgical problems. A description of the anatomy of the maxillary sinuses of the lateral wall and augmentation techniques leads to a discussion of the various challenges and complications that may arise.

In dentistry, replacing single teeth with implants is a common procedure in the population.

Dental implants are very predictable and can often be placed without the need for prior surgical procedures, however in a number of situations, bone is insufficient for implant placement. The posterior maxilla is often deficient in bone in the vertical dimension after extraction of the premolars and molars for and the proximity of the roots to the maxillary sinus.

Zoran Vulicevic

Zoran R. Vulićević, redovni profesor i upravnik Klinike za dečju i preventivnu stomatologiju Stomatološkog fakulteta, Univerziteta u Beogradu, šef predmeta Dečja stomatologija. Vanredni član Akademije medicinskih nauka Srpskog lekarskog društva. Autor i koautor preko petnaest domaćih i međunarodnih udžbenika i preko dve stotine radova i predavanja iz oblasti stomatoloških materijala, dečje, estetske i rekonstruktivne stomatologije.

**Oro-surgical interventions in children and adolescence - yesterday, today and tomorrow**

Zoran R. Vulicevic¹, Dusan Kosanovic¹, Boris Simoncic¹²

A child is a human being between the stages of birth and the beginning of puberty, generally nowadays regarded as a period between 0 and 10 years of age. Oro-surgical treatments in this period usually is focused on removal of decayed deciduous teeth, frenectomies and removal of supernumerary teeth which can inhibit development of permanent dentition.

Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19. It is a unique stage of human development and an important time for laying the foundations of good health. Adolescents experience rapid physical, cognitive and psychosocial growth. In this period, our oro-surgical interventions are aimed at preserving alveolar bone and soft tissues, in order to preserve proper growth patterns and oro-facial development. Most common intervention in this period of development are : extractions of permanent teeth due to inability to perform adequate endodontic treatment, extractions of wisdom teeth, and extractions of first premolars due to crowding or other orthodontic indications. Soft tissue surgeries are also performed, such as removal of fibrous plica and frenulums, as well as gingival recession treatments. Also, in this age, it is sometimes necessary to surgically lay the proper foundation in our patients for future orthodontical or prosthetic treatments that they may need.

New surgical techniques and technologies are being developed in order to preserve alveolar bone after teeth extractions, tumors or cysts of dental origin. Progress in stem cells development and their application in dentistry and oral surgery has enabled us to help our adolescent patients, and guide them through necessary oro-surgical procedures with maximum protection of their alveolar bone.

This lecture will present the theory behind specific oro surgical options for threatment of children and adolescents, with clinical cases to demonstrate old and new surgical and alveolar bone preservation approaches.

Affiliations

1. Clinic for paediatric and preventive dentistry, Faculty of dental medicine, University of Belgrade, Serbia
2. Simed Zobozdravstvo d.o.o.

Ceyhun Canpolat

Short cv:

DDS : Marmara University, School Of Dentistry
1991

PhD : Marmara University, Institute Of Health
Sciences, Department Of Prosthodontics. 2001

Yeditepe University, School Of Dentistry, Dept.
Of Prosthodontics. 2001-



Title:

Prosthetic Complications In Implant Dentistry

Selma Tosum, Bih

It has been a long time since implants are placed in post extraction sockets.

Lately, it has been done with a part of the root left inside the bone.

Much has developed and evolved with regard partial extraction therapy, and it offers a promising solution.

The aim is to show the protocol of partial extraction therapy, and modification of the same, the

concept of utilizing the patient's own tooth to preserve the periodontium and peri implant tissue.

BaSS AWARD

ORAL CARE AND PREGNANCY

Presenting author: Nataša Pejčić Barać

Research associate, School of dental medicine, University of Belgrade.

Nataša Pejčić Barać¹, Vanja Petrović¹, Dragana Rakašević¹, Nina Dimitrijević Jovanović¹, Zoran Mandinić¹

1. School of dental medicine, University of Belgrade, Serbia.

2. Health center Zemun, Serbia.

BACKGROUND: Early childhood caries, represents a global social, economic and psychological problem. Pregnancy is the best time for timely oral care advice to future mothers. The goal of the oral health care for mother and baby programme education, was to assess the change in attitude and level of knowledge of the participants of this programme after they were exposed to the lectures and educational material.

METHODS AND MATHERIALS: In order to establish their good oral hygiene habits, and to assess their current level of knowledge regarding oral care and healthy eating habits they have filled out a specially designed questionnaire before and after our lectures and workshops.

RESULTS: After analyzing the obtained data it was shown that all of the participants expressed their opinion that they will change their oral care habits. Most of the future mothers believe that early childhood caries can be prevented by good oral hygiene habits in infants and young children. Surprisingly, 60% of future mothers had an opinion that brushing teeth in children should start between the first and third year. 30 % of mothers changed their attitude towards the benefits of the age 1 dental appointment.

CONCLUSION: Early childhood caries is a serious public health problem, which is largely influenced by the insufficient knowledge of prevention options and risk factors by parents. It would be most effective for future mothers to get acquainted with the importance and ways of maintaining oral health in children during pregnancy.

STUDY OF THE FLOW RATE OF VARIOUS ENDODONTIC SEALERS

Ilić Veljko, Ilić Dragan, Sanja Milutinović-Smiljanić, Đorđe Antonijević, Vesna Danilović

School of Dental Medicine, University of Belgrade, Rankeova 4, 11000 Belgrade, Serbia.

Introduction: Property that characterises velocity along the certain surface depending on the friction force that exhibits of that time is called the flow. The aim of this research was to evaluate the flow rate of three zinc oxide eugenol based endodontic sealers in various consistencies exposed to the load of 2 kg. Material and methods: Samples were prepared according to ADA specification No. 57. Experimental group consisted of A) Endomethasone N in liquid:powder ratio of 1:5, 1:6, 1:7 (standard), 1:8 and 1:9 according to the manufacturer brochure depending on the clinical situation; B) Roth 801 as 1:7 (standard) and 1:8 mixtures C) Tubliseal EWT as standard preparation (base-catalyst 1:1). On a glass plate, the volume of 0.05ml sealer was spread and a load of 2 kg was applied after which sealer's diameter was measured. Same sealers were loaded only by the weight of glass plate (0.1kg) in a control group. Results: All of samples satisfied ADA requirements for the flow ($d > 20\text{mm}$) (Endomethasone – 20.7–27.8 mm; Roth 801- 29.6–30.0 mm; Tubliseal -39.9 mm). The thin consistency of sealers (1:5, 1:6) showed significantly higher flow than standard mixture (1:7) ($p < 0.05$). Conclusion: Highest flow rate was noted in Tubliseal EWT, significantly different than standard mixtures (1:7) of Endomethasone N and Roth 801.

Key words: flow, viscosity, sealer, endodontic sealer, zinc oxide eugenol

A DIFFERENT METHOD TO ACCELERATE ORTHODONTIC TOOTH MOVEMENT. A RANDOMIZED CONTROLLED TRIAL.

Osman Yildiz, Ahmet Yagci, Nizami Hashimli

¹Practice Orthodontist, Ankara, Turkey; ²Professor, Erciyes University, Faculty of Dentistry, Department of Orthodontics, Kayseri, Turkey; ³Research Assistant, Erciyes University, Faculty of Dentistry, Department of Orthodontics, Kayseri, Turkey

Introduction:

The canines are very important in terms of both oral functions and aesthetics. The positions of the canine teeth in the oral cavity connect the anterior and posterior teeth, which is especially important for their orthodontic movement in cases with premolar extraction(1).

Space closure is one of the most important stages of orthodontic treatment. There are many options for closing extraction spaces. Various force systems, such as Pletcher coil springs, elastic chains, elastic modules, and nickel titanium springs, have been used effectively(2, 3). In the 1980s, a device called Hycon was developed to close the extraction space. This simple device, which has a small screw-shaped design, has been reported to increase bone turnover and accelerate orthodontic tooth movement and cause minimal pain in the patient. In absolute anchorage cases, activating the screw 180 degrees will provide tooth movement without interrupting blood flow in the surrounding tissues(3).

According to the researchers, the average duration of orthodontic treatment is 2 years and this is affected by the severity of malocclusion, patient cooperation, biological variables, tooth extraction treatments and the need for orthognathic surgery(4). Prolonged orthodontic treatment can have many side effects such as pain, discomfort, dental caries, gingival problems and root resorption (5). In addition, many adult patients want to finish orthodontic treatment quickly because of aesthetic and social reasons(6). Therefore, both patients and orthodontists want to accelerate orthodontic tooth movement and shortening the total treatment time(7-9).

There are several methods for accelerating orthodontic tooth movement, but there is no clinically accepted method. Therefore, easy, tolerable and non-invasive methods are being sought to accelerate orthodontic tooth

movement.(10).Methods of accelerating orthodontic tooth movement in general:Drugs, surgical methods, physical and mechanical stimulation methods. Various drugs have been used successfully for many years to accelerate orthodontic tooth movement. But all of these drugs have some undesirable side effects. Therefore, drugs are not safely used today to accelerate orthodontic tooth movement.Surgical methods have been used by many clinicians to accelerate orthodontic tooth movement. However, surgical techniques have many disadvantages such as being invasive, rejection by the patient, pain, infection etc. Mechanical techniques have become popular because other techniques are invasive and have some side effects. These methods include laser, vibration and direct electric current etc(7). Mechanical vibration applications in orthodontics are noninvasive applications that are easily accepted by the patient and shorten the treatment time.Animal studies have shown that mechanical vibration applications increase orthodontic tooth movement by stimulating bone remodeling(11).

Recently introduced a device called AcceleDent that generates vibration signals. This device is rechargeable, easy to use and requires 20 minutes of use per day. In several case studies with this device, treatment time has been reported to be reduced by 30-40% (11, 12).

The aim of this study is to accelerate the orthodontic tooth movement by using the acceleDent and hycon device together.In addition, it is aimed to minimize the pain that occurs during the canine distalization phase of orthodontic treatment

SPONSORED LECTURE

DENSPLY SIRONA**“Prednosti i ograničenja suvremene endodontske terapije.”***Prof.dr.sc.Bernard Janković*

Prof.dr.sc.Bernard Janković je upisao Stomatološki fakultet Sveučilišta u Zagrebu u školskoj 1990/91. godini, a diplomirao je 14. svibnja 1996. godine. Od 3. ožujka 1997. godine radi u Zavodu za endodonciju i restaurativnu dentalnu medicinu. Magistarski rad pod naslovom "Rasprostranjenost karijesa u ratom zahvaćenim područjima Srednje Bosne" obranio je 28.12.2000. 2002. godine je promoviran u zvanje Znanstveni asistent pri Zavodu za dentalnu patologiju. Doktorsku disertaciju pod nazivom "Oralni status kod osoba starije životne dobi ovisno o zdravstvenim, socijalnim i ekonomskim čimbenicima" obranio je 4.listopada 2004. godine. Iste godine postaje specijalist dentalne patologije i endodoncije. Godine 2005. postaje Znanstveni suradnik, 2008. godine postaje docent, 25.5.2011. godine postaje Viši znanstveni suradnik a 18.3.2013. godine postaje izvanredni profesor pri Zavodu za endodonciju i restaurativnu Stomatologiju, Stomatološkog fakulteta Sveučilišta u Zagrebu. Aktivno sudjeluje na brojnim znanstvenim i stručnim kongresima u zemlji i inozemstvu.

Voditelj je predmeta poslijediplomske nastave „Minimalno invazivna dentalna medicina“. U školskoj godini 2009/2010 voditelj je Katedre za endodonciju i restaurativnu dentalnu medicinu Stomatološkog fakulteta u Splitu. Voditelj je i Katedre za endodonciju Studija za stomatologiju medicinskog fakulteta u Mostaru.

Od 2015. godine je ovlašten predavač kompanije Dentsply Sirona za Endo sustave. Autor je i suautor 20 preglednih i stručnih radova. Sudjelovao je u više domaćih i stranih kongresa. Član je Hrvatske Stomatološke komore, Hrvatskog endodontskog društva te International Association for Dental Research (IADR).

KRAJINAGROUP**Kontrola infekcije u stomatologiji – povratak u budućnost***Dr. Bojan Dželetović*

Dr. Bojan Dželetović, Klinika za bolesti zuba, Stomatološki fakultet Univerziteta u Beogradu. Specijalista bolesti zuba i endodoncije, asistent sa doktoratom na nastavnim predmetima: Bolesti zuba pretklinika, Restaurativna odontologija, Pretklinička endodoncija i Endodoncija. Autor i koautor preko 40 naučnih radova iz oblasti endodoncije i stomatoloških materijala. Rukovodilac i predavač po pozivu na više akreditovanih programa kontinuirane edukacije. Član stručnog tima za stomatološko zbrinjavanje pacijenata u Centru za osobe sa posebnim potrebama Stomatološkog fakulteta. Član Evropskog udruženja endodontologa (ESE), Balkanskog udruženja stomatologa (BaSS), Endodontske sekcije SLD, Udruženja endodontista Srbije (UES).

RADIX**The Sense & Nonsense of Teeth Whitening***Menno Arkesteijn*

- Introduction of Cavex Holland bv
- History Cavex
- History of Whitening
- Science behind Whitening
- Types of Whitening gels
- In-Office (high %) vs. At-Home (low %) treatments
- Cavex Bite&White ABC Masterkit

"I studied 'Dental Hygiene' in Amsterdam – Graduated in 1997.

Worked in several Dental Clinics in the North-West of Holland.

And I have taught primary school children all around Holland about oral care during a 'Strong Teeth – Project' of Prodent (was a toothpaste brand of Sara Lee).

In 2014 I became an Area Manager for 1 of the global biggest Dental brands - After a period working outside the Dental Industry.

Since 2019 I proudly represent the Cavex branded products.

In my current role I am responsible for the European distributor- and dealer market and I work together with a small Sales team in the Netherlands, Belgium and Luxemburg.

Cavex is still growing and innovating on Alginates (market leader in BeNeLux) and has a focus on the growing Teeth Whitening and Oral Care portfolio."

MR DENTAL**Implant Dentistry Free of Illusions***Dr. Andreas Barbetseas, Grčka***CV:**

Dr. Andreas Barbetseas graduated from the Dental School of the University of Athens in Greece in 2005. He received specialty training in Surgical and Prosthetic Implantology in the Department of Periodontology and Implant Dentistry of New York University, USA (Chair: Professor Dr. Dennis Tarnow) between 2008 and 2010.

In 2010, he received the New York University's Postgraduate Research Award for his research work on the peri-implant soft tissue management. During his graduate studies he pursued extensive academic and clinical training on the full range of Periodontal and Peri-implant Microsurgery. Currently the doctor's main clinical interest lies in the application of minimally invasive microsurgical techniques for the maximization of Aesthetics in periodontal and implant care.

Dr. Andreas Barbetseas is the founder and Director of Education of the "ImmediaTeam International Association". The mission of the ImmediaTeam is to provide state of the art basic and advanced training on Oral Implantology, offering specialized clinical courses worldwide.

The doctor has been the winner of multiple clinical awards, including the 1st Bego Clinical Case Award in 2013.

He is a Diplomate of the International Congress of Oral Implantologists (ICOI).

Dr. Barbetseas gives lectures internationally on Advanced Oral Implantology and Oral Microsurgery, and is widely considered as a leading expert on Periodontal and Peri-implant Soft Tissue Management. To date, he has trained numerous dentists from around the world, with lectures and courses that are known for being creative, inspirational and highly educative.

Dr. Barbetseas maintains a private practice in Athens, Greece which is limited to Implant Surgical Reconstruction and Soft Tissue Regeneration.

BERLIN CHEMIE**1. Afte i ranice u usnoj šupljini: Zašto nastaju i kako ih se riješiti?****Prof dr sci Almir Dervišević****2. Primjena analgetika u stomatologiji - dr Predrag Jovičić**

DATUM I MJESTO ROĐENJA: 06.08.1981., Mrkonjić Grad; Bosna I Hercegovina

OBRAZOVANJE:

- Zubotehnička škola Sombor (1996.-2000.)
- Medicinski fakultet odsjek Stomatologija u Banja Luci (2000.-2007.)
- Doktorant Biomedicinskih nauka na Medicinskom fakultetu u Banja Luci

STRUČNI ISPITI:

- Specijalistički ispit iz oralne hirurgije, Sarajevo (2013.)

RADNO ISKUSTVO:

- Doktor stomatologije u JZU Dom zdravlja Jajce (2007.-2010.)
- Doktor stomatologije na specijalizaciji u KC Banja Luka, Zavod za stomatologiju Banja Luka, Klinika za oralnu hirurgiju I implantologiju Sarajevo (2010.-2013.)
- Doktor stomatologije specijalista oralne hirurgije u JZU Dom zdravlja Jajce (2013.-2014.)
- Doktor stomatologije specijalista oralne hirurgije u JZU Zavod za stomatologiju Banja Luka od 2014.
- Šef službe za oralnu hirurgiju u JZU Zavod za stomatologiju Republike Srpske u Banja Luci od 2018.

EDUKACIJA:

- Učesnik brojnih kongresa, simpozijuma I radionica
- Savremene dileme u oralnoj implantologiji I oralnoj hirurgiji, Beograd 2017.
- Aktuelnosti u oralnoj hirurgiji I oralnoj implantologiji, Beograd 2018.
- Međunarodni kongres Perioimplant 7, Opatija 2018.
- Masterclass All-ON-4 & ZYGOMA-REHABILITATING SEVERELY ATROPHIC MAXILLAE (Dr Paolo Malo), Opatija 2018.
- Savremeni izazovi u oralnoj implantologiji I oralnoj hirurgiji, Beograd 2019.
- OSSTEM/HIOSSEN computer guided implantology, Frankfurt 2019.
- 8. Međunarodni kongres stomatološkog fakulteta sveučilišta u Zagrebu, Rovinj 2022.

POZVANI PREDAVAČ:

- Oralnohirurški aspekti facijalnog bola I primjena deksketoprofen trometamola (DKT) u svakodnevnoj kliničkoj praksi, 6. Kongres stomatologa sa međunarodnim učešćem Bosne I Hercegovine, Mostar 2019.

ČLANSTVO U PROFESIONALNIM I STRUČNIM ASOCIJACIJAMA:

- Član Komisije za etiku I deontologiju Komore doktora stomatologije Republike Srpske

OBJAVLJENI STRUČNI ČLANCI:

- Hirurško vađenje zuba (www.stomatologija.me, 2020.)
- Vađenje impaktiranih umnjaka (www.stomatologija.me, 2021.)

DENTAL SM**„The restoration of endodontically treated teeth as a final step in endodontic treatment: successful outcome or beginning of failure?„***Dr Aleksandra Žuža*

Endodontically treated teeth may be lost due to post-treatment endodontic disease, irretrievable cusp or crown fracture, vertical tooth fracture, periodontal disease, restorative failure or other less common causes. Conventional clinical practice assumes that endodontically treated teeth are restored to form and function after the completion of root canal treatment. Coronal restoration helps to protect root canal system from coronal leakage and reinfection. Protective effect is enhanced if the coronal restoration is placed soon after the completion of root canal treatment. Whilst much of the research relating to post-treatment failure endodontically treated teeth focuses on the factors leading to endodontic disease and periapical lesions, numerous studies have demonstrated that restorative failures are the most common reasons for teeth to be extracted. The emergence of research relating to the survival, rather than clinical and radiographic success of endodontically treated teeth has highlighted the importance of the definitive restoration on long-term outcomes. There is increasing evidence that the quantity and quality of sound residual tooth structure and choice of final restoration are the main determinants of longevity for endodontically treated teeth. Choosing the optimal restoration for a root filled tooth requires consideration of a number of factors such as residual tooth structure, the location of the tooth in the arch, ferrule effect, the number of residual walls, periodontal status, occlusal and financial considerations etc. Deciding when cuspal coverage is needed for posterior teeth is considered a challenge for dentists. Dilemmas such as whether a post reinforces a root filled tooth, if a tooth requires cuspal coverage protection and the appropriate timing of the definitive restoration are still common. The use intraradicular posts in endodontically treated teeth has been an area of much discussion and controversy. Anterior teeth and premolars may require fibre posts more often than molars. Dilemmas complicate clinical decision, and as a result clinicians are often unclear when choosing the most adequate definitive restoration following the endodontic treatment. By discussing the evidence in relation to key topics regarding post-endodontic restoration, a series of clinical recommendations are made. Some authors have attempted to create guidelines to assist clinicians in the decision-making process. Whilst there is established consensus on the importance of the ferrule effect on the predictable restoration of endodontically treated teeth, other factors have been reported to influence restoration and tooth survival. It is therefore challenging to individually assess the effect of each of these factors on tooth or restoration survival.

Biography

Dr. Aleksandra Žuža graduated from the Faculty of Dentistry, University of East Sarajevo, Republic of Srpska, Bosnia and Herzegovina in 2007. In 2013, she obtained a Master's degree in medicine (topic: „Prevalence of non-carious cervical lesions among the general population of the Republic of Srpska, Bosnia and Herzegovina“) and in 2014, completed a specialization in dental disease and endodontics at the Medical Faculty of the University of East Sarajevo. From 2016 she is working on her PhD thesis at the same faculty (topic: „Negative apical pressure irrigation system : antibacterial effect and influence on postoperative pain“). Since graduating, she has been employed at the Faculty of Medicine, at the Department of Dental Pathology. So far, she has published 11 papers in international and national peer-reviewed journals, has presented more than 40 papers at international and national conferences. Dr. Žuža participates in the work of the editorial and publishing board of the journal Biomedical Research and DentalArt KDS. Her primary research work relates to endodontic tooth therapy and restorative dentistry.

BOSNALIJEK**Analgetici, antibiotici i oralni antiseptici u dentalnoj medicine*****Emir Boškailo*****CV**

Dentist 1. April-October 2011, internship December 2011. Medical representative, cardio and endo portfolio coordinator and project manager in pharmaceuticals, Product manager in pharmaceuticals, Public Health Centers of Canton Sarajevo / OJ Health Center Ilidža / Berlin-Chemie AG, Representative for BiH, Bosnalijek

IVOCLAR VIVADENT**Digital dentistry – new milestone in dental profession***Prof. Dr. Danimir Jevremović*

Digital dentistry is more than just a way to create prosthodontic artworks. It enables new workflow, which is faster, more precise and less prone to errors. It favours simplicity, repeatability, productibility and finally, offers better overall results.

Intraoral scanners, such as Vivascan, are used in digital dentistry for rapid image-taking of the patient's intraoral structures. The images, called digital impressions, are then imported into the CAD/CAM software to design and manufacture dental restorations, such as dentures, crowns, veneers and dental implants. The digital impressions are also useful to plan orthodontic treatments and create orthodontic appliances.

Central occlusion preservation, digital mock-up, import of other digital media, such as photography enables a completely new approach to dental restoration. In this lecture, complete workflow of digital dentistry is shown on practical examples. Via cases, advantages of intraoral scanning are really getting more prominent. From one tooth to a complete mouth restoration, digital dentistry presents a new milestone in dental profession.

CV

2001 Graduated School of Dentistry, Uni Belgrade

2002 Assistant Uni Belgrade

2005 MSc, Uni Belgrade

2007 Specialization Dental prosthodontics

2008 PhD, Uni Belgrade

2008 Sales Serbia & Montenegro Ivoclar Vivadent

2009 Assistant professor, School of Dentistry Pančevo

2014 Associate professor, School of Dentistry Pančevo

2017 Professor, School of Dentistry Pančevo

2019 Professional Service South Eastern Europe Ivoclar Vivadent

2019 Vice Dean for Science, School of Dentistry Pančevo

Danimir Jevremović was born on November, 1978. He graduated School of Dentistry with all highest marks, and became youngest and the best graduate on University of Belgrade, Serbia. During master studies (2005), specialization (2007) and PhD thesis (2008) he deals with contemporary all ceramics systems, adhesive restoration and principles of minimally invasive dentistry. Known for his artistic understanding of dentistry, he derives prosthodontics as an interference of smile beauty and team talent. Start of Ivoclar Vivadent career began in 2008, being Business Development Manager for Serbia & Montenegro. In 2009, he becomes Assistant professor at Uni-

versity Business Academy, School of Dentistry, Pančevo. He broadens ideas through exchange visits in Liechtenstein, Switzerland, Germany, England and Wales. In 2015, he becomes Associate professor, and in 2017 he gains Professor title at the same Faculty. Since 2017., he is a Chairman of Dental Prosthodontic clinic, Chief of Ethical committee and Head of Department of Clinical Dentistry in School of Dentistry, Pančevo. In 2019, Ivoclar Vivadent declares him as Professional Service for the region of South Eastern Europe. Since 2019, he is a vice Dean for science at the Faculty. He has one book, two monographies and one practical notebook for dental students. He is author and co-author of numerous scientific publications, participant in international projects, as well as lecturer and demonstrator on domestic and international symposia.

LECTURES (LECT)

LECT-1**CLASSIC AND MODERN IN DIGITALISATION OF CONTEMPORARY IMPLANTOLOGY**

Norina Forna, Topoliceanu Claudiu, Doriana Agop-Forna, Norin Forna

UMF "Grigore T. Popa" Iasi, Romania

Classical implantology techniques have proven their efficiency but lack in accuracy and predictability. The digitalization of the implant-prosthetic rehabilitation represents a challenge both for generalist dental practitioners and specialists in implantology. It consists of the use of the digital expert systems in the pro-implant and implant stage for diagnostic and assessment of the bone-mucous support (CS9300, Planmeca Romexis3D), assisting of the surgical implant phase by 3D navigation systems (Robodent, X-Guide Implant Planning), use of software applications (DDS) for the design of the future fixed or removable implant-supported prosthesis. Implantologists must adapt to new digital procedures and technologies such as virtual implant planning (to minimize implants' axial loading), static guided surgery and dynamic free-hand navigation (to increase implants positioning accuracy), and accurate manufacturing of the implant-supported prosthetic restorations by CAD/CAM technologies. The digitalization of implantology allows optimization of the surgical workflow planning and decreases significantly the rate of the postoperative complications.

LECT-2**INTERDISCIPLINARY MANAGEMENT IN COMPLEX SYSTEMIC AND ORAL REHABILITATION**

Doriana Agop-Forna, Norin Forna, Norina Forna, Lorenza Donea

UMF "Grigore T. Popa" Iasi, Romania

Local and loco-regional complications of extended partial edentulous patients vary from alveolar ridge resorption to reduced masticatory function, unhealthy diet, social disability, and poor quality of life. Most patients affected by severe loco-regional complications have also various systemic diseases (cardiovascular diseases, gastro-intestinal disorders, liver pathology), that can negatively influence the postoperative stage. In this context, implantologists and prosthetic specialists orientate the patients, wherever is possible, to implant-prosthetic rehabilitation. Interdisciplinary management of implant-prosthetic therapy is requested when implant-prosthetic rehabilitation involves the reconstruction of alveolar ridges in the pro-implant stage. The implantologist and oral surgeon need to agree the selection of the grafting materials and techniques in relation to systemic, loco-regional, local factors and the planned prosthetic solution. In this context, a practical guide for the management of the systemic pathology and the optimal surgical approach in the proimplant stage may be useful in order to optimize the aesthetic and functional results of the patient candidate to implant-prosthetic rehabilitation.

ORAL PRESENTATIONS (OP)

OP – 1**MAXILLARY MOLAR DISTALIZATION WITH CLEAR ALIGNER SYSTEM.
A LITERATURE REVIEW**

Mehmet Ali Yavan

Adiyaman University, Faculty of Dentistry, Department of Orthodontics

Aim: The aim of this literature review is to introduce clinicians the efficiency of the various molar distalization techniques with clear aligner treatment on dentofacial structures.

Material and Methods: Maxillary molar distalization studies with clear aligner technology were reviewed. The selection was based on compliance with the following criteria: treatment group with at least 10 non-syndromal patients, class II treatment with clear aligner system, consistent cephalometric measurements in clinical-epidemiological studies, exact data on the course of treatment, and statistical presentation of the measured outcomes and their standard deviations.

Results: Studies showed that upper molar distalization with clear aligner was possible. Two different distalization techniques were detected. One protocol included sequential aligners with rectangular vertical composite attachments on the upper molars and class II elastics. Other one applied distalization forces from temporary anchorage device at the infra zygomatic crest with intra maxillar elastics to the button attached to the aligners. All studies reported class I molar relationship at the end of the therapy.

Conclusion: Significant upper molar distalizations were reported with clear aligner therapies.

OP – 2**LOWER INCISOR POSITION IN SKELETAL CLASS II MALOCCLUSION****Ozge Uslu-Akcam*****Ankara Yıldırım Beyazıt University, Faculty of Dentistry, Department of Orthodontics***

Background: The position of lower incisor has been of considerable concern when planning an orthodontic treatment. The aim of this study was to determine the position and inclination of lower incisor in skeletal Class II malocclusion.

Methods and Materials: Lateral cephalometric radiographs of 40 patients (20 female, 20 male) having skeletal Class II malocclusion (mean age $13,10 \pm 2,62$) and 40 patients (21 female, 19 male) having skeletal Class I occlusion (mean age $14,21 \pm 2,99$) were used in this study. The linear cephalometric measurement used in this study was Lower incisor-NB distance; and the angular measurements studied were Lower incisor-NB angle, Lower incisor to mandibular plane angle (IMPA) and Interincisal angle. Statistical analysis was performed using Student's t-test and correlation calculations were investigated.

Results: The difference between skeletal Class I and Class II groups are statistically significant in terms of 1-NB distance and IMPA angle ($p < 0,05$). There were no significant differences in measurements in terms of gender in both groups. In Class I and Class II groups, the correlation coefficients between the ANB angle and the cephalometric measurements giving the lower incisor position were calculated. Positive relationships were found between 1-NB distance and 1-NB angle; 1-NB distance and IMPA angle and between 1-NB angle and IMPA angle. Negative relationships were found between 1-NB distance and interincisal angle and between 1-NB angle and interincisal angle.

Conclusion: There are statistically significant differentiation in lower incisor position and inclination respect the skeletal malocclusion. The cephalometric measurements of the lower incisor show different correlations with the ANB angle.

OP – 3**EFFECT OF STABILIZATION SPLINT THERAPY IN PATIENTS WITH LARGE CENTRIC RELATION - MAXIMUM INTERCUSPATION DISCREPANCY**

Kenan Demirovic¹, Vildana Dzemic², Enita Nakas²

¹ *Private Practice for Dentofacial Orthopedics and Orthodontics “Demirovic”*

² *Department of Orthodontics, School of Dental Medicine, University of Sarajevo*

BACKGROUND: The aim of this study was to evaluate the effect of stabilization splint therapy in patients with signs and symptoms of temporomandibular disorders (TMD) and large centric relation (CR) -maximum intercuspation (MI) discrepancy. Also, the purpose of study was to determine if there is a relationship between the condylar axis position as determined by the occlusion and signs and symptoms of TMD, using the condylar position indicator (CPI III).

SUBJECTS AND METHOD: A sample consisted of 35 non-deprogramed individuals who had horizontal or vertical mandibular incisor movements between the CR and MI greater than 2.0 mm. The centric relation bite registration technique developed by Roth was used. All subjects underwent stabilization splint therapy during average period of 6 months. The comparison was based on written patient histories, clinical exams, and CPI measurements. The condylar displacements for 35 subjects were measured in vertical, sagittal and transversal components from mounted models using CPI III system. Obtained data was evaluated by using Wilcoxon signed-rank test and Spearman's correlation coefficient.

RESULTS : When the pretreatment and posttreatment examination scores were compared, an 90 % reduction in symptoms was found after treatment. A high correlation ($p < .001$) between signs and symptoms of TMD and CPI values was documented.

CONCLUSIONS: In patients with signs and symptoms of TMD and significant discrepancy between the CR and MI, stabilization splint therapy is highly recommended. In order to make a correct orthodontic diagnosis stabilization splint should be used in individuals with large CR - MI discrepancies.

OP – 4**CONSIDERATIONS ON THE ABUTMENT TEETH PREPARATIONS MADE BY STUDENTS FOR FULL CERAMIC CROWNS**

Dragos Ioan Virvescu, Dan Nicolae Bosinceanu, Alice Arina Ciocan Pende-funda, Florinel Cosmin Bida, Zinovia Surlari

Umf Gr T Popa

Background: It is very important for dental graduates to be able to prepare teeth for crowns, emphasis being laid on the buccal and occlusal reduction, enough to enhance the functionality of the final restoration. Methods and material: This study included a self administered questionnaire on the preparations for ceramic crowns and 128 casts from October 2018 - July 2019 were collected from the laboratory of the Dental Faculty in Iasi and evaluated for buccolingual and mesiodistal reduction with a caliper. The presence of rounded angles and functional cusps were also assessed. Results and conclusions: Average buccolingual and mesiodistal reductions were $2.03\text{mm} \pm 0.82$ and 2.31 ± 0.77 mm. These values were in the hypothetical ideal range and statistical comparison was insignificant ($p \geq 0.05$). The overall quality of teeth preparation was satisfactory.

OP – 5

HALITOSIS IN COMPLETE DENTURE WEARERS-a clinical study

Cosmin Bida¹, Dan Nicolae Bosinceanu², Maria Bolat³, Zinovia Surlari⁴, Dana Gabriela Budala⁵

¹Gr.T.Popa”U.M.Ph. -Iasi, Romania, Faculty of Dentistry, Department of Removable Dentures; ²Gr.T.Popa”U.M.Ph. -Iasi, Romania, Faculty of Dentistry, Department of Removable Dentures; ³Gr.T.Popa”U.M.Ph. -Iasi, Romania, Faculty of Dentistry, Department of Removable Dentures; ⁴Gr. T. Popa” U.M.Ph. -Iasi, Romania, Faculty of Dentistry, Department of Fixed Prosthodontics; ⁵“Gr.T.Popa”U.M.Ph. -Iasi, Romania, Faculty of Dentistry, Department of Removable Dentures

Background: Breath malodor may be caused by numerous factors. Despite the various etiology, halitosis originates from the oral cavity, as a result of microbial metabolism. Methods and material: This study intended to assess halitosis in a group of elderly denture wearers, taking into consideration factors that may contribute such as age, burning mouth syndrome, overnight denture wear. The study group consisted of 42 denture wearers (28 men and 14 women), age between 56 and 85, from Iasi County, Romania. Participants were given a self-administered questionnaire and tongue coating scores were measured. Analysis included frequency, ANOVA, independent sample and paired t test. Results and conclusions: The study concluded that many factors such as burning mouth syndrome, plaque accumulation, overnight wear had been related with halitosis. Following tongue care maintenance and overnight removal, halitosis decreased significantly.

OP – 6**KNOWLEDGE AND ATTITUDE TOWARD ORAL HYGIENE PRACTICE AMONG PATIENTS WITH DENTAL BRIDGES**

Zinovia Surlari, Florinel Cosmin Bida, Alice Arina Ciocan Pendefunda, Dana Gabriela Budala, Dragos Ioan Virvescu

UmfGr T Popa

Background: Dental bridges have been the treatment of choice for the replacement of missing teeth for some years. Even with a proper pontic design and material selection, oral hygiene measures are necessary for removing the bacterial plaque and preventing mucosal inflammation. Methods and material: A random sample of 70 patients who have FPDs participated in this study. The patients answered a questionnaire of 15 questions about knowledge, attitude, and awareness on oral hygiene practices toward FPDs. Results and conclusions: 80% of patients do not use any special cleaning aids to clean the prosthesis. Only 10% of patients use special cleaning aids to clean the prosthesis. On the introduction of special cleaning method, 76% of patients reported that dentist who did the prosthesis introduced the special cleaning method. Highly significantly number of patients did not use any form of interdental aids to clean their fixed prosthesis. The main reason for not using any dental aids was a lack of post-fixed prosthodontics instructions and not been informed by the dentist.

OP – 7**ASSESSMENT OF ANGIOGENESIS AND INFLAMMATION INTENSITY IN DENTAL PULP**

Irmina Tahmišćija, Alma Konjhodžić, Lajla Hasić Branković, Aida Džanković, Samra Korac

School of dental medicine, Sarajevo

Background: Angiogenesis is an integral part of chronic inflammation, including pulpitis. The aim of this study was to evaluate angiogenesis by using CD34 and CD105 markers and to compare obtained results with the intensity of the inflammation in dental pulp.

Methods and materials: Fifty-four pulp samples were collected from premolars, clinically diagnosed as irreversibly inflamed. Fifty-one pulp samples were collected from healthy premolars, extracted for orthodontic reasons. Hematoxylin-eosin stained sections were used for microscopic evaluation of inflammation intensity. The inflammation was graded as mild, moderate and intense. Immunostaining was performed on formalin-fixed, paraffin-embedded tissue sections according to the immunohistochemical staining protocol. CD34 positive vessels with visible vascular lumen and CD105 positive endothelial cells, endothelial cell clusters and vessels were counted at high magnification power ($\times 400$) and a total of five fields were calculated.

Results: The mean number of CD34 and CD105 positive vessels in inflamed pulps was significantly higher ($p < 0.0001$) than in healthy pulps. There was no significant correlation between CD105 and CD34 microvessel counts ($p = 0,7$). No significant difference was identified between intensity of inflammation and number of CD34 positive ($p = 0.798$), as well as, CD105 positive endothelial cells ($p = 0.280$).

Conclusion: Our research confirmed irreversible pulpitis-related angiogenesis. While inflammation and angiogenesis are capable of potentiating each other, our results did not show correlation between grade of inflammation and angiogenesis. Our findings suggest that CD105 is a reliable marker for angiogenic status in inflamed dental pulp, with no or only weak expression in healthy pulps.

OP – 8**APPLICABILITY OF PRF AND STICKY BONE IN ORAL SURGERY****Naida Hadziabdic***Faculty of Dental Medicine with Clinics, University of Sarajevo, Bosnia and Herzegovina*

Introduction: Platelet-rich fibrin (PRF) as a biological scaffold is attracting clinicians' attention, mainly because of its capability in promoting bone and soft tissue healing. As autologous material, PRF has many advantages over other platelet concentrates, such as Platelet-rich plasma (PRP) and Plasma rich in growth factors (PRGF). Among many benefits, simple preparation (centrifugation protocol) stands out because there is no additional anticoagulant added in the tubes.

Aim: This presentation aims to clarify the PRF membranes and sticky bone preparation

Materials and methods: In a few clinical cases, it will be shown how sticky bone is together with PRF membranes applicative in different oral surgery indications

Results: Clinical and radiological check-ups demonstrated excellent therapeutic outcomes.

Conclusion: Sticky bone and PRF membranes have regenerative potential and are advised to use in many oral surgery procedures.

OP – 9**APICAL SEALING ABILITY OF DIFFERENT RESIN-BASED SEALERS**

Aida Džanković, Alma Konjhodžić, Lajla Hasić-Branković, Samra Korać, Irmina Tahmiščija

Faculty of Dental Medicine, University of Sarajevo

BACKGROUND The aim of this in vitro study was to evaluate the apical microleakage of two resin-based sealers EndoREZ, RealSeal SE and compare their sealing ability to conventionally used lateral condensation technique (AH Plus /gutta-percha).

METHODS AND MATERIALS Ninety extracted single-rooted human teeth were prepared using Mtwo rotary system (VDW GmbH, Germany). The samples were randomly divided into three groups (n=30) and obturated with EndoREZ (Ultradent, USA), RealSeal SE (SybronEndo, USA) and AH Plus/gutta-percha (Dentsply, Germany) using lateral condensation technique. The specimens were immersed in India ink for seven days and made transparent using the clearing technique. Linear apical dye penetration measured under a stereomicroscope (x10).

RESULTS AH Plus/gutta-percha group was provided the least apical microleakage among tested groups. EndoREZ was shown significantly more leakage than AH Plus/gutta-percha group ($p<0,0005$). No statistical differences in apical leakage were observed between RealSeal SE and EndoREZ, as well as RealSeal SE and lateral condensation technique.

CONCLUSIONS None of the tested materials were able to provide a complete hermetic seal. New resin-based sealers designed to create endodontic monoblock in the root canal are not superior to lateral condensation considering their sealing ability.

Keywords: endodontic monoblock, EndoREZ, RealSeal SE, AH Plus/gutta-percha, apical microleakage

OP – 10**CBCT VERSUS OPG IN LOCALIZING IMPACTED CANINES - WHEN AND WHY**

Jasna Petrovska, Dragan Petrovski, Stojan Petrovski

UKIM Faculty of Dentistry

CBCT has become a reliable adjunctive tool for both diagnosis and treatment planning in the field of dentistry. Studies showed that among dental practitioners OPG is more commonly ordered, but CBCT is more advocated by implantologists and orthodontists. Analysis of panoramic images versus CBCT images reconstructions provided different information regarding tooth position, especially concerning the mesio-distal apex position and the labio-palatal cusp position, but also in assessment of root resorption. The aim of this study is to compare the diagnostic possibilities of OPG versus CBCT in localizing upper impacted canines and adjacent tooth resorption prognosis. 10 cases of impacted maxillary canines were subjected to both CBCT and OPG imaging. Canine positions and adjacent root resorptions were assessed and compared.

CBCT images are of fundamental importance in recognizing the presence of adjacent root resorptions, impacted canine root anomalies, and possible overlap between canine crown and incisors roots.

OPG are less reliable in recognition of adjacent root resorption during maxillary canine impactions, but are generally safe in localizing the position of impaction.

Determination of safe zones for identifying the true sagittal location of impacted maxillary canine in OPG may reduce the use of CBCT in accordance with the ALARA principle. According to SEDENTEX project CBCT should only be used when information cannot be obtained from conventional techniques.

OP – 11**TREATMENT DECISIONS OF DEEP DENTIN CARIES OF TURKISH DENTISTS**

Leyla Kerimova¹, Erdem Karabulut², Kivanç Yamanel¹, Neslihan Arhun¹

¹*Baskent University*; ²*Hacettepe University*

Background: The aim of this cross-sectional study was to investigate the Turkish dentists' opinions and preferences regarding management of deep carious lesions. **Methods and Materials:** An electronic questionnaire was sent to dentists via TDA (Turkish Dental Association). The data obtained were analyzed using Chi square and one-way ANOVA tests to compare differences in distribution between groups. p values of less than 0.05 were considered statistically significant. **Results:** The majority of dentists (89.3%) responded that caries lesion should be removed completely and the final cavity floor should be hard. Around two third of the dentists believing that complete caries removal (59.5%) and elimination of all cariogenic microorganisms (66.5%) are essential, rejected to leave soft caries underneath a restoration. The number of dentists thinking that the cavity floor could be soft was significantly less among the ones working in state offices than the ones working in private offices or university clinics ($p=0.015$). The female dentists preferred less invasive treatment methods of deep caries lesions than male dentists ($p=0.002$). Older dentists were more prone to prefer complete caries removal even if pulp exposure is likely ($p=0.040$). Dentists working uptown were significantly more indecisive ($p<0.001$) regarding preferring more invasive treatment due to having no chance to follow up the patients. **Conclusion:** The majority of Turkish dentists prefer conventional complete removal of deep dentin caries, because of the belief that residual caries may progress and cause pulpal complications. Therefore, incomplete caries removal techniques should be implemented in undergraduate programs and lifelong learning of a graduate.

OP – 12**ATTITUDE OF TEACHERS IN PRESCHOOL INSTITUTIONS OF BOSNIA AND HERZEGOVINA ON EARLY CHILDHOOD CARIES**

Elma Katana, Senka Serhatlić, Lejla Šaćić Selmanović, Elmedin Bajrić, Nina Marković

Faculty of dentistry

Aim:The aim of the research was to examine the general attitude of teachers in preschool institutions about caries in children of preschool age.

Methodology:The research was conducted from November 2019 to the end of January 2020. The research consisted of a survey of teachers. The questionnaire consisted of 14 questions, which related to the attitude and knowledge of teachers on the prevention of early childhood caries.

Results:More than half of the respondents claim that their knowledge of oral hygiene is quite enough(64.7%) and that preventive protection of children's mouths and teeth should be an unavoidable area in the education of preschool teachers(86%). 58% of them think that it isn't their responsibility, as teachers, to preserve the dental health of children from kindergartens where they work, and that the dentist is the only responsible person who should protect teeth from caries in children, 74.7% think. 40.7% of teachers believe that brushing children's teeth in kindergarten can't be controlled; while 45.3%, has the opposite view. 70% of respondents are of the opinion that the consuming sweets and sweetened drinks between meals in kindergarten can be controlled.

Conclusion:Kindergarten teachers have shown correct and positive attitudes about the importance of children's oral health in the prevention of ECC.

Key words:dental caries, ECC, kindergarten

OP – 13**EVALUATION OF SCATTERING RADIATION IN BRACKETS ON PERI-APICAL RADIOGRAPHY**

Gulden Karabiber¹, Ahmet Fatih Kocaer²

¹Istanbul Medeniyet University, Orthodontics; ²Istanbul Medeniyet University, Oral and Maxillofacial Radiology

Background

Materials transmit some amount of radiation coming on them (transmission), they scatter some amount (reflection). This scattered radiation causes the changes in radiodensity on radiograms. Differences in material density have effect on amount of scattered radiation. Density of the brackets used in orthodontic treatment are different, therefore difference in radiopacity would be expected in the area around different brackets. This may be misleading in evaluation, if there are any caries and restorations around brackets. Thus, the discovery of the differences of orthodontic brackets will shed light on future scientific research and treatments.

Methods and Materials

The study was carried out using ten different brackets on the adult phantom model in the Istanbul Medeniyet University, Dentistry Faculty. A total of eleven periapical radiograms were taken, one without bracket and ten with brackets. These periapical radiograms were evaluated with the Image J software (version 1.13). Radiopacity values were measured from 15 different points on each image five times. The radiodensity of the brackets were determined according to the Aluminum step wedge by giving the numerical value of 0 radiopaque and 255 radiolucent digit value.

Results

According to the obtained numerical data, a statistically significant difference was found between the radiograms in terms of radiopacity in the area around the bracket.

Conclusion

The detectability of details in any formations behind of the bracket or in the area around the bracket may change. This situation has serious clinical importance in terms of diagnosis.

OP – 14**ASSESSMENT OF AN ORTHODONTIC ADHESIVE WITH COMBINED PRIMER AND COMPOSITE**

Tugce Esra Gunes, Mehmet Akin

Alanya Alaaddin Keykubat University, Faculty of Dentistry

Aim: The aim of this study was to investigate the effect of a new orthodontic bonding system that includes the primer solution in the adhesive.

Materials and Methods: This study consisted of 3 groups, each containing 15 first premolar teeth. Acid etching were applied to teeth for 15 seconds. In Group 1, a single layer of primer was applied on the teeth before bonding the brackets with Transbond XT System, in Group 2 with GC Ortho Connect (which incorporates the primer in the adhesive), and in Group 3, a single layer of primer was applied on the teeth before bonding the brackets with GC Ortho Connect. Shear Bond Strength (SBS) results were analyzed with one-way ANOVA and Tukey-HSD Test, Adhesive Remnant Index (ARI) score analyzed with Chi-square Test at $P < 0.05$.

Results: The mean SBS values were 15.12 ± 2.35 MPa for Group 1, 13.24 ± 2.04 MPa for Group 2 and 17.32 ± 1.98 MPa for Group 3. According to Tukey Test, only significant difference was found between Group 2 and Group 3 ($P < 0.05$). According to Chi-square Test, statistical analysis of the ARI scores showed no significant difference in adhesive remnants among the three groups ($P > 0.05$).

Conclusion: The GC Ortho Connect bonding system can be efficiently used for orthodontic bonding. Adding a layer of primer appears to slightly increase the SBS while causing more adhesive to remain on enamel from which brackets were debonded.

OP – 15**EFFECT OF IMPLANT LENGTH ON TRABECULAR STRUCTURE OF BONE: FRACTAL DIMENSION STUDY**

Kemal Ozgur Demiralp¹, Nihat Akbulut², Merve Yar³, Abdulsamed Maden², Seval Bayrak⁴

¹Republic of Turkey ministry of health; ²Tokat Gaziosmanpasa University faculty of dentistry department of oral and maxillofacial surgery; ³Abant Izzet Baysal University faculty of dentistry oral and maxillofacial surgery department; ⁴Abant Izzet Baysal University faculty of dentistry department of oral and maxillofacial radiology

Aim: The aim of this study is to investigate the effect of different implant sizes on the trabecular structure of bone.

Materials and Methods: In the study, fractal dimension (FD) was calculated in the lateral incisor, canine, premolar and molar regions where implants were placed in the mandible on panoramic images taken from 20 patients before (T0) and 3 months after the implant treatment (T1). For this purpose, implants of the same brand with the dimensions of 8.5 mm (group 1), 10 mm (group 2), and 11.5 mm (group 3) were divided into 3 groups. FD was calculated by selecting the region of interest (ROI) in 45x45 pixel and 75x45 pixel sizes from the apical region and distal of each implant, respectively.

Result: There was no statistical difference between T0 and T1 in any of the groups in the FD values calculated on the distal surface of the implants. While there was no difference between T0 and T1 values in the apical region of the implants in group 1 and group 3, the FD calculated in T1 in group 2 was found to be significantly lower than the FD calculated in T0.

Conclusion: In order to improve the results of this study, there is a need for new studies with larger sample size, implants of the same diameter and different lengths, and the results are supported by clinical parameters.

Key words: fractal dimension, implant, trabecular structure

OP – 16**VALIDITY AND QUALITY ASSESSMENT OF INFORMATION ABOUT BRACES DISCOMFORT ON THE INTERNET**

Merve Nur Eglenen

Yeditepe University faculty of dentistry department of orthodontics

BACKGROUND: To evaluate the validity and quality of internet-based information about orthodontic braces discomfort.

METHODS AND MATERIALS: An online search was performed using GoogleTM with keywords “braces pain”, “braces hurt”, “braces sore”, “brace tightening pain”, “first days in braces” chosen via GoogleTrends. Top 10 websites for each were evaluated. Excluding duplicates and irrelevant, remaining 30 websites were assessed using DISCERN and EQIP criteria.

RESULTS: According to DISCERN, websites mainly scored as “poor” (57%) or “fair” (30%). While no site categorized as “very-poor”; only one was “excellent”. While 57% were advertisements of doctors/clinics; 13% were non-conflict websites. 47% didn’t mention author names. 63% had no date information. Only 2 websites had references. Whereas 83% mentioned risks and disadvantages, only 13% mentioned advantages. 60% didn’t described mechanism of treatment. Other treatment alternatives like clear-aligners were reported only in 10%. 43% mentioned quality of life comprehensively. According to EQIP, only 6% of websites should update their information after 2-3 years, 14% within 6 months, and remaining 80% within 1-2 years.

CONCLUSION: Accurate information about bracket discomfort in first stage of treatment affects the patient’s compliance and approach to treatment; therefore, reliability and validity of internet information is crucial. The present study reflected that the quality of these websites was variable, but generally poor or fair; their information should be updated within 1-2 years. Clinicians should warn patients that websites about braces discomfort might be inadequate and should direct them to higher-quality current websites.

OP – 17

ACCURACY OF BRUSH BIOPSY METHOD IN ORAL MALIGNANCY DETECTION

Bruno Nikolovski¹, Vera Radojkova Nikolovska², Cena Dimova¹, Biljana Evrosimovska³, Sonja Rogoleva Gjurovski¹

¹Faculty of medical sciences, UGD, Stip; ²Faculty of dentistry, UKIM, Skopje;

³University dental clinical centre, St. Pantelejmon, Skopje

Introduction: Despite the numerous innovations in the treatment of malignant diseases in the last 50 years, only 50% of cases achieve a five-year survival. The low survival rate can be attributed to the advanced stage of the disease at the time of diagnosis, as more than 60% of patients come to a medical examination at a more advanced clinical stage of the disease.

In absence of subtler studies performed in our country, we set out the aim of this study - to determine the accuracy, sensitivity (SE), specificity (SP), positive predictive value (PPV) and negative predictive value (NPV) of the cell exfoliative cytology test (brush biopsy) in detecting potentially malignant lesions (PML) and patients with previous oral malignant disease (POMD) compared to the gold standard surgical biopsy.

Material and methods: 60 patients divided into two study groups were examined with brush biopsy and consequently with surgical biopsy, selected under certain inclusion and exclusion criteria.

Results: SE of brush biopsy in the first group of examinees is maximal 100%, as well as the same value in the second one. SP presented 66.67% in the first and 0% in the second group, while the accuracy ranged from 93.33% to 100%.

Conclusion: The accuracy of the methods obtained in our study, sets the thesis that brush biopsy as screening method is enough valuable and may be accompanied by any other less invasive and easy to perform method applicable in the everyday clinical practice.

Key words: oral examination, brush biopsy, potentially malignant lesions, oral cancer.

OP – 18**RELATIONSHIP BETWEEN NASAL MORPHOLOGY AND THE SEVERITY OF OBSTRUCTIVE SLEEP APNEA: A RETROSPECTIVE STUDY****Gokcenur Gokce Kara***Izmir Katip Celebi University*

Introduction: The aim of this study was to compare the nasal morphology of patients with obstructive sleep apnea (OSA) having different degree of severity.

Methods: Forty-eight subjects aged 13-16 participated in this study. Patients were allocated into “mild,” “moderate,” or “severe” OSA groups due to polygraph records. Distance and angle measurements were made on the cephalographs in line with the predetermined parameters. One Way Analysis of Variance was used to evaluate the polygraph and cephalometric results of the cases.

Results: The results showed significant differences between the OSA groups in nasolabial and nasal angles ($p < 0.05$). There were no significant differences in nasal prominence, nasal length, nasal projection and nasal height among the OSA groups ($p > 0.05$).

Conclusion: In cases with OSA of different severity, some changes in nasal morphology were observed. Nasolabial and nasal angles showed significant differences between the OSA groups. As the severity of OSA increased, the nasolabial angle and nasal angle decreased

OP – 19**THE COLOR STABILITY OF TEMPORARY CROWN MATERIALS FABRICATED BY THREE DIFFERENT METHODS**

Burcu Diker, Bahar Elter

BEZMIALEM VAKIF UNIVERSITY

Background: The aim of the present study was to evaluate the color stability of temporary crown materials fabricated by 3 different methods in 3 different immersion liquids.

Methods and materials: A total of 72 disc-shaped specimens were prepared using printable temporary crown material (Temp Print, GC), acrylic milling disc (Vipi Block Trilux, VIPI), and conventional self-curing acrylic material (Temdent Classic, Schütz Dental). Specimens per material were divided into three groups (n=8) according to immersion liquid (distilled water, tea, and coffee solution). After the specimens were stored in distilled water for one-week, initial color values measured with a spectrophotometer (Vita Easyshade Advance 4.0, Vita). The color values were also measured 72 hours after immersion. The color change values between data were calculated based on CIEDE2000 formula. The results were analyzed using two-way analysis (ANOVA) of variance. **Results:** The ΔE_{00} values were significantly affected by the fabrication method-acrylic resin duo and immersion liquid ($p<.05$). The ΔE_{00} values in the printed group were significantly higher than conventional and milled groups ($p<.001$). When the effect of immersion liquid was evaluated, the highest mean ΔE_{00} value (1.8) was seen in the coffee solution. There was a significantly difference between the groups immersed in distilled water and tea ($p=.013$), distilled water and coffee ($p<.001$), tea and coffee ($p=.035$).

Conclusion: 3D printed temporary crown materials showed more discoloration than the milled and conventional self-curing temporary crown materials. The colors of all material groups varied statistically significantly depending on the type of immersion liquid used.

OP – 20**THE EFFECT OF GASTRIC ACID ON THE SURFACE PROPERTIES OF DIFFERENT COMPOSITES**

Cansu Dagdelen Ahisha, Cemile Kedici Alp

Gazi University

The aim of this study is to evaluate the effect of gastric acid on the surface microhardness, surface roughness of different resin based composites. Three different composites (Clearfil Majesty ES-2{Kuraray, Tokyo, Japan}, Beautifil II{Shofu, Ratingen, Germany}, Group Beautifil II LS{Shofu, Ratingen, Germany} were used. Samples were formed by using custommade plexi-glass molds of 5 mm diameter and 2 mm thickness. A total of 30 samples (n = 10) for microhardness tests and a total of 30 samples for surface roughness a total of 9 samples (n = 3) for Scanning Electron Microscopy (SEM). All samples of each group were treated to gastric acid for 7 days and 14 days .The measurements of Vickers microhardness and surface roughness were evaluated at baseline, after 7 days storage in gastric acid and after 14 days. A Vickers microhardness tester was used to evaluate the microhardness of the upper surfaces of each sample. Scanning electron microscopy was used to evaluate the difference on the microstructure of composites. As the difference in the microhardness values of composites was compared, the time-dependent variation in all composites was found to be statistically significant. The most surface roughness and hardness changes has become in beautiful II group. As a result, in in-vitro conditions gastric acid decreased microhardness while increasing the surface roughness of different composites.

OP – 21**EFFECT OF FEMTOSECOND LASER AND HYDROFLUORIC ACID ETCHING ON RESIN BOND STRENGTH TO CAD/CAM MATERIALS**

Yener Okutan¹, Banucicek Kandemir Ipek Acikbas², Hamdi Sukur Kilic², Yasemin Gundogdu³, Munir Tolga Yucel²

¹Aydın Adnan Menderes University, Faculty of Dentistry, Department of Prosthodontics, Aydın, Turkey; ²Selcuk University, Faculty of Dentistry, Department of Prosthodontics, Konya, Turkey; ³Selcuk University, Kadınhanı Faik İcil Vocational High School, Department of Computer Technologies, Konya, Turkey;

Background. The aim of this study was to compare femtosecond laser (FS) irradiation and hydrofluoric acid (HF) etching on the surface roughness and resin bond strength to different all-ceramic materials.

Methods and materials. A total of 120 ceramic specimens (n=10) were prepared to compare the effect of FS and HF on the surface roughness (Ra) and shear bond strength (SBS) of resin cement to four different all-ceramic materials (IPS Empress CAD, IPS e.max CAD, Vita Suprinity and Vita Enamic). The samples were divided into three groups according to the surface treatments performed: no treatment (Control), etching with 4.5% HF and FS irradiation. Ra values of all groups were measured by using a surface profilometer, and one sample per group was examined under a scanning electron microscope. A primer was applied to ceramic surfaces. Standardized resin cylinders were applied to surfaces and then light cured. SBS values of the specimens were measured using a universal testing machine at a crosshead speed of 1 mm/min.

Results. Statistical analyses revealed significant differences between treated and control groups in both surface roughness and shear bond strength. Control groups exhibited the lowest Ra and SBS values. HF groups showed higher mean SBS values than FS groups. The mean SBS value of IPS e.max CAD HF group was higher than those of other ceramics.

Conclusion. HF etching was found to be an important step to prepare bonding surfaces of CAD/CAM materials. FS application has also been observed as an effective method to roughen all-ceramic surfaces.

OP – 22**TREATMENT OF MAXILLARY DEFICIENCY AND OPENBITE USING RAPID MAXILLARY EXPANSION AND HABIT BREAKER COMBINATION THERAPY**

Elif Ozyurek, Leyla Cime Akbaydogan

Orthodontics

Background: This case report presents the treatment of maxillary transverse deficiency and openbite caused by tongue thrust with Rapid Maxillary Expansion (RME) and Habit Breaker (HB).

Methods and Materials: A 12-year-old male patient applied to our clinic because his anterior teeth were not in contact. The patient had a class I molar relationship on the right side and a class III molar relationship on the left side, convex profile because of retruded chin, tongue thrust, anterior open bite and transverse maxillary deficiency were detected in the clinical examination of the patient. As a result of cephalometric analyzes and clinical evaluations, a diagnosis of skeletal class I openbite was made with transversal maxillary deficiency caused by tongue thrust. The RME appliance was activated twice a day for the first week to break the resistance of the sutures and once a day after the sutures were moved. The tongue screen in the anterior also kept the tongue in the correct position. RME-HB combination therapy lasted 8 months. After 4 premolars were extracted and fixed orthodontic treatment was continued.

Results and Conclusion: Total treatment time was approximately 2 years. At the end of the treatment, while the patient had a normal profile, a class I molar relationship and an ideal overjet-overbite relationship were achieved. RME-HB combination therapy can be used as an effective treatment method in the treatment of openbite with tongue thrust and maxillary deficiency.

OP – 23

EVALUATION OF TRANSLUCENCY AND FRACTURE RESISTANCE OF DIFFERENT CAD/CAM RESTORATIONS

Yener Okutan¹, Mustafa Borga Donmez², Banucicek Kandemir³, Munir Tolga Yucel³

¹Aydın Adnan Menderes University, Faculty of Dentistry, Department of Prosthodontics; ²Biruni University, Faculty of Dentistry, Department of Prosthodontics; ³Selcuk University, Faculty of Dentistry, Department of Prosthodontics;

Background. This study aimed to compare the fracture resistance and translucency of restorations fabricated from different CAD/CAM materials.

Methods and materials. Lithium disilicate glass-ceramic (LS2; Amber Mill), zirconia-reinforced lithium silicate ceramic (ZLS; Celtra Duo), and multilayered translucent zirconia (ZR; Katana UTML) were used in this study. A total of 90 (60 LS2, 15 ZLS and 15 ZR) premolar shaped crowns were fabricated. LS2 restorations were divided into 4 subgroups to be crystallized with different temperatures (815 oC: LS2/HT; 825 oC: LS2/MT; 840 oC: LS2/LT; 860 oC: LS2/MO) (n=15). Restorations were cemented onto composite dies by using a self-adhesive dual cure resin cement and then loaded until fracture by using a universal testing device. In addition, 15 rectangular specimens were prepared from each material with a precision saw and color coordinates were measured by using a spectrophotometer over black and white backgrounds. Relative translucency parameter (RTP) was calculated by using the CIEDE2000 formula. Data were analyzed using 1-way ANOVA ($\alpha=0.05$).

Results. ZR showed higher fracture resistance than the other materials, whereas the difference between LS2 and ZLS was nonsignificant. No difference was found among LS2 specimens crystallized at different temperatures ($p>0.05$). ZR exhibited lower translucency level than the other groups, while LS2 was more translucent than ZLS. For LS2, LS2/MO showed the lowest translucency, while LS2/HT was more translucent compared with LS2/LT ($p<0.05$).

Conclusion. Lithium disilicate glass-ceramic used in this study exhibited adequate fracture resistance and translucency. Therefore, this material was found to be promising in terms of clinical use.

OP – 24**EVALUATION OF MOLAR TOOTH MOVEMENTS IN CONVENTIONAL-HYBRIT RAPID MAXILLARY EXPANSION: A SPLINT MOUTH STUDY**

Mucahid Yildirim¹, Leyla Cime Akbaydogan², Mehmet Akin²

¹Necmettin Erbakan University; ²Alanya Alaaddin Keykubat University

Background: Rapid maxillary expansion (RME) is a treatment method in correction of posterior cross-bite by maxillary widening. During the RME treatment heavy forces are applied to the teeth and palatal tissues. In this way midpalatal suture opens with minimal dental movement by transmission of force to the maxillary bone region. These heavy forces provide increasing of upper molar width, upper molar inclination, maxillary basal width in the RME treatment. Researchers have suggested that dental effects will be reduced when bone-borne appliances are used. The aim of this splint-mouth study was to evaluate the skeletal and dental differences between tooth-tissue and bone-borne RME treatment methods via posteroanterior (PA) cephalograms.

Methods and materials: This retrospective study consists of 18 treated patients (ages 11-16 years). A splint mouth design RME appliance was applied to the patients. PA cephalograms were taken before treatment and after 3 months retention period. Maxillary width, maxillary first molar root width and crown width, and maxillary first molar angle to the midline were compared to the other side and with the beginning.

Results: When the intra-group changes during the treatment were compared, a significant increase was found in all values except the first molar root width in the conventional group. In the inter-group evaluation, a significant increase was found in the molar root width in the screw group and in the molar angle in the conventional group. ($p < 0.001$)

Conclusions: While the transversal effects in both regions were almost the same, less molar tipping was detected on the screw side.

OP – 25

PROPERLY PLANNED EXTRACTIONS IN ORTHODOTICS-CASE REPORTS

Vesna Trpevska¹, Ivan Tanatarec², Daniela Srbinoska¹, Aneta Mijoska³, Gordana Kovacevska³

¹Department of Orthodontics, University Dental Clinical Center „St. Panteleimon“, Skopje, Republic of North Macedonia; ²PHO „DR. TANATAREC“, Bitola, Republic of North Macedonia; ³Faculty of Dentistry, Department of Prosthodontics, Skopje, Republic of North Macedonia;

Introduction: Extractions in some cases remain a useful tool to achieve a proper occlusion, however, they must be planned properly.

Aim: Through these case reports examination, considering the many factors we resolve the most common dilemma: to extract or not to extract in order to establish effective treatment plan illustrating the diagnostic and decision-making processes.

Material and method: Non-growing Class II patients with large overjet, proclined upper incisors, convex profile were conducted to extraction treatment plan, compared to patients managed with non-extraction therapy. We did orthodontic treatment for correction of the jaw relation, correction of overjet and providing ideal position of the lower incisors, stable occlusal relationship, improving patient facial profile and smile harmony. Due to the fact that the patients were adults, treatment plan could not include headgears and functional appliances for Class II correction.

Results: We improved patient's lip profile with stable functional occlusion and the retraction of the teeth into the extraction space matched the cephalometric norm values and did not worsen the soft tissue profile.

Conclusion: These clinical cases serve as example of how a proper diagnosis coupled with a compliant patient can result in a treatment that enhances both the patient's aesthetics and function with good control of vertical dimension. The assessment of dental and facial aesthetic is an important factor in the process of orthodontic diagnoses and treatment planning based on the patient's long-term benefit with application of sound biomechanical strategies.

Key words: Extraction, diagnose, long-term benefit, biomechanical strategies.

OP – 26**ORAL CARE AND PREGNANCY**

Nataša Pejčić Barać, Vanja Petrović, Dragana Rakasević, Nina Dimitrijević Jovanović, Zoran Mandinić

School of dental medicine, University of Belgrade, Serbia

BACKGROUND: Early childhood caries, represents a global social, economic and psychological problem. Pregnancy is the best time for timely oral care advice to future mothers. The goal of the oral health care for mother and baby programme education, was to assess the change in attitude and level of knowledge of the participants of this programme after they were exposed to the lectures and educational material.

METHODS AND MATHERIALS: In order to establish their good oral hygiene habits, and to assess their current level of knowledge regarding oral care and healthy eating habits they have filled out a specially designed questionnaire before and after our lectures and workshops.

RESULTS: After analyzing the obtained data it was shown that all of the participants expressed their opinion that they will change their oral care habits. Most of the future mothers believe that early childhood caries can be prevented by good oral hygiene habits in infants and young children. Surprisingly, 60% of future mothers had an opinion that brushing teeth in children should start between the first and third year. 30 % of mothers changed their attitude towards the benefits of the age 1 dental appointment.

CONCLUSION: Early childhood caries is a serious public health problem, which is largely influenced by the insufficient knowledge of prevention options and risk factors by parents. It would be most effective for future mothers to get acquainted with the importance and ways of maintaining oral health in children during pregnancy.

OP – 27**ASSOCIATION BETWEEN ODONTOGENIC CONDITIONS, NASAL SEPTUM DEVIATION AND MAXILLARY SINUS MUCOSAL THICKENING****Kevser Dinç, Füsün Yaşar*****Selcuk University Faculty of Dentistry***

Background: In this study, it is aimed to assess the association between maxillary sinus mucosal thickening with some of the odontogenic conditions and nasal septum deviation using CBCT images.

Methods and Materials: CBCT images of 150 patients (71 female, 79 male; mean age: 43.57) were evaluated for the mucosal thickening, missing teeth, periapical lesion, root filling and nasal septum deviation. Maxillary sinus mucosal thickening was classified as grade 1: normal (< 2 mm), grade 2: moderate (2–10 mm), and grade 3: severe (> 10 mm). The presence of root canal fillings and the periapical lesions of these teeth were also recorded. Nasal septum deviation was evaluated from CBCT images and recorded as present (1) or absent (0). SPSS was used for the statistical analysis.

Results: The mean age of the patients was 43.57. There was a correlation between mucosal thickening and age ($r: .280^{**}$), missing teeth ($r: .296^{**}$), periapical lesion ($r: .361^{**}$) and root canal filling ($r: .243^{**}$). Nasal septum deviation has no correlation with sinus mucosal thickening. The frequency of mucosal thickening was as follows: grade 1 for the right side was 59.3% and 56% for the left side; grade 2 for the right side was 18.7% and 21.3% for the left side; and grade 3 was 22% for the right side and 22.7% for the left side.

Conclusion: Various odontogenic conditions such as periapical infection, root canal treatment, missing teeth and age may have an effect on the occurrence of mucosal thickening in the maxillary sinus.

OP – 28**EVALUATION OF THE RELATIONSHIP BETWEEN IMPACTED MANDIBULAR THIRD MOLAR AND MANDIBULAR CANAL WITH CBCT****Elif Altun, Füsün Yaşar***Selcuk University Faculty of Dentistry*

Background: The aim of the present study is to classify the three-dimensional relationship between the impacted mandibular third molar and the mandibular canal on CBCT images.

Methods and Materials: CBCT images of 150 patients having impacted mandibular third molars were evaluated for the position of the mandibular canal relative to the mandibular third molar (categorized into four groups; canal locates apically: 1, canal locates buccally: 2, canal locates lingually: 3, canal is interradicular position: 4) and the contact relation of the mandibular third molar roots with the mandibular canal (classified into three conditions; have a contact with the upper border of the canal: 5, in the canal: 6, no contact with the canal: 7). The frequency tables and chi-square tests were performed by using SPSS program.

Results: Mandibular canal was generally located apical of the impacted teeth (Frequencies are as follows; Right: 60.6%, Left: 49.1%). The root apices of the third molars were generally in contact with the upper border of the canal (Frequencies are as follows; Right: 73.1%, Left: 63.6%). The roots were in the canal in 12.5% on the right side and 18.2% on the left side. Age does not have any effect on the teeth and root positions with the mandibular canal on both sides. However gender have an effect on the position of teeth on the right side (p: 0.012) but not on the left side.

Conclusion: Anatomic relation of the mandibular third molar and its roots with the mandibular canal is important during surgery.

OP – 29**EVALUATION OF THE ANATOMICAL RELATIONSHIP OF MAXILLARY POSTERIOR TEETH WITH MAXILLARY SINUS WITH CBCT****Duygu Kaymak, Füsün Yaşar***Selcuk University Faculty of Dentistry*

Background: Maxillary premolar and molar teeth have close proximity with the sinus floor and surgery in this region can result in accidental oro-antral communication or sometimes the roots may already be within the sinus. The aim of this study was to assess the relationship between the maxillary sinus floor and the maxillary posterior teeth root tips using dental cone-beam CT.

Methods and Materials: The relation of maxillary premolar and molar teeth root tips with the sinus floor was evaluated with CBCT images of 150 patients (female:86; male: 64; mean age:33.06) Roots which were outside and not contacting the sinus floor were coded as 1; roots which are not in the sinus but are in contact with the sinus floor were coded as 2 and root tips which are within the sinus were coded as 3. SPSS was used for the statistical analysis.

Results: Right maxillary second molars' mesial root tips (27.2%) and right maxillary second molars' distal root tips (23.8%) had the highest frequency of being inside the sinus and left maxillary second molars' mesial root tips (17.9%) and left maxillary molars' distal root tips (16.6%) were following them. Maxillary first premolars with single root were never within the sinus. While age was an important influencing factor for some of the root tips being within the sinus, gender had no effect.

Conclusion: The maxillary second molars showed greater proximity to the MSF than premolars. Age had significant impacts on the relationship between maxillary posterior roots and MSF.

OP – 30**CLASSIC AND MINIMAL INVASIVE SURGICAL IMPLICATIONS IN ORAL IMPLANT-PROSTHETIC REHABILITATION OF EDENTULOUS PATIENTS****Norin Forna, Doriana Agop-Forna, Norina Forna***UMF “Grigore T. Popa” Iasi, Romania*

Classical bone grafting techniques based on large incisions and flapping of soft tissues were associated discomfort and long postoperative time to allow alveolar bone regeneration before placement of the dental implant. Minimally invasive surgical techniques can replace classic pro-implant techniques with benefits as follows: ideal for high-risk patients with high-risk systemic diseases (hemostasis disorders, diabetes), less pain and discomfort, less anxiety. The pro-implant surgical stage must be planned according to systemic status, periodontal condition, status of mucosal and bone tissues, level of oral hygiene, cognitive skills, psychological state of the patients as well as the compliance of patients to the programmed check-up sessions. The pre-treatment computer guided planning assisted by specialized software is a requested tool for the minimal invasive approach. The implant-prosthetic rehabilitation assisted by lasers responds to the minimally invasive surgical approach, especially in the fields of implantology and oral surgery. The use of lasers increases both comfort and patients' compliance as well as minimally damage of hard and soft tissues, ensures faster healing after surgical procedures, and significantly decrease the post-operative complications rate.

OP – 31**PROSTHODONTIC REHABILITATION IN ADULT PATIENT WITH ANTERIOR OPEN BITE-CASE REPORT**

Gordana Kovacevska¹, Vesna Trpevska², Biljana Koseva³, Aleksandar Kovacevski⁴, Aneta Mijoska¹

¹Faculty of Dentistry, Department of Prosthodontics, University Dental Clinical Center „St. Panteleimon“, Skopje, Republic of North Macedonia; ²Department of Orthodontics, University Dental Clinical Center „St. Panteleimon“, Skopje, Republic of North Macedonia; ³PHO Progressive Dental, Skopje, Republic of North Macedonia; ⁴PHO Impacta Dental, Skopje, Republic of North Macedonia

Introduction: Anterior open bite in adults is known as one of the most challenging and aesthetic problem in orthodontics which results in a poor aesthetic appearance for the patients. Anterior open bite can be treated with interdisciplinary approach, but due to the fact that it's orthodontic correction is more time consuming and has tendency to relapse and patient's time constraints, prosthodontic rehabilitation was considered the most suitable treatment option.

Aim: The aim of this case report is to describe prosthodontic rehabilitation by camouflage with four CAD/CAM crowns as a treatment option for smile makeover in adult patient with destroyed upper front teeth and limited by options due to time constraint.

Material and method: Adult patient, 46 years old came to our clinic with chief complaint of functional and facial aesthetic problem. She had anterior open bite caused by vertical disharmony and bad posture of her tongue. Due to the open bite she had bad posture of her lower lip and that caused hypertrophy on the lip. She revealed bad phonation and problems with her speech. After intraoral and extraoral examination we made four CAD/CAM crowns composed of IPS e.max® ZirCAD MT Multi as the most esthetic, high strength multi-translucent zirconia material.

Results: With this prosthodontic correction anterior teeth were brought into occlusion, with good functional occlusion and pleasing smile aesthetics.

Conclusion: Despite the fact that orthodontic treatment is best treatment modality for such case, we achieved aesthetic makeover by prosthodontic camouflage according to the patient need to do dentofacial improvement in short period of time.

Key words: Anterior open bite, adult patient, prosthodontic rehabilitation, CAD/CAM crowns.

OP – 32

AESTHETIC RESTORATION OF ENDODONTICALLY TREATED TEETH

Sasho Jovanovski¹, Sanja Panchevska¹, Aneta Mijoska¹, Andrej Jovanovski², Ljubo Marion²

¹Faculty of Dental Medicine, University Ss. Cyril and Methodius, Skopje, Macedonia; ²Faculty of Medicine, University of Ljubljana;

Statement of problem. Results for esthetic restoration and fracture strength of endodontically treated teeth (ETT) vary in literature. Further research is required for consistent values.

The Purpose of this study was to investigate esthetic restoration with a new ferrule design and zirconia posts, upgraded with different core materials.

Material and methods. 72 extracted maxillary incisors were divided into 6 groups of 12. For Groups A1/2/3 and Groups B1/2/3 were used Ø=1.6mm zirconia VALLPOST (WALL-CERd.o.o.Slovenia), with retention forms in the coronary part upgraded with MultiCore, and IPS-EmaxCores (Ivoclar).

Groups A1/B1 represented teeth without (0mm), A2/B2 with 1mm, and A3/B3 with 2mm inner ferrule preparation. The specimens were cemented (Multilink Automix), embedded in acrylic resin blocks (ProBase Polymer/Monomer) and loaded at an angle of 45° (Instron Testing Machine 4301-USA) at a crosshead speed of 1mm/min until fracture. Fracture loads and modes (repairable or catastrophic) were recorded and were analyzed (Carl Zeiss, Microscope Stereo Discovery V.8-Germany).

Results. The mean values (±SD) of fracture loads (N), for groups A1/2/3 (Ø=1.6mm zirconia posts and MultiCore) were: A1=373,17N (±49.04); A2=393.03N (±73.11) and A3=618.79N (±112.21), and for Groups B1/2/3 (Ø=1.6mm zirconia posts and IPSe-maxCores) were: B1=503,09N (±109.01); B2=567.06N (±134.37) and B3=861.06N (±237.15).

Conclusion. The 2mm inner ferrule preparation and retentive coronal part of the zirconia posts contributes to increasing the fracture resistance of the restored teeth in all groups and reduce the severity of root fractures significantly, regardless of the different core material.

OP – 33**ORAL MANIFESTATIONS OF COVID-19: A LITERATURE REVIEW****Alma Kantardžić*****Private practice***

The appearance of a new type of virus - severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and infection called coronavirus disease 2019 (COVID-19) have caused numerous changes in health care, as in practical terms and in terms of new scientific and clinical dilemmas. Clinical manifestations of COVID-19 are very diverse, and also some oral manifestations have been observed. Due to contagiousness, morbidity and mortality rates, monitoring oral manifestations during the pandemic was very difficult. The question was also raised whether the observed manifestations in the oral cavity are the result of direct action of the virus or occurred due to immune mechanisms or due to impaired oral hygiene. The presence of angiotensin-converting enzyme-2 on oral epithelial cells and salivary glands suggests a special susceptibility of oral mucosa to infection or the presence of a reservoir of virus in the oral cavity, in symptomatic and asymptomatic infection. The aim of this paper is to review the most frequent and significant changes in the oral cavity observed in patients with COVID-19 infection. Although there has been a significant reduction in morbidity and mortality, the SARS-CoV-2 virus will certainly continue to be present in our daily lives and practice. The occurrence of manifestations in oral cavity should increase the alertness of dental practitioners.

Key words: COVID-19, oral manifestations.

OP – 34**EVALUATION BETWEEN NON METAL POSTS AND DIFFERENT TYPES OF CEMENTS**

Vesna Jurukovska Shotarovska, Saso Jovanovski, Marjan Petkov, Biljana Evrosimovska, Aneta Mijoska

University Ss. Cyril and Methodius, Faculty of Dental medicine Skopje, North Macedonia;

Introduction: Non metal posts have long-lasting and reliable retention of the crown or bridge. Aim: The aim of this study is to demonstrate the adhesion of different posts fiber and zirconium, cemented with different cements Multilink Automix (MLA)- Ivoclar Vivadent, and RelyX Unicem 2 automix (RLX)-3M ESPE.

Material and method: For this study, we used two types of resin cements: Multilink Automix (MLA)- Ivoclar Vivadent, and RelyX Unicem 2 automix (RLX)-3M ESPE, 60 zirconium post and 60 fiber post with different diameter d1=1,2; d2=1,35 and d3=1,5 , and extracted incisors. Zirconium posts were applied in every sample and were cemented with two types of resin cements. The Pull-out test, was applied on the prepared samples.

Results :The extraction power of zirconium and fiber posts cemented with RelyX Unicem 2 Automix cement showed the best results with diameter d3, compared to other diameters d1 and d2. Conclusion:It is important that the applied resin cements play a special role in the retention and adhesion of the post system in the root part of the tooth.

Key words: Zirconium post, fiber post, resin cements

OP – 35**INVESTIGATION OF CHANGES IN LOWER ANTERIOR FACIAL SOFT TISSUE IN ORTHODONTIC TREATMENTS WITH FOUR PREMOLAR OR TWO PREMOLAR EXTRACTION**

Taner Ozturk, Gokhan Coban

Erciyes University, Faculty of Dentistry, Department of Orthodontics

Aim: The aim of the study is to examine and compare the changes in the lower anterior facial soft tissue structure caused by premolar extraction orthodontic treatments in four quadrants or only in the upper two quadrants.

Materials and Methods: Thirty patients (17 females, 13 males) of first premolar tooth extraction in four quadrants (Group-4X4; N=15) or only in the upper two quadrants (Group-14x24; N=15) due to severe crowding in the lower and/or upper dentition were included in the study. At the end of the treatment, cases with class I molar and canine relationship and ideal overbite and overjet were selected. In order to evaluate the facial soft tissues, tissue thicknesses in the Subnasale (Sn), Labiale superius-(Ls), Stomion-(Sto), Labiale inferius-(Li), Labiamentale-(Lm), Pogonion-(Pog') and Gnathion-(Gn') regions were measured on lateral-cephalometric radiographs in pre-treatment and post-treatment time-points. Radiographs were evaluated using the Dolphin Imaging Software.

Results: There is no difference between the treatment duration of the two groups. In both groups, Ls and Sto increased significantly compared to pre-treatment ($p < 0.05$). While there was no difference between the groups before the treatment, the Sto and Lm values were significantly higher in the 14x24 group at the end of the treatment ($p < 0.05$). When the changes that occurred with the treatment between both groups were examined, Sto and Li decreased significantly in the 4x4 group, but increased in the 14x24 group ($p < 0.05$).

Conclusion: In premolar extraction orthodontic treatments, a change in the form of thickening occurs in the soft tissue, especially in the upper lip and stomion areas.

OP – 36**INVESTIGATION OF REASONS FOR REFERRAL TO THE EMERGENCY CLINIC IN THE DEPARTMENT OF PEDIATRIC DENTISTRY**

Husniye Gumus, Gulce Ozturk

Erciyes University, Faculty of Dentistry, Department of Pediatric Dentistry

Aim: The aim of this study is to evaluate the reasons why patients who applied to the pediatric department of dentistry in the last year were referred to the emergency clinic.

Materials and Methods: The data of children aged 1-14 years who were referred to the emergency clinic in the department of pediatric dentistry within one-year (2020-2021) were analyzed. Age, gender, and referral to the emergency clinic of the patients were evaluated.

Results: It was determined that a total of 456 patients (259 females and 197 males) were referred to the pediatric dentistry emergency clinic within a year. The mean age of the patients was 9.53 ± 2.63 . It was determined that the most common reason for referral of pediatric patients to the emergency clinic was deep dental caries (63.4%) and most of them were permanent teeth (85.1%). In addition, treatment of space maintainer (17.1%) and a history of dental trauma (8.6%) were also found to be among the frequent reasons for referral. It was determined that 76.9% of the patients referred for treatment of space maintainer were between the ages of 6-9 and dental traumas were frequently seen in permanent teeth (84.6%).

Conclusion: Most of the patients referred to emergency dental treatment are school-age children, and they are often referred for deep caries. It is recommended to increase protective and preventive practices in order to improve the oral health of children.

OP – 37

ANTIBACTERIAL EFFECTS OF OZONE THERAPY IN ENDODONTIC SURGERY: A PILOT STUDY

Jelena Krunić¹, Saša Dabić², Irena Mladenović¹, Nikola Stojanović¹, Slavoljub Tomić¹

¹Faculty of Medicine Foča, University of East Sarajevo, Republic of Srpska, Bosnia and Herzegovina; ²Private practice “Implantodent”, Banja Luka, Republic of Srpska, Bosnia and Herzegovina;

BACKGROUND: DISINFECTION OF RESECTED ROOT SURFACES HAS THE POTENTIAL TO IMPROVE THE OUTCOME OF ENDODONTIC SURGERY. OZONE THERAPY HAS BECOME A PROMISING APPROACH IN TREATMENT OF ORAL INFECTIOUS CONDITIONS. EVEN THOUGH OZONE THERAPY IS EXTENSIVELY APPLIED IN SITUATIONS IN WHICH DISINFECTION IS NECESSARY, NOT MUCH IS KNOWN ABOUT IT EFFECT DURING ENDODONTIC SURGERY.

THE AIM OF THIS PILOT STUDY IS TO EVALUATE ANTIBACTERIAL EFFECTS OF GASEOUS OZONE DURING ENDODONTIC SURGERY.

METHODS AND MATERIALS: TEN TEETH WITH POSTTREATMENT APICAL PERIODONTITIS CONSECUTIVELY TREATED BY ENDODONTIC SURGERY WERE ENROLLED IN THIS STUDY. AFTER APICOECTOMY, THE ROOT END WAS TREATED WITH GASEOUS OZONE. BACTERIOLOGIC SAMPLES WERE TAKEN FROM ROOT SURFACE BEFORE AND AFTER OZONE APPLICATION. SAMPLES WERE ANALYZED FOR THE TOTAL BACTERIAL AND STREPTOCOCCUS SPP. COUNTS, USING QUANTITATIVE REALTIME POLYMERASE CHAIN REACTION. THE REDUCTION IN BACTERIAL COUNTS WAS ANALYZED USING THE WILCOXON SIGNED RANK TEST.

RESULTS: THE MICROBIOLOGICAL SAMPLES CONFIRMED THE PRESENCE OF INFECTION IN ALL TEETH. OZONE THERAPY SIGNIFICANTLY REDUCED THE TOTAL BACTERIAL COUNTS FROM ROOT SURFACES ($P < 0.05$). THE NUMBER OF STREPTOCOCCUS SPP. WAS REDUCED AFTER OZONE APPLICATION, BUT OUT OF STATISTICAL SIGNIFICANCE.

CONCLUSION: THE OBTAINED RESULTS SUGGEST THAT THE USE OF GASEOUS OZONE SIGNIFICANTLY REDUCED NUMBER OF BACTERIA AT THE CUT SURFACE AREA DURING ENDODONTIC SURGERY.

OP – 38**EFFECTS OF LACTOBACILLUS REUTERI LOZENGES IN NONSURGICAL THERAPY OF PERIODONTITIS**

Zerina Hadžić¹, Enes Pašić²

¹Private dental practice; ²The faculty of dental medicine with clinics, University of Sarajevo, Sarajevo

Objectives

This study aimed to evaluate the effects of Lactobacilli reuteri lozenges as an adjunctive therapeutic agent in combination with scaling and root planing in a randomized, clinical trial of volunteers with periodontitis grade IV.

Materials and methods:

The study included 40 patients diagnosed with periodontitis divided into 2 groups of 20 patients by random sample method. The first group of patients used Lactobacillus reuteri lozenges after nonsurgical periodontal therapy for a period of 40 days while the second group of patients was treated with nonsurgical periodontal therapy without lozenges. Periodontal clinical parameters were registered for all patients before treatment and after 40 days. Samples of saliva from patients before and 40 days after treatment were analyzed by the ELIZA method for pathogens Aggregibacter actinomycetemcomitans, Porphyromonas gingivalis, and Prevotella intermedia.

Assessments were made on day 0 before treatment for patients of both groups and after 40 days.

Results:

For the group of patients who received Lactobacillus reuteri lozenges following scaling and root planing periodontal therapy showed a significant reduction of pathogens Aggregibacter actinomycetemcomitans, Porphyromonas gingivalis, and Prevotella intermedia in saliva samples.

Conclusion:

The present study confirms the positive effects of L. reuteri lozenges after non-surgical periodontal therapy and the maintenance phase of periodontal treatment. Considering the beneficial effects of probiotics, L.reuteri could serve as a useful adjunct or maybe even as an alternative to periodontal treatment when scaling and root planing might be contraindicated or has to be postponed. Further studies are required on this subject.

Keywords:Periodontitis, Lactobacillus, Pathogens.

OP – 39**AN ALTERNATIVE OF MISSING TEETH-FIBER REINFORCED COMPOSITE BRIDGES: 3 CASE REPORTS****Ayşenur Altuğ Yildirim, Mine Betül Üçtaşlı*****Gazi University Faculty of Dentistry Department of Restorative Dentistry***

Replacing missing teeth is important for restoring aesthetics and function. Implant treatments and traditional prosthetic crown bridge applications are frequently used treatment methods to replace missing teeth. These treatments are invasive, require multiple chairside, and are costly options. Maryland-like bridges are among the temporary treatment options for single-tooth loss or short span. Minimally invasive approaches are increasing in popularity in today's dentistry. In recent years, the success of non-invasive and minimally invasive treatments has increased with the developments in adhesion techniques and the improvement of resin-based materials. Fracture strength and resistance increase when composite resin bridges are used together with fibers. In this way, fiber-reinforced composite bridges have become an alternative to conventional treatments as a temporary or permanent solution for anterior or posterior single tooth loss or short span. Fiber-reinforced composite bridges come into prominence because of minimally invasive cavity preparation on abutment teeth, preservation of pulp and periodontal tissues, and low cost, aesthetic and functional results in a single session. Missing teeth can be permanently or temporarily rehabilitated with fiber-reinforced composite bridges in patients who cannot be implanted or treated with traditional prosthetic approaches due to many reasons.. The aim of this case series is to describe the aesthetic and functional rehabilitation of single tooth loss or short span in the anterior and posterior region with fiber-reinforced composite bridge restorations in 3 different patients.

OP – 40**IMPLANT SUPPORTED ESTHETIC RESTORATIONS WITH DIGITAL WORKFLOW: CASE SERIES**

Mine Helvacioğlu Özkardeş, Sevda Miray Soydaş Smail, Erkut Kahramanoğlu

Marmara University

Background

Loss of a single tooth may cause functional and esthetic deficits which can be treated by tooth-supported restoration or single-tooth implant options. In our study three different patient had such problem, has treated by CAD/CAM designed implant supported crowns.

Methods and Materials

Patients have applied to Marmara University Faculty of Dentistry, complaining about loss of single tooth in the maxillary esthetic arch. Edentulous areas are planned to be rehabilitate by implant supported restorations with different abutment and crown types. After osseointegration period, prosthetic applications were planned through esthetic parameters. Intraoral scanning was completed with cerec omnica device. Digital workflow allows us to make multiple procedures such as diagnostic wax up, mock up and providing patients' esthetic expectations rapidly without doubts. Twenty nine years old male patient has treated by hybrid ceramic abutment and crown, 22 years old female patient has treated by ti-base abutments and ceramic crowns and 30 years old female patient has treated by ti-base abutment and ceramic crown.

Results

After one year period; the clinical and radiographic examinations showed that implant supported crowns provided successful results. The patient satisfaction was high at 1 year evaluation due to treatment comfort, gingival health and colour stability.

Conclusion

The major benefits of CAD/CAM technology are production costs, improvement in producing time and avoiding esthetic and functional failures by seeing the final configuration of the prosthesis. As a conclusion this technology shows successful clinical and radiographic results.

OP – 41**TREATMENT OF ORAL HYPERPIGMENTATIONS: TWO CASES REPORT**

Tunahan Mustafa Ceylan, Abdulsamet Tanık

Adiyaman University, Faculty of Dentistry, Department of Periodontology

Introduction:

Hyperpigmentation is caused by the increase in the pigment called melanin, which gives the skin its color. The cause of pigmentations in the oral cavity can be exogenous or endogenous. Exogenous pigmentations; can be caused by drug use, tobacco use, amalgam tattooing, or heavy metals. Endogenous pigmentations can be caused by endocrine disorders, syndromes, etc.

Case Report:

Our first patient, who applied to Adiyaman University Faculty of Dentistry, Department of Periodontology with the complaint of hyperpigmented gingiva, is a 20-year-old male and systemically healthy. The reason for the hyperpigmented areas on the gingiva was that the patient was dark brown and used tobacco. After local anesthesia was given to the patient, the hyperpigmented areas on the gingiva were first removed with a diamond round bur. Tissue irregularities in the deepithelialized areas were then arranged with a scalpel. The wound area was covered with a surgical paste. Surgical areas regained their healthy appearance in two weeks.

Our second patient, who applied to Adiyaman University Faculty of Dentistry, Department of Periodontology with the complaint of hyperpigmented gingiva, is a 38-year-old female and systemically healthy. The reason for the hyperpigmentation in the patient's gingiva is the patient's tobacco use. After local anesthesia was given to the patient, the hyperpigmented areas on the gingiva were first removed with a diamond round bur. Tissue irregularities in the deepithelialized areas were then arranged with a scalpel. The wound area was covered with a surgical paste.

Conclusion:

In this case report we will describe the depigmentation operation we performed with a diamond bur and a scalpel. Depigmented areas regain their normal color 14 days after the operation.

OP – 42**EFFECTS OF OZONE ON THE PALATAL WOUND HEALING. A CASE REPORT.**

Merve Cingoz, Metin Calisir

Adiyaman university, faculty of dentistry, department of periodontology

Background:

Ozone gas has a high oxidation potential and is used as an antimicrobial agent against bacteria, viruses, fungi and protozoa. It also has the capacity to stimulate blood circulation and immune response. These properties justify the interest in its application in medicine and dentistry and are indicated for the treatment of 260 different pathologies. Ozone is a gas known for its antibacterial, antiviral and antifungal properties and is widely used in medicine and dentistry. Medical ozone can improve microcirculation and has anti-inflammatory, analgesic and immunomodulating properties. All these features qualify medical ozone as a valid candidate in clinical dentistry, especially for the treatment of soft tissues. From a pharmacological point of view, ozone therapy follows the principle of hormesis: it is highly effective at lower concentrations, but can be ineffective and even toxic at higher doses. At low doses, this potent oxidizing agent stimulates endogenous antioxidant activity and interleukin and leukotriene production, resulting in a reduction in inflammation and pain.

Case Report:

Full thickness connective tissue was removed from the hard palate during the previous medical operation of a 73-year-old male patient. The operation area was admitted to our clinic with necrosis. This necrotic area was 2 cm long, 1.5 cm wide, and several mm deep. It was applied two days apart for 10 days.. After 30 days, improvement was observed in the patient. It was observed that the blood supply increased in the lesion area and the color returned to normal.

OP – 43**NECROTIZING ULCERATIVE PERIODONTITIS:CASE REPORT****Busra Kasikoglu, Abdulsamet Tanik***Adiyaman University, Faculty of Dentistrt, Department of Periodontology***Introduction:**

Necrotizing ulcerative periodontitis is an acute gingival disease accompanied by symptoms such as pain, severe bleeding in the gums, tenderness, and necrosis in the gingival papilla, attachment and bone loss. Factors such as malnutrition, stress, smoking, and intense physical exertion are effective in the development of nup.

Case report:

A 27-year-old female patient who applied to the Department of Periodontology of the Faculty of Dentistry of Adiyaman University with the complaint of severe pain and spontaneous bleeding in the gums, reported that she was in intense working conditions under psychological stress. In the first session, the patient's mouth was rinsed with 3% hydrogen peroxide diluted by 50%.

The necessary oral hygiene training was given in detail. In the second session supra gingival and subgingival scaling was performed under local anesthesia. No inflammatory or acute condition was observed in the gingival tissues in this process. At the last stage of the treatment, the patient was referred to the psychiatry clinic for psychological stress management.

Conclusion

Oral hygiene of the patient is very important in necrotizing ulcerative periodontitis. Oral care of such patients is generally not very good. The patient was motivated about oral hygiene. The patient should be followed up frequently.

OP – 44**DOES RAPID MAXILLARY EXPANSION AFFECT THE NASAL SEPTUM DEVIATION? A COMPREHENSIVE LITERATURE REVIEW**

Sukriye Gizem Ceylan¹, Mehmet Ali Yavan¹, Mehtap Koparal²

¹Adiyaman University Faculty of Dentistry Department of Orthodontics; ²Adiyaman University Faculty of Medicine

Background: The aim of this comprehensive review was to shed light on effects of rapid maxillary expansion (RME) protocol on nasal septum deviation. **Methods and materials:** A literature search was conducted using the following keywords ‘rapid maxillary expansion’, and ‘nasal septum’. Seven studies and one case series were identified regarding the effect of RME on the nasal septum. Three studies included surgical-assisted and three studies included conventional RME procedures. One study compared conventional and surgical-assisted RME, while another study examined the effect of RME on the nasal septum in patients with cleft lip and palate. All studies were carried out on computed tomography images.

Results: While two of the conventional RME studies reported a significant reduction in deviation, two studies did not find a significant change in nasal septum position. All four studies involving surgical-assisted RME reported no significant change in nasal septum position. It has also been reported that the surgical-assisted and conventional method did not make a significant difference in terms of nasal septum position. Following RME, no changes were observed in the nasal septum in patients with cleft lip and palate also.

Conclusion: While surgical-assisted RME has no significant effects on the nasal septum in adults, conventional RME may have a straightening effect on the nasal septum in growing individuals.

OP – 45

RELATIONSHIP BETWEEN BRUXISM, TINNITUS, TMD AND DENTOFACIAL MALOCCLUSIONS-CASE REPORT

Daniela Srbinoska¹, Vesna Trpevska¹, Aneta Mijoska²

¹Department of Orthodontics, University Dental Clinical Center “St. Panteleimon; ²Faculty of Dentistry “St. Kiril and Metodij” Department of prosthodontic Skopje;

Introduction: The frequent concurrence of tinnitus, temporomandibular joint and masticatory muscle disorders and bruxism has led to the assumption that a possible relationship exists between these conditions. Dental malocclusions (deep bite, posterior crossbite and open bite) commonly considered to be a major risk factor for TMD.

Aim: The aim of this article is to report different disorders (TMD, Bruxism and tinnitus) associated in a single case and show each other correlation.

Materials and Methods: Female patient, 28 years old, presented with buzzing in the ears, difficulty in mastication, associated with pain of the left TMJ, cervical pain, facial asymmetry, masticatory muscles tender to palpation and hypertrophy of the right masseter muscle, limited mouth opening, non-coordinated mandibular movements and shifted midline. Facial asymmetry was indication for cephalometric posteroanterior (PA) radiograph. The length of right ramus mandible is bigger than left for 3mm, leading to facial asymmetry and deviation of occlusal plane. The initial therapy was use day-night time individual upper soft occlusal splint (except chewing) and exercises for body relaxation and myofunctional exercises were recommended.

Results: After three months of treatment, the patient reported improvement in tinnitus (buzzing appears rare) and decreased pain after chewing. The patient felt more comfortable after practising the exercises.

Conclusion: We can conclude that this type of therapy leaded in improvement in all symptoms. Skeletal asymmetries were compensated by the soft tissues like in this case until the hypertrophy of masseter muscle became obvious.

Key words: Bruxism, Tinnitus, Dental malocclusions, TMD.

OP – 46**EFFECT OF HYDROTHERMAL AGING ON FLEXURAL STRENGTH OF STABILIZED ZIRCONIA WITH DIFFERENT CONTENT OF YTTRIUM**

Ayşe Koçak, Cennet Elçin Sağirkaya

ORDU UNIVERSITY FACULTY OF DENTISTRY

Purpose: To evaluate the effect of hydrothermal aging on the flexural strength, phase changes and grain sizes of zirconia materials with 4 different contents after different sintering processes.

Materials and Methods Prepared zirconia specimens (3Y-TZP: Zolid[Z]; 4Y-TZP: Zolid HT+ Preshade[H], Gen-X Multilayer[G]; 5Y-TZP: Zolid FX Multilayer[F]; Amann Girrbach AG; n=160, n=40/group) were sintered in a high-speed sintering protocol (1580°C-10 min, n=80)[R] or a conventional sintering protocol (1450°C-2h, n=80)[S]. The four-point bending test were applied for each group of samples without aging (n=10)[C] and hydrothermal aging (10h at 134°C, 0.2MPa pressure, n=10)[A] with a universal testing machine at a crosshead speed of 1mm/min. Data were analyzed statistically using three-way analysis of variance (ANOVA) and Tukey HSD tests. XRD analysis was performed on a sample for each group. The grain sizes were examined by scanning electron microscopy (SEM).

Results: As a result of the three-way analysis of variance test, the effects of the material type, sintering procedure, aging process and interactions on four-point bending test values were found to be statistically significant ($p<0.05$). For all materials, the highest flexural strength values were showed in the ZSC group (341.41 ± 54.47 MPa), and the lowest flexural strength values were in the FSA group (167.97 ± 20.07 MPa).

Conclusion: As shorter sintering times represent a cost and time efficient alternative, high-speed sintering is a valid alternative to conventional sintering protocols.

Keywords: Zirconia, rapid sintering, hydrothermal aging, low temperature degradation, four point bending test.

OP – 47

EVALUATION OF WATER ABSORPTION AND WATER SOLUBILITY OF DIFFERENT CURRENT POSTERIOR COMPOSITE RESIN MATERIALS**Çiğdem Küçükeşmen¹, Büşra Kaya Taştan¹, Cenker Küçükeşmen²**

¹Demirel University, Faculty of Dentistry, Department of Pediatric Dentistry, Isparta, Turkey; ²Demirel University, Faculty of Dentistry, Department of Prosthetic Dentistry, Isparta, Turkey

Background: In this in vitro study, it was aimed to evaluate and compare the levels of water absorption and the water solubility of two different posterior composite resin materials currently.

Method And Materials: A micro hybrid posterior composite resin, (Filtek™ Z250, 3M ESPE, St Paul, MN, USA) and a condensable posterior composite resin, (Alert™, Pentron, Orange, CA, USA) materials were tested in the study. Silicone molds (with 8 mm diameter and 2 mm thickness) were used for preparing of samples of both materials for the water absorption and the water solubility tests. For each composite resin group, 14 samples were prepared and totally 28 samples were used for both groups in the study.

Results: For evaluation of this in vitro study, all samples were determined to 'ISO 4049 Standards'. The samples of Alert™ material showed greater water absorption values than the values of samples of Filtek™ Z250 material, although not significant statistically ($p=0.183$; $p>0.05$). The water solubility values of the samples of Alert™ material were found statistically higher than the values of samples of Filtek™ Z250 material ($p=0.00$; $p<0.05$).

Conclusion: For both current posterior composite resin materials, the values of all samples after the water absorption and the water solubility tests were found far below the standard limits when they were determined according to 'ISO 4049 Standards'.

OP – 48**FULL-ARCH FIXED OVERDENTURE IN LOWER JAW – IMMEDIATE SOLUTION FOR EFFICIENT MASTICATION**

Aneta Mijoska¹, Sasho Jovanovski¹, Natasha Stavreva¹, Daniela Srbinoska², Vanko Spirov²

¹Faculty for Dental Medicine, Department for prosthodontics, University St. Cyril and Methodius, Skopje, North Macedonia; ²University Dental Clinical Centre St. Panteleimon Skopje, Macedonia;

Background Complete anodontia and alveolar ridge resorption are responsible for lack of retention and stabilization of conventional acrylic lower denture. Immediate hybrid denture on 4 implants is therapeutic solution which provides patients better chewing and increased effective masticatory force. The study aims to assess the functional and subjective treatment outcomes of full-arch fixed overdenture hybrid rehabilitation.

Material and methods The masticatory force in the chewing center, in the projection of the distally placed implant was measured 3 times. The force of the muscle elevators and depressors of the mandible was measured in 60 patients with hybrid prostheses-overdentures on 4 implants. Sensors were placed in acrylic bite templates and the force value was registered with an electrognathic dynamometer.

Results The mean masticatory forces measured in the chewing center before implants and prostheses were 95.7 N. One month later with the prosthesis the value was increased to 185.6 N and after 18 months 186.2 N. Average values of forces in natural teeth are 487.6 N, which is an advantage of a natural tooth over an implant, but the force in the case of prostheses on implants was significantly higher than the force measured in the case of prostheses without implants.

Conclusion Fixed hybrid prostheses are giving patient sense of security and stability, resulting in a better natural-looking smile. There is a significant increase in masticatory force in area of the distal implant indicating increased resistance to load and higher efficiency of the chewing process after the treatment.

Keywords: overdentures, all-on-four, implants

OP – 49**“IS THERE A CORRELATION BETWEEN TOOTH AND FACE SHAPE?”
DENTAL TECHNICIANS’ PERSPECTIVE: A PILOT STUDY**

Gulsum Ceylan

Istanbul Medipol University

Background: The shape, size, color and arrangement of the teeth are the most important factors for an attractive smile. The relationship between tooth and face shape has been the subject of many studies. This study aimed to evaluate the perspective of dental technicians on tooth shape and face shape correlation.

Methods and materials: In our study, digital smile designs with different tooth shapes were made on 6 cases (3 female, 3 male) with square, round and triangular face shapes. The designed cases were uploaded to the online survey system and shared online on social platforms. The participants were asked to answer age, gender, professional experience questions. After collecting the information from the participants, the data were entered into an excel spreadsheet (Excel 2021; Microsoft Corp).

Results: A total of 64 dental technicians (45 female and 19 male) participated the survey. Triangular tooth shape in a male case with a square face (71.88%), a triangular tooth shape in a female case with a square face (51.56%), a square tooth shape in a male case with a triangular face (39.06%), a triangular tooth shape in a female case with a triangular face (50.00%), a round face Triangular tooth shape (39.06%) in the male case, and square tooth shape (42.19%) in the round-faced female case were more preferred.

Conclusion: According to the results of our study, which was conducted with a limited number of people, there may not always be a correlation between tooth shape and face shape.

OP – 50**THE IMPACT OF THE COVID-19 PANDEMIC ON TRAUMATIC DENTAL INJURIES****Arif Bolaca***Pamukkale University, Faculty of Dentistry, Department of Paediatric Dentistry, Denizli; Turkey*

BACKGROUND: To evaluate characteristics of Traumatic Dental Injuries (TDIs) presenting to paediatric dentistry clinic at Pamukkale University, Turkey during the COVID-19 pandemic in 2020 and to compare this to patients presenting with TDIs over the same period in 2019.

MATERIALS AND METHODS: Retrospective data from March 2020-August 2020 and March 2019-August 2019 were collected from clinical records of patients who suffered TDIs during both periods. Informations regarding demographic variables, aetiology, time between TDIs occurrence to the clinic visit and type of TDIs were collected. Descriptive comparisons were performed.

RESULTS: A total of 58 patients were referred to clinic for TDIs (43 in 2019 and 15 in 2020). The age range of the patients suffering TDIs during the COVID-19 pandemic was 1-13 years old with a mean of 7.46 ± 3.8 years. In 2019, the age range was 0-15 years old with a mean of 6.47 ± 4.1 years. Patients who referred during COVID-19 pandemic consisting of 10 females (%66.7) and 5 males (%33.3), while in 2019 TDIs were diagnosed in 18 females (%41.9) and 25 males (%58.1). In both periods falls were the most common aetiological factor of (%55.8 in 2019, %60 in 2020) TDIs. There was a difference in the mean time between TDIs to the clinic visit, which was 76.3 hours in 2020 and 36.1 hours in 2019. Uncomplicated crown fractures (%29.62) were the most common TDIs in 2019, whereas in 2020 the most common TDIs were intrusive luxation (%23.68).

CONCLUSION: Within the limitations of this search, the results suggest that COVID-19 pandemic period had impact on the number of TDIs case, type of TDIs and patients' clinic visit times for treatment-seeking.

OP – 51**EFFECT OF SILANE USED WITH UNIVERSAL ADHESIVES ON THE BOND STRENGTH OF AESTHETIC CAD/CAM MATERIALS****Ece Eroğlu¹, Cennet Elçin Sağırkaya², Ramazan Bulut²****¹PRIVATE, ²ORDU UNIVERSITY FACULTY OF DENTISTRY**

Purpose:To evaluate the effect of the universal adhesive, which is used alone and in combination with different silane agents, on the shear bond strength (SBS) of aesthetic CAD/CAM materials.

Method and Materials:Lithium disilicate ceramic(IPS e.max CAD)[E], Zirconia reinforced lithium silicate ceramic(Vita Suprinity)[VS], Feldspatik ceramic(Vita Mark II)[VM], Hybrid ceramic(Vita Enamic), [AND] Flexible nanoseramik(GC Cerasmart)[C] CAD/CAM materials were used. A total of 250 samples of 5x5x1.5 mm in size were prepared. After etching with 9.5% hydrofluoric acid, they were divided into 5 subgroups(n = 10): Monobond Plus(MBP), Single Bond Universal Adhesive(SBU), Monobond Plus+Single Bond Universal Adhesive(MBP+SBU), Monobond S+Single Bond Universal Adhesive(MBS+SBU) and Clearfil Ceramic Primer+Single Bond Universal Adhesive(CCP+SBU). Adhesive resin cement(Panavia V5) was bonded to the samples and SBS test was applied with a universal testing machine at a cross-head speed of 0.5 mm / min. Data were analyzed statistically using two-way analysis of variance(ANOVA) and Tukey HSD tests. Fracture types were examined by SEM.

Results:As a result of the two-way analysis of variance test, the effect of material type, surface treatments and interactions on SBS values was found to be statistically significant (p <0.05). For all materials, the highest bond strength values were showed in the CCP+SBU group(19.61 ± 2.82 MPa) and the lowest bond strength values were in the SBS(11.97 ± 2.41 MPa) group.

Conclusion:Universal adhesives provide sufficient bond strength for CAD/CAM materials. The pre-silanization process is useful in improving the bonding performance of universal adhesives.

Keywords: Universal adhesive, silane agents, CAD/CAM materials, shear bond strength test.

OP – 52

ORAL HYGIENE HABITS OF 3-TO-5 YEAR OLD CHILDREN AND THE RELATIONSHIP OF CARIES

Betül Karagür, Çiğdem Küçükeşmen

Pediatric Dentistry Faculty of Dentistry Suleyman Demirel University

Background: Regular toothbrushing from an early age and regular dental check-ups are important in maintaining oral health in children. In our study, it was aimed to evaluate the relationship between the oral hygiene habits and dental caries of children aged 3-5 years.

Method And Materials: This study included 298 children aged 3-5 years and their parents who applied to pedodontics clinic, volunteered for the study and whose consent was obtained. The questionnaire about oral hygiene habits was administered to mothers and oral examination was performed. Data were obtained and analyzed statistically.

Results: It was revealed that 31.5% of the children brushed twice, 40.6% once daily, 22.8% occasionally and 1.7% did not brush their teeth at all. It was determined that the dmfs values who brushed their teeth occasionally were higher than the children brushed once a day ($p<0.05$). Toothbrushing frequency was higher among girls than boys ($p<0.05$). There was no significant relationship between age groups and frequency of brushing ($p>0.05$). 93.3% of children used toothpaste while brushing. Practice of parental toothbrushing was 13.1%, child self toothbrushing was 49.3% and both of these practices were %37,6. Dmfs values were higher in the practice of child self toothbrushing ($p<0.05$). 78.9% of parents brought their child to a dental office only when they had any dental problems.

Conclusion: It has been concluded that toothbrushing regularly and under parental supervision is an effective factor on prevention of dental caries. Parents should be made aware and encouraged to contribute to their children's oral hygiene practices.

OP – 53**PRESENCE OF GENERALIZED PAIN AMONG TMD PATIENTS**

Irena Mladenović, Mihael Stanojevic, Olivera Govedarica, Ognjenka Janjic Pavlovic, Jelena Krunic

FACULTY OF MEDICINE, UNIVERSITY OF EAST SARAJEVO

BACKGROUND: THE PRESENCE OF VULNERABILITY TO PAIN IN GENERAL AMONG TMD PATIENTS HAS BEEN SUGGESTED. THE STUDY WAS AIMED TO EVALUATE THE PRESENCE OF GENERALIZED PAIN IN PATIENTS WITH TEMPOROMANDIBULAR DISORDERS (TMD).

METHODS AND MATERIALS: TOTAL OF 90 PATIENTS WITH PAIN-RELATED TMD DIAGNOSIS AND 92 MATCHED HEALTHY CONTROLS WERE INCLUDED. PRESENCE OF TMD WAS ASSESSED BY RESEARCH DIAGNOSTIC CRITERIA FOR TMD. INFORMATION ABOUT PRESENCE OF PAIN SYMPTOMS OTHER THAN TMD PAIN IN PRIOR 6 MONTHS WAS COLLECTED FROM SYMPTOM REPORT QUESTIONNAIRE. IN ADDITION, ASSESSMENT BY PATIENTS OF WHETHER THEY HAD 'PAIN ALL OVER' WAS INCLUDED. THE STATISTICAL ANALYSIS INCLUDED CHI SQUARE AND MANN-WHITNEY TESTS.

RESULTS: A LARGE MAJORITY OF TMD PATIENTS (80%) HAD REMOTE PAIN IN ONE, ABOUT ONE THIRD OF THEM REPORTED PAIN IN >3 OF REMOTE SITES, AND ABOUT 25% REPORTED WIDESPREAD PAIN, PREVALENCE THAT WAS HIGHER THAN IN CONTROLS ($P < 0.01$, $P < 0.1$, $P < 0.05$, RESPECTIVELY).

CONCLUSION: TMD PATIENTS PRESENT HIGHER PREVALENCE OF GENERALIZED PAIN IN COMPARISON TO THE HEALTHY COUNTERPARTS. BETTER UNDERSTANDING OF THE NATURAL HISTORY OF GENERALIZED PAIN, AND OF ASSOCIATED FACTORS MAY BE VALUABLE.

KEY WORDS: GENERALIZED PAIN; TEMPOROMANDIBULAR DISORDERS

OP – 54**SOCIAL AND BEHAVIORAL DETERMINANTS FOR THE EARLY CHILDHOOD CARIES IN PRESCHOOL CHILDREN**

Emina ČengiĆ, Lejla Selmanović, Senka Serhatlić, Amina Željko, Nina Marković

Department of preventive dentistry and pedodontics of Dental school Sarajevo, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Background: The aim of the study was to investigate social and behavioral determinants for the early childhood caries in preschool children in Sarajevo, Bosnia and Herzegovina.

Material and Methods: The study involved dental examination of 165 preschool children aged 3-5 recording caries by dmft index, caries severity by Wyne classification and oral hygiene status assessed by Shroeder and Granth index. A structured questionnaire was used to interview parents or caregivers.

Results: Caries prevalence recorded by dmft index was 6.79 ± 5.25 . Percentage of Caries free children was 17%. The highest prevalence for decay component of dmft was in 5-year-olds (98.3%) and dmft value of $8.35 (\pm 4.41)$. Sixty percent of respondents were classified by Wyne as type 1, and 15.8% as type 2 and 7.3% were in type 3. Significant correlation was found between the level of education, caries prevalence and severity. Caries prevalence was higher in parents with lower level of the education. Children who started using toothbrushes and toothpaste earlier, and whose parents had a higher level of educations and incomes, had a lower dmft, plaque index and less severe for of disease assessed by Wyne classification. **Conclusion:** Socio-behavioral factors have significant role in development and progression of early childhood caries. It is important that healthcare professionals and parents are familiar and aware of risk factors which elimination represents the first line of defense.

Key words: Early childhood caries, behavioral factors, preschool children

OP – 55**STUDY OF THE FLOW RATE OF VARIOUS ENDODONTIC SEALERS**

Veljko Ilić, Dragan Ilić, Sanja Milutinović-Smiljanić, Đorđe Antonijević, Vesna Danilović

University of Belgrade, School of Dental Medicine

Introduction: Property that characterises velocity along the certain surface depending on the friction force that exhibits of that time is called the flow. The aim of this research was to evaluate the flow rate of three zinc oxide eugenol based endodontic sealers in various consistencies exposed to the load of 2 kg. Material and methods: Samples were prepared according to ADA specification

No. 57. Experimental group consisted of A) Endomethasone N in liquid:powder ratio of 1:5, 1:6, 1:7 (standard), 1:8 and 1:9 according to the manufacturer brochure depending on the clinical situation; B) Roth 801 as 1:7 (standard) and 1:8 mixtures C) Tubliseal EWT as standard preparation (base-catalyst 1:1). On a glass plate, the volume of 0.05ml sealer was spread and a load of 2 kg was applied after which sealer's diameter was measured. Same sealers were loaded only by the weight of glass plate (0.1kg) in a control group. Results: All of samples satisfied ADA requirements for the flow ($d > 20\text{mm}$) (Endomethasone – 20.7–27.8 mm; Roth 801- 29.6–30.0 mm; Tubliseal -39.9 mm). The thin consistency of sealers (1:5, 1:6) showed significantly higher flow than standard mixture (1:7) ($p < 0.05$). Conclusion: Highest flow rate was noted in Tubliseal EWT, significantly different than standard mixtures (1:7) of Endomethasone N and Roth 801.

OP – 56**GUIDED IMPLANT THERAPY- TIPS AND TRICKS**

Vancho Spirov¹, Aneta Mijoska², Oliver Dimitrovski¹, Bruno Nikolovski¹, Darko Veljanovski³

¹University Dental Clinical Centre”St.Pantelejmon- Skopje”, Department of Oral Surgery; ²University Dental Clinical Centre”St.Pantelejmon- Skopje”, Department of Prosthodontics; ³EDG Endomak Gevgelija

With the introduction of computed tomography (CBCT) into daily dental practice, along with the development of software solutions in dentistry, it revolutionized the planning and protocol of dental implant placement. The development of the surgical guides and their use in the implantation procedure eliminated the possible complications that each implantologist may encounter during his work, such as injury to adjacent teeth, injury to vital anatomical structures, incorrect angulation and incorrect implant position of placed implants. This “guided implant therapy” ensures correct and proper positioning of the implants, shortens the time required for operative intervention, reduces post-operative morbidity, and eliminates the need for flap and bone grafting procedures. This paper will explain the complete procedure of planning and creating of surgical guide, present all the pros and cons of working with the guide and present a few clinical cases from daily practice.

OP – 57**BUCCAL FAT PAD FLAP FOR CLOSURE OF OROANTRAL COMMUNICATION**

Sonja Rogoleva Gjurovski, Bruno Nikolovski, Cena Dimova

Faculty of medical sciences, University Goce Delcev, Stip

Oroantral communication is created as a consequence of some dental procedures, extractions, expanded cyst, iatrogenic trauma or progressive infection. There are many traditional techniques that are used for this intervention, such as nasolabial flap, palatal transposition flaps, standard buccal flap, and latest technique pedicled buccal fat pad flap (BFP). For this technique is characteristic that the size of the buccal fat pad remains the same, no matter the body weight of the person and its fat distribution in the body. It is also easy to prepare and this tissue has a good blood supply.

For this study were analyzed totally 43 articles, while 31 of them were with the inclusion criteria. It was based on narrative review on published articles in English language that reported results about the studied topic. The research was done with the use of data bases PubMed, Medscape, NCBI, and Cochrane Library.

From the gathered results, it has been shown that patients treated with the BFP technique have had 81,75% successful outcome, and 18,25% resulted with failure. Pain was registered more intense, than the pain in the control group, same with postoperative edema, however there was not statistical significant difference in the maximum mouth opening in both techniques. From this study was concluded that the usage of BFP technique results with more intense post-operative consequences, however the high blood supply makes it good choice for closing OAC.

OP – 58**THE KEY ROLE OF DENTISTS IN THE EARLY DETECTION AND PREVENTION OF DOMESTIC VIOLENCE**

Bojan Jelić

Specijalistički centar “DR JELIĆ”

Aim.

The main aim of this paper is to increase the awareness of dentists and point out their importance in the early detection and prevention of domestic violence.

Introduction.

Domestic violence is: abuse of children, partners, the elderly and abuse of people with disabilities.

There has been a large increase in domestic violence worldwide, and this issue has been further exacerbated by the Covid-19 pandemic.

There are acute and chronic signs of domestic violence.

75% of these injuries are to the head, face or neck.

Dentists already have a confidential relationship with their patients, which is why abusers avoid having the same general practitioners and even senior doctors as their victims, but they do not avoid having the same dentist.

Dentists can therefore be the first, sometimes the only ones who can notice and recognize any signs of violence.

Material and methods.

The official data obtained from dental chambers on the number of licensed dentists in our country and in other countries in the Balkan region had been analyzed, as well as data on undergraduate students' familiarity with this issue, based on first cycle programs of studies at several faculties of dentistry in the region.

Conclusion.

The results show that all graduate dentists and dentists in general should be more aware and better informed about this issue so as to recognize and prevent domestic violence in a timely manner.

OP – 59**PREVALENCE OF TAURODONTISM IN PRIMARY MOLARS OF CHILDREN AGED 5-7 YEARS**

Yagmur Ates, Zuhale Kirzioglu

Department of Pediatric Dentistry, Faculty of Dentistry, Suleyman Demirel University, Isparta, Turkey

Background: Taurodontism is a dental anomaly characterized by an apically elongated pulp and short roots. In this study, it was aimed to evaluate the prevalence of taurodontism in primary molars among Turkish children and distribution in jaws and pulp chamber dimensions of taurodont molars.

Methods and Materials: This retrospective study was conducted for 2500 patients aged between 5-7 years, who visited our pedodontics clinic between 2016 and 2021. Taurodont primary molars were evaluated by Shifman method, the obtained data were analyzed with the chi-square test.

Results: Among the 1549 radiographs of 2500 patients examined, which met the inclusion and exclusion criteria, 49 of them had taurodont primary molars, the rate was 3.16%. There was no gender difference between patients with taurodontism ($p>0.05$). The prevalence of taurodont primary molars from all primary molars examined was 1.2%. A significantly greater number of taurodont primary molars was observed in the mandible than in the maxilla ($p<0.05$). There was no difference between the right or left jaws ($p>0.05$). The prevalence of taurodontism among the first primary molars was higher than second primary molars ($p<0.05$). Hypotaurodontism was the most prevalent type ($p<0.05$).

Conclusion: Results show that the occurrence of taurodont primary molars was rare. Taurodont teeth are related to several genes and other dental abnormalities. The exact etiologies are unclear, and further studies are needed. Due to require different methods of treatment depending on their altered morphology, it is necessary to protect taurodont teeth.

OP – 60**SUCCESS RATE OF MTA PULPOTOMIES IN IMMATURE PERMANENT TEETH: A RETROSPECTIVE STUDY**

Merve Bayram

Istanbul Medipol University, School of Dentistry, Department of Pedodontics, Istanbul, Turkey

Background: This retrospective study aimed to investigate the success rate of pulpotomy using MTA as a pulpotomy material for immature permanent teeth in children showing clinical signs and symptoms consistent with traditional diagnosis of pulpitis.

Methods and materials: Child patients, who received dental care with MTA pulpotomy in young permanent teeth that were diagnosed with reversible or irreversible pulpitis and had complete clinic records with panoramic radiographs were included in this study. Clinic and radiographic examinations were carried out by two pediatric dentists who were properly trained and calibrated. Case number, gender, age, tooth number, type of pulpal diagnosis, follow-up time, and treatment outcome were recorded for all subjects.

Results: 51 subjects (26 male, 25 female) with 72 immature permanent teeth (nreversible:45, nirreversible:27) were evaluated. The age range of patients was from 6.7 to 12.7 years, with a mean age of 8.9 ± 1.4 years. The follow-up examination period ranged from 4.9 to 55.4 months with a mean of 22.6 ± 12.5 months. Considering both clinical and radiographic evaluation at the end of the follow-up period, the treatment was considered successful for 70 of the teeth (97%).

Conclusion: The incidence of unfavorable outcomes was low and the success rate was high in this study. MTA pulpotomy was highly successful in children both clinically and radiographically in symptomatic immature permanent teeth with carious exposures. In the light of findings of this study, MTA pulpotomy may be considered as an alternative for cariously exposed young permanent teeth in children, even when diagnosed as irreversible pulpitis.

OP – 61**CELLULOSE FIBER ADDITION TO EXPERIMENTAL GLASS IONOMER CEMENTS: A PILOT STUDY**

Ece Ucar¹, Işıl Çekiç Nagaş¹, Ferhan Eğilmez¹, Pekka Kalevi Vallittu², Lippo Veli Juhana Lassila²

¹*Gazi University, Faculty of Dentistry, Department of Prosthodontics;*

²*Institute of Dentistry, Department of Biomaterials Science and Turku Clinical Biomaterials Centre – TCBC, University of Turku*

Objective

The aim of this study is to evaluate compressive and diametral tensile strength properties of experimental glass ionomer cements with cellulose fiber added in different ratios.

Methods and Materials

Poly acrylic acid-co maleic acid solution was used for the liquid of the experimental glass ionomer cement and SCHOTT glass was used for the powder. Cellulose fiber was added to the liquid of the glass ionomer cement at 4 different ratios. Compressive and diametral tensile strength was determined on cylindrical specimens (4 mm in diameter and 6 mm in height) that were prepared according to ISO 4104. The specimens (n = 6) were loaded in compression until failure at a crosshead speed of 1 mm min⁻¹. Statistical analysis was performed using one-way ANOVA and Tukey tests ($\alpha < 0.05$).

Results

Addition of cellulose fiber did not affect the compressive tensile strength of experimentally developed glass ionomer cements ($\alpha = 0.06$). However, it was observed that the addition of cellulose fiber statistically affected the diametral tensile strength of experimentally developed glass ionomer cements ($\alpha < 0.05$). Then, 2 samples were randomly selected from the broken samples and the distribution of the cellulose fiber was examined under the scanning electron microscope.

Conclusion

The addition of cellulose fiber to the glass ionomer cement liquid did not significantly affect the Compressive tensile strength but did affect the diametral tensile strength. Cellulose fiber might be a good alternative for improving to the mechanical properties of glass ionomer cements.

OP – 62**MARSUPIALIZATION: 6 CASE SERIES**

Gökhan Gurses, Aslı Ataseven, Ahmet Aktı, Abdullah Kalaycı, Ercan Durmus

Selcuk University, Dentistry Faculty, Department of Oral and Maxillofacial Surgery,

Objective: The most common odontogenic cysts of the jaws are the radicular cyst and dentigerous cyst. The treatment of cystic lesions depends on the cyst's location, size, and proximity to the important anatomical structure such as maxillary sinus, mandibular canal, nasal cavity. Without treatment, these cysts may cause a pathological bone fracture, impaction of the permanent tooth, bone deformation, ameloblastoma, and development of squamous cell carcinoma or mucoepidermoid carcinoma. This case series aimed to analyze clinic and radiologic features of cysts that were treated with marsupialization. The treatment modality indicated for such a lesion is either surgical removal or the use of a marsupialization technique.

Case reports: A total number of 6 cases, which consists of 2 females and 4 males. The age of the children ranged between 8 and 15 years old. Each patient had a cyst associated with the impacted tooth. Samples were taken from the cysts for biopsy. All cysts were treated with marsupialization. Irrigation and control appointments lasted until the impacted tooth erupted into the oral cavity.

Result : Marsupialization is an effective treatment method in the treatment of large cysts with a low complication rate. Accurate treatment planning, regular clinical follow-up, and patient cooperation are required for clinical success.

OP – 63**THE RELATIONSHIP BETWEEN MAXILLARY LABIAL FRENULUM ATTACHMENT TYPES, PERIODONTAL HEALTH AND DENTAL CARIES IN CHILDREN**

Pinar Kinay Taran, Şerife Özdemir, Bilge Akarca, Hilal Yüksel Ak

Bezmialem Vakif University, School of Dentistry, Department of Pediatric Dentistry

Background: The notable maxillary labial frenulum has been associated with several clinical problems. The aim of this study was to investigate any possible relation of maxillary labial frenulum attachment type on periodontal status and dental caries in preschool children.

Methods and Materials: This cross-sectional study was conducted for a six-month period among the children who applied for treatment at a university clinic. The type of maxillary labial frenulum attachment was recorded as mucosal, gingival, papillary, and papillary penetrating. Plaque index (PI), gingival index (GI), and dental status (dmft) of maxillary primary incisors were evaluated. Kruskal Wallis and Pearson's Chi-Squared tests were used for statistical analysis.

Results: A total of 214 three to six-year-olds (mean age equals 4.4 ± 0.9 years old) children participated in the study. The most common maxillary frenulum attachment type was the gingival type (45.8%), while the papillary penetrating type (13.1%) was the least common. The PI, and GI scores in children with mucosal type frenulum were lower than children with the gingival, papillary, and papillary penetrating type ($P < 0.01$). The dmft scores were lower in children with mucosal type frenulum and higher in children with papillary type frenulum ($P < 0.01$).

Conclusion: Papillary and papillary penetrating type frenulum attachments were associated with a decline in periodontal health and higher caries incidence in maxillary primary incisors. In clinical examination, the type of maxillary labial frenulum attachment should be evaluated in terms of possible oral health problems.

OP – 64**THE EFFECT OF ER:YAG LASER ON SHEAR BOND STRENGTH DIFFERENT RESIN CEMENTS****Babek Jafarli¹, Işıl Turp²***¹Private practice, ²Bezmialem Vakıf University*

The aim of the current study is to evaluate the effect of Er:YAG laser on the bond strength of lithium disilicate ceramic to enamel cemented with light-cure and dual-cure resin cements.

88 lithium disilicate ceramic discs with a diameter of 5 mm and a thickness of 1.5 mm were fabricated from lithium disilicate ceramic. These discs were cemented to bovine enamel with 2 different light cure and 2 different dual cure resin cements. Er:YAG laser was applied to half of the specimens cemented with the same cement with a power of 4.2 W (140 mJ x 30 Hz) for 6 s using the scanning method. Shear bond strength of all specimens were evaluated in the universal testing machine with a crosshead speed of 1 mm/min. The failure modes were classified as adhesive, cohesive and adhesive+cohesive by the aid of a stereomicroscope. The statistical analysis was carried out with Kruskal-Wallis and post-hoc Tukey HSD tests.

Statistically significant difference was not found between neither laser applied and non-laser applied groups nor different brands of resin cement. But failure modes of laser applied groups were generally cohesive where failure modes were generally adhesive in the non-laser applied groups.

OP – 65**EVALUATION OF ENAMEL SURFACE AFTER ORTHODONTIC DEBONDING AND CLEANUP USING DIFFERENT PROCEDURES: AN IN VITRO STUDY**

Olivera Srbinovska¹, Natasa Tosevska¹, Biljana Dzipunova¹, Ana Pocevska-Panova², Simona Muratovska, Ilijana Muratovska

¹Faculty of Dentistry, UKIM; ²Faculty of Pharmacy, UKIM

Aim:The purpose of this in vitro study was to evaluate the enamel surface after cleaning the adhesive remnants from orthodontic bracket. **Materials and Methods:** Metal and ceramic brackets were bonded on forty freshly extracted human premolar teeth and debonded after 24 h. Removal of remnant adhesive was performed using tungsten carbide burs (TCBs) (30 fluted) with low-speed contra-angle handpiece and ultrasound piece. The surfaces were evaluated under Apochromatic Stereo Microscope ZEISS Stemi 508, camera AxioCam ERc 5s, 50×(magnification). Adhesive remnant index was by scale of Årtun and Bergland from 0-4. **Results:** Images were printed for evaluation of enamel surface by a single, previously calibrated investigator. The lowest roughness scores was obtained by ultrasound and tungsten carbide burs produces deeper wear, beyond maximum average depth, causing more damage to enamel. **Conclusion:**Better enamel surface smoothness was achieved by ultrasound, found to be effective even in more adhered ceramic brackets and less timeconsuming method.

OP – 66**CATEGORIZATION OF IMPACTED CANINES AND PREMOLAR TEETH IN PATIENTS UNDERGOING SURGICAL PROCEDURES**

Eriselda Simoni¹, Merita Bardhoshi², Anis Thodhorjani¹, Renato Isufi¹, Denis Kadaifciu¹

¹Stomatologic University Clinic, Tirana; ²Faculty of Dental Medicine, University of Medicine, Tirana;

Background and Purpose: The prevalence of different locations of canine impaction has been studied in different studies and it has been found that palatal impaction is more common. The aim of the study is to evaluate the surgery indication and categorize the impacted canines and premolars according different locations in patients undergoing surgical procedures.

Methods: 57 consecutive patients diagnosed impacted canines and premolars that underwent surgical procedures from January to December 2019 were enrolled in the study. The impacted teeth were categorized in maxillary (classified in labial and palatal in 5 subtypes) and mandibular (buccal/ lingual, vertical, horizontal, and oblique) position. Were evaluated the indications for surgical treatment and the occurrence of each subtype of impacted teeth.

Results: Patients presented with impacted teeth varied for 10 to 71 years old with a higher prevalence of males (58%). The main indication for surgical treatment was the orthopedic (50%) followed by orthodontic ones (40%).

Impacted teeth are more common in the maxilla compared to mandible (75% vs 25%). The impacted canines represented the highest proportion (67%). The palatal position was the most frequent in maxillary teeth (88%) and the subtype 3 (labial crown / palatal root) was the most frequent (62.5%). The buccal/ lingual position was the most frequent in mandibular teeth (40%).

Dental extraction was used in 75%, and the exposition in other 25% of cases. Patients undergoing exposition were younger compared with those undergoing extraction (around 12 vs 36 years old)

Conclusions: Our patients with impacted teeth mostly underwent dental extraction procedures for orthopedic indications, and the impacted maxillary canines in palatal position was the most common.

OP – 67**COMPARISON OF THE EFFECTS OF TOOTH-BORNE AND BONE-BORNE RAPID PALATAL EXPANSION ON THE NASAL TISSUE**

Mehmet Akin, Tugce Esra Gunes

Alanya Alaaddin Keykubat University, Faculty of Dentistry

Aim: The aim of this study was to evaluate of the effects of Bone-Borne Rapid Palatal Expansion (BBRPE) and Tooth-Borne Rapid Palatal Expansion (TBRPE) treatments on the nasal soft and hard tissue using Cone-Beam Computed Tomography (CBCT).

Materials and Methods: In this retrospective study, CBCT records of 22 patients (mean age 14.02 ± 0.98) who treated with BBRPE and 23 patients (mean age 14.51 ± 1.47) who treated with TBRPE were selected from our clinical archive. Patients were evaluated pretreatment (T1) and posttreatment (T2). Size changes in the soft and hard tissues (8 linear, 1 angular) of the nasal were measured in CBCT scans. The results were analyzed in intragroup comparisons with Paired Sample T Test, intergroup comparisons with Independent Sample T Test.

Results: All measurements except alar width, piriform height, and nasal septum deviation angle increased significantly in T2 compared to T1 in both groups ($P < 0.05$). Increases in alar base width, posterior and anterior nasal cavity measurements at T2 compared to T1 were significantly greater in both groups. However, no significant difference was found in comparisons between groups ($P > 0.05$).

Conclusions: The volume increase in the nasal cavity and surrounding tissues was observed in the TBRPE and BBRPE groups and this increase was found to be similar in both groups.

OP – 68**EFFECT OF SURFACE PRE-TREATMENTS ON MICROSHEAR BOND STRENGTH TO PEEK**

Soner Şişmanoğlu¹, Aliye Tuğçe Gürcan²

¹*Altinbas University, Faculty of Dentistry, Department of Restorative Dentistry;*

²*Altinbas University, Faculty of Dentistry, Department of Pediatric Dentistry;*

Background: The aim is to assess the bond strength of a resin luting cement to differently pre-treated polyetheretherketone (PEEK) surfaces.

Methods and Materials: Prefabricated CAD-CAM blank was cut into 3 mm thick specimens with a high precision cutting machine (IsoMet High Speed Pro; Buechler Ltd.). PEEK disks were embedded in self-cured acrylic resin blocks, serially polished (600-, 1200-, and 4000-grit) and pre-treated as follows: (1) no treatment (control), (2) sulfuric acid (98%) acid etching for 1 min, (3) sandblasting for 10 s with 50 µm aluminum oxide. After surface treatments, the pre-treated surfaces were further examined with scanning electron microscopy. Each specimen received 4 resin cement microtubules. After 24 hours, a shear force was applied to the adhesive interface through a µSBS testing device until failure at a crosshead speed of 0.5 mm/min. The bond strength data were analyzed with one-way ANOVA test. Pairwise analyses were performed with the Tukey test ($\alpha=0.05$).

Results: Whereas the polishing resulted in a smooth PEEK surface with little surface alterations, distinct surface modifications were visible with all pre-treatments. The sulfuric acid etching resulted in a complex fiber network, while sandblasting led to an irregular surface characteristic. All surface treatments increased the bond strength compared to the control group. However, the highest bond strengths as compared to all other treatments could be measured for resin cement, when the PEEK was chemically pre-treated with 98% sulfuric acid ($p < 0.05$).

Conclusion: Bonding to PEEK is not possible without a surface pre-treatment. Sulfuric acid etching yielded better bond strength values among pre-treatments.

OP – 69**EFFECTIVENESS OF SELF-ASSEMBLING PEPTIDE (P11-4) IN ENAMEL DEMINERALIZATION: A COMPREHENSIVE REVIEW****Nilüfer Üstün***Istanbul Medipol University*

Background: The limitations on the use of fluoride therapy in dental caries prevention have necessitated the development of newer preventive agents. This review focuses on recent and significant studies comparing different remineralizing agents and Self-assembling peptide (P11-4) in enamel demineralization.

Methods and Materials: Three electronic databases (PubMed, Google Scholar, Ovid EMBASE) were screened on March 12, 2022 using the proper keywords to identify eligible studies. No language or time restrictions were applied. Only studies in which the remineralization efficiency of P11-4 was compared with other materials were included in this review.

Results: In total, 297 studies were identified for screening and 24 studies (15 in-vitro, 8 in-vivo, one both) were eligible. Ten studies conducted on human teeth showed superior efficacy on enamel remineralization with P11-4 compared to other remineralizing agents. Nevertheless, some studies have reported that the P11-4 group had the least amount of remineralized enamel micro-hardness and a significantly lower calcium/phosphate percentage ratio than the fluoride and CPP-ACP containing agents. In addition, when compared to a low-viscosity resin, self-assembling peptides could neither inhibit nor mask the lesions significantly. Moreover, when it is combined with other agents, better results can be achieved, allowing more effective remineralization.

Conclusion: Based on a low number of clinical trials with relatively short follow up-periods, P11-4 may be a viable option to remineralize enamel caries. However, the evidence on its clinical potential and efficacy on dental erosion remains under-explored and this leads to the inference that the evidence to draw a concrete conclusion.

OP – 70**A DIFFERENT METHOD TO ACCELERATE ORTHODONTIC TOOTH MOVEMENT. A RANDOMIZED CONTROLLED TRIAL.****Osman Yildiz, Ahmet Yagci, Nizami Hashimli***Erciyes University, Faculty Of Dentistry*

INTRODUCTION:According to the researchers, the average duration of orthodontic treatment is 2 years and this is affected by the severity of malocclusion, patient cooperation, biological variables, tooth extraction treatments and the need for orthognathic surgery. Both patients and orthodontists want to accelerate orthodontic tooth movement and shortening the total treatment time. The aim of this study is to accelerate the orthodontic tooth movement by using the acceledent and hycon device together. In addition, it is aimed to minimize the pain that occurs during the canine distalization phase of orthodontic treatment.

METHODS:Twenty patients (10 males and 10 females) with an age group ranging from 14 to 18 years with Class II div 1 malocclusion were selected for this study by a power analysis. The patients were randomly divided into 2 groups and one group was applied vibration with Acceledent device. This study was planned in split mouth design by activating the hycon devices on the right and left sides differently. All models were scanned with a 3D laser model scanning device and digitalized. The duration of canine retraction, angulation of canine and canine rotation was also compared with this software.

RESULTS: The results showed that the orthodontic tooth movement in the acceledent+hycon group was faster than the hycon group. Clinically and radiologically, although some canines tipped slightly after retraction most of the canines moved bodily. There were no significant differences among groups.

CONCLUSION: The use of Hycon device and acceledent device together created synergistic effect and faster orthodontic tooth movement occurred.

OP – 71**PIEZOSURGERY IN ORTHOGNATIC SURGERY**

Renato Isufi¹, Aurora Isufi², Ramazan Isufi³

¹University Dental Clinic; ²Isufi Royal Dental; ³UHC Mother Theresa

Piezosurgery device was developed for atraumatic cutting of bone by ultrasonic vibrations in oral surgery, but in the last two decades from the literature was shown that piezoelectric devices are very good indicated in Maxillo-facial Surgery and Orthognatic Surgery.

The big advantages of piezosurgery in orthognatic surgery include selective cutting of the bone without damaging vessels, nerves or mucosa, provide a clear visibility in the operating field and cutting with micron sensitivity without the generation of heat.

In this presentation we will discuss 15 cases of bimaxillary surgery operated with piezosurgery.

Compared to burs and saws, piezoosteotomy showed a significant intra-operative blood loss reduction but the surgical procedure duration was longer and with higher cost and special training. In bimaxillary surgery with piezosurgery was shown a lower incidence of postoperative hematoma, swelling and nerve impairment.

In bimaxillary surgery piezodevices achieve better results compared to traditional osteotomy instruments. Piezosurgery is less aggressive and safer.

Keywords : Piezoosteotomy ; Bimaxillary Surgery ; Orthognatic Surgery

OP – 72**CARIES STATUS AND TREATMENT NEEDS OF INDIVIDUALS WITH SPECIAL HEALTH CARE NEEDS**

Senka Serhatlić, Lejla Selmanović, Damir Duratbegović, Emina Čengić, Nina Marković

Department of preventive and pediatric dentistry of Dental school Sarajevo, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Background: The objective was to assess caries status and treatment needs of children with special healthcare needs for residents of the school for children and adults with special needs "Mjedenica" and to evaluate planned treatment efficiency after eight months period.

Material and Methods: The research was conducted at the dental office placed in school specialized for children with special health care needs "Mjedenica", Sarajevo. The sample consisted of 124 respondents. Clinical examination was performed to assess caries status and treatment needs and to evaluate planned treatment after eight-months period.

Results: The total number of residents in "Mjedenica" was 185, number of examined respondents was 124 and percentage of untreated caries was 85.48%, the percentage of extraction need was 39.51%, the percentage of filling need was 83.06%. The number of absolute noncooperative respondents was 49. After 8 months of intensive and dedicated dental treatment in dental office "Mjedenica" the caries prevalence is reduced up to 22.95%. **Conclusion.** Adequate treatment supported with efforts in preventive oral health care, continuous monitoring of oral health habits is fundamental for oral health improvement in individuals with disabilities and special health care needs.

Key words: oral health, special healthcare needs, treatment needs, caries prevalence.

OP -73**COMPARISON OF MARGINAL FIT BETWEEN CAD-CAM AND HOT-PRESS CELTRA DUO CROWNS**

Ferruh Semir Smail¹, Huseyin Emir Yuzbasioglu¹, Ayse Ceylan Ilhan², Izim Turker²

¹Bahcesehir University Vocational School of Health Sciences; ²Vocational School of Health Sciences

Background : The materials used in CAD-CAM systems have also increased and diversified in parallel with the technology. One of the current materials developed as a result of the studies is the lithium silicate material reinforced with zirconium.

Our study aims to statistically evaluate the marginal fit and internal fit of crowns produced by heat pressing, together with newly produced zirconium reinforced lithium silicate blocks, by looking at two different methods.

Methods : Scanning and design processes on the master die models produced by duplicating the prepared models, the production was completed from zirconium-reinforced lithium silicate blocks for heat pressing groups, and from zirconium-reinforced lithium silicate blocks for CAD-CAM systems. Silicone replica technique was used to examine the marginal on the prepared crowns. Measurements were made with lengths taken from photographs taken with an electronic microscope.

Results: The results of the study revealed that the production techniques effects the marginal fits of Celtra Duo crowns. There were statistically significant differences in values of marginal fitting of Celtra Duo crowns ($P<.001$).

Conclusion: The data to be obtained from the study gives clinically valuable information about the use of different materials together in CAD/CAM systems, which are increasingly used today. It is expected that the data to be obtained from our study will shed light on the selection of CAD/CAM system elements suitable for dental prosthesis technicians and dentists.

OP -74**EFFECT OF SERRATIOPEPTIDASE IN CONTROLLING PAIN AND TRISMUS AFTER THIRD MOLARS REMOVAL**

Salim Zukić¹, Faris Fočo², Jasna Karakaš Zukić³

¹JUDZKS; ²SSST; ³Opća bolnioca "Abdulah Nakaš"

Summary: Operative removal of submerged teeth represents most often, thus most important, surgical procedure in field of oral surgery. Etiology of narrow jaw is correlated with continuous reduction of jaw an teeth, noting that teeth reduce slower as high differentiated tissue resulting with dentoalveolar disproportion. Studies have shown that the most common impacted teeth are third molars (98%) followed by maxillary canines (1.3%).(1) Removal of impacted teeth needs a surgical procedure where soft tissue flap is raised and associated tooth or bone or both are cut and the tooth is removed. Such surgical procedures usually result in injury of tissues, involving inflammation and repair processes.(2) This procedure is often associated with significant post operative swelling and pain that may have both biological and social implications. Facial swelling which is due to inflammation, could be an associated distressing factor for the patient. Serratiopeptidase is a proteolytic enzyme which is being used alone or in combination with steroids and NSAID's for effective relief from pain and swelling.(3) It has been successfully used since many years in Japan and Europe for pain and inflammation due to arthritis, trauma, surgery, sinusitis, bronchitis, carpel tunnel syndrome and painful swelling of the breast. (4)

This systematic review represent an attempt to compile the available evidences on the use of serrapeptase in reducing facial swelling after surgical removal of impacted molar tooth.

Materials and Methods: A prospective randomized clinical study was conducted among 100 patients requiring surgical removal of impacted mandibular third molars. . Selected patients were randomly allocated to either the control group or the serratiopeptidase group.

OP -75**AN ASSESSMENT OF ORAL HYGIENE PRACTICES OF ADOLESCENTS AND THEIR PARENTS**

Gokce Ozcan, Derya Ceyhan

Department of Pediatric Dentisry, Faculty of Dentistry, Suleyman Demirel University, Isparta, Turkey.

Background: Adolescents who need more motivation and guidance neglect oral hygiene practices because of less involvement of parents in their care. The aim of this study is to investigate oral hygiene practices of adolescents and their parents and possible relationships with certain sociodemographic factors.

Materials and Methods: This study included 437 healthy individuals aged 10-17 years and their parents, who applied to the pedodontics clinic and approved for the study. Information about age, gender, province of residence, education level, frequency of tooth brushing and tongue cleaning status were obtained by a questionnaire. Data were analyzed statistically and $p < 0.05$ was considered significant.

Results: The mean age of adolescents was 11.75, one-third of them were from outside the province, and their parents' education level was mostly primary education. In general, parents and adolescents brushed their teeth once or twice a day, whereas 7.8% of parents and 4.6% of adolescents did not have tooth brushing habit. Tongue cleaning was in 24.9% of the parents and 15.8% of the adolescents, and performed in anterior and middle region of the tongue with a toothbrush during brushing. Adolescents' parents who did not brush their teeth or brushed occasionally were mostly at primary education level and tongue cleaning status and frequency of tooth brushing of the adolescents and the parents were related to each other ($p < 0.05$).

Conclusion: Educational programs on oral hygiene practices for the adolescents and their parents who are role models for them are essential. Parents with a low level of education need more education.

OP -76**EFFECT IN CURVED CANAL PREPARATION OF NITI INSTRUMENTS WITH CONTINUOUS VERSUS RECIPROCATION ROTATION**

Ema Krdžović, Jugoslav Ilić, Katarina Beljić Ivanović

School of Dental Medicine, University of Belgrade, Department of Restorative Odontology and Endodontics

Background: Machine driven systems and NiTi files shape canals more efficiently. Original geometry of curved canals can be significantly changed during preparation procedure. The aim of this study was to investigate the effect of two Ni-Ti instruments with continuous rotation vs. two with reciprocation motions on the canal anatomy with different degree of curvature.

Methods and materials: Transparent acrylic blocks with a single canal with different degree of curvature were used. Postgraduate students were trained by two certified trainers from the Department of Restorative Odontology and Endodontics. Before instrumentation blocks were photographed, degree of each canal curvature was determined using Schneider's method and then divided into two groups. Group 1- continuous rotation: ten blocks were instrumented using Mtwo (VDW, Munchen, Germany), and another ten using ProTaper Next (Dentsply/Sirona, Ballaigues, Switzerland). Group 2 – reciprocating motion: ten blocks were prepared using Reciproc (VDW, Munchen, Germany), and other ten by WaveOne Gold (Dentsply/Sirona, Ballaigues, Switzerland). All instrumentations were finalized with size 25. Degree of curvature was measured under the identical conditions by two operators and by one of the trainers. Values were statistically analyzed and compared.

Results: Changing of the original curvature was between 0-5 degree with no statistically significant difference between the two groups of instruments' motions. Of four transportations of the apical portion of the canal three were produced by instruments with reciprocation motion.

Conclusion: None of four tested rotary Ni-Ti systems changed significantly the original canal anatomy. Both systems can be successfully used for preparation of curved root canals.

OP -77**ASSESSMENT OF OCCLUSAL FORCE BY OCCLUSAL CONTACT SURFACE AREA FROM CAST IMAGES: A PRELIMINARY STUDY****Burcu Bal***Department of Prosthodontics, Yeditepe University, Faculty of Dentistry, Istanbul, Turkey*

Background: Occlusal contact area and intensity may change as applied occlusal force increases. This study aimed to model occlusal contact area and intensity for different occlusal forces.

Methods and materials: One mandibular and maxillary cast was obtained from a mandibular and maxillary complete denture fabricated in preclinical work. Casts were mounted on an articulator and 0.8-micron articulating paper was inserted between the casts. Two different forces were exerted using weights of 0.5kg, and 5kg on the articulator, and occlusal surface of lower first molar tooth was imaged using a microscope 10 times for each force. Red spots on the images were quantified to assess contact surface area and intensity using a software system. Correlation analysis was performed to figure out any correlation between contact surface area or intensity and force applied.

Results: On average, contact surface area was $1.5 \pm 1.2 \text{ mm}^2$ and contact intensity was $78.0 \pm 2.9 \%$ for the 0.5 kg force while the contact surface area was $13.4 \pm 7.0 \text{ mm}^2$ and the contact intensity was $81.5 \pm 1.9 \%$ for the 5 kg force. A very strong degree correlation is present between contact surface area and the force applied ($p \pm 0.05$). There was a moderate correlation with significance between the contact surface intensity and the force applied ($p \pm 0.05$).

Conclusion: Contact surface area and intensity measures offer potential estimates of the occlusal force. Fully automated methods for this purpose are needed to be developed.

OP -78

BRUSH BIOPSY CAN IMPROVE CLINICAL ORAL EXAMINATION IN DETECTION OF ORAL MUCOSAL LESIONS

Uros Tomić¹, Sanja Matić Petrović¹, Drago Jelovac², Nada Tomanović³, Ana Pucar¹

¹Department of Oral Medicine and Periodontology, School of Dental Medicine, University of Belgrade, Serbia; ²Clinic for Maxillofacial Surgery, School of Dental Medicine, University of Belgrade, Dr Subotica 4, Belgrade 11000, Serbia;

³Institute of Pathology, Faculty of Medicine, University of Belgrade, Dr Subotica 1, Belgrade 11000, Serbia

Background

The objective of this study was to compare cytological findings using transepithelial biopsy (oral brush biopsy) with histopathological diagnoses obtained by incisional biopsy in patients with clinically diagnosed benign lesions, oral potentially malignant disorders and malignancies of oral mucosa.

Methods and materials

68 patients were included totally – 28 with clinical diagnoses of malignant lesions, 25 with OPMDs and 15 with benign lesions. Brush biopsy was performed using cervical brush and was immediately followed by incisional biopsy. Modified Bethesda System was used for cytological analysis and correlated with histological diagnoses according to intraepithelial neoplasia.

Results

Moderate agreement was observed between clinical and cytological diagnosis ($\kappa=0,507$) and between clinical and histopathological diagnosis ($\kappa=0,509$). Good agreement was shown between cytological and histopathological diagnosis ($\kappa=0,764$). Comparing to histopathology as gold standard of diagnosis, sensitivity of cytological diagnosis was 100%, while its specificity was 94.8%. Positive predictive value was 93.5% and negative predictive value was 100%.

Conclusion

COE is insufficient for accurate oral mucosal lesions diagnosis. Cytological analysis using brush biopsy can be fast and efficient adjuvantive diagnostic method. Further investigation and method standardization are needed.

POSTER PRESENTATIONS (PP)

PP – 1**THE EFFICIENCY OF DIODE LASER IN NON-SURGICAL PERIODONTAL THERAPY**

Mirjana Gojkov Vukelic¹, Sanja Hadzic¹, Indira Mujic Jahic¹, Enes Pasic¹, Verica Pavlic²

¹Department of Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo, Sarajevo, Bosnia and Herzegovina; ²Department of Periodontology and Oral Medicine, Institute of Dentistry, Banja Luka, Bosnia and Herzegovina

Department of Periodontology and Oral Medicine, Faculty of Medicine University of Banja Luka, Bosnia and Herzegovina

Introduction:

The key to successful periodontal therapy is an improvement in clinical parameters of periodontal diseases. This study aimed to demonstrate the efficiency of low-level diode laser irradiation on periodontal pocket depth reduction in patients with chronic periodontitis.

Materials and methods:

24 patients, both female and male, with chronic periodontitis (n=1164 periodontal sites in total) were included in this study. For laser irradiation, low-level diode laser (Smile Pro 980, Biolitec) was used. On initial periodontal screening, the periodontal status of the patients was recorded, including plaque index (PI), papilla bleeding index (PBI), periodontal pocket depth (PPD) and clinical attachment level (CAL), before low-level laser irradiation (LLLI). The same parameters were recorded immediately after LLLI and 3 months of follow up.

Results: Results of this study demonstrated a statistically significant difference in mean values of PPD before therapy (M=3.63) and immediately after LLLI (M=2.63): t=18.75, p< .01. CAL values before therapy (M=3.91) were statistically significant when compared to CAL after LLLI (M=2.87): t=19.58, p< .01. Mean values of PI were significantly lower when compared to immediately after LLLI (M=0.06): t=2.89, p< .01, and 3 months of follow up (M=0.03): t=3.17, p< .01. Mean values of PBI were significantly lower when compared to immediately after LLLI (M=0.31): t=7.67, p< .01, and 3 months of follow up (M=0.04): t=8.65, p< .01.

Conclusion: The results are suggesting the importance of low-level diode laser irradiation in periodontal pocket depth reduction.

Keywords: diode laser, non-surgical periodontal treatment, chronic periodontitis

PP – 2**ASSESSMENT OF THE STATE OF THE PARODONTIUM IN CHILDREN 12 YEARS IN PODGORICA**

Mirjana Djurickovic

Faculty of Medicine, Podgorica

Background. Periodontal diseases, especially gingivitis, are steadily increasing in children. The aim of this study was to determine the periodontal health status of children aged 12 years.

Methods and materials. The survey included 159 children of both sexes who live in the territory of Podgorica Municipality, who came for dental examinations at the Faculty of Medicine during 2015/2016. years. Only children under 12 years of age, medically healthy and without mental, physical and sensory handicaps were included in the study. Only those children whose parents gave their consent were included in the study. The Green-Vermillion Plak Index (PI) was used to determine oral hygiene. Gingival health was assessed using a gingival index (GI), described by Löe-Silness. Periodontal status assessment was registered using the CPI Index (Community Periodontal Index).

Results. The average PI value was 1.06 ± 0.55 and GI was 0.9 ± 0.65 . Respondents had the highest percentage of moderate gingival inflammation. Healthy periodontium was observed in 18.6% of subjects.

Conclusion. Our results showed a high prevalence of gingivitis in children aged 12, suggesting that there are no preventative measures and programs in Montenegro. It is necessary to point out the importance of primary prevention through health education measures.

PP – 3**DENTAL HEALTH CARE FOR CHILDREN WITH SPECIAL NEEDS**

Danijela Subotic, Maja Delic

Clinical centre of Montenegro

Introduction:

Children with special needs are those who have or are at increased risk for a chronic physical, developmental, behavioral or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.

Aim :

The aim of this retrospective study was to determine most usually oral health problems with children with special needs and dental services that we provided them with in Clinical Centre of Montenegro during the period from 1.1. 2019 - 31.12. 2019

Methodology :

211 children with special needs , aged 1 to 18 years , where included in this study .They were examined during 2019 year on Department of preventive and child dentistry in Clinical Centre of Montenegro. Data was received from the records of patients.

Results :

Oral health problems :

- tooth eruption
- dental caries
- Periodontal disease
- Malocclusion
- Damaging oral habits can be a problem for children with disabilities and special needs.
- Tooth anomalies
- Trauma

Often, dental services that we provided these children with were:

- Prevention Measures – 18,70 %
- Restorative dental treatments – 36,01 %
- endodontic treatments – 0,5 %
- tooth extraction – 44.75 %

Conclusion :

A child with special needs are also responsible to take care of their mouth.
A large percentage of teeth extraction refers to the importance of promoting prevention program for these children.

PP – 4**OCCLUSAL SCHEME CHOICES IN IMPLANT DENTISTRY**

Daniela Djurovic Koprivica, Milica Jeremic Knezevic, Bojana Milekic, Aleksandra Maletin, Tatjana Puskar

Medical faculty of Novi Sad, University of Novi Sad

Introduction: Controversies about the choice of occlusal scheme for implant-supported prosthesis are highly represented. Majority of all concepts are based on those which refer to natural teeth occlusion and are applied, with a few modifications, to implant support restorations. However, there are a few big differences between natural teeth and implants, which need to be considered in implant restorations.

Method and materials: Natural tooth has much higher proprioception (about 20 µm) and occlusal awareness of implant is low, about 48-108µm. Also, the presence of periodontal ligament as a shock absorber in a natural tooth allow an apical intrusion by about 28 µm and lateral movement by around 50-108 µm. Due to a lack of periodontal ligaments around the implant there is no initial movement during the same load and delayed movement around 10-50 µm thanks to the viscoelastic properties of the surrounding bone.

Results: The ideal primary occlusal contact should stands within the diameter of the implant in central fossa and the secondary contact should remain within 1 mm of the periphery of the implants in order to increase implant stability and decrease the moment loads. Still, occlusal scheme depends of the type of implant restoration and species of antagonistic teeth.

Conclusion: In case of a full-arch fixed implant restorations, if the opposing arch is a complete denture, balanced occlusion is recommended. Group function or mutually protected occlusion with wide anterior guidance is solution when opposing natural teeth or a full-arch fixed prosthesis.

PP – 5**EARLY TREATMENT OF ANTERIOR OPEN BITE WITH LM ACTIVATOR**

Zorana Stamenkovic, Violeta Pajic, Branka Stanisic, Mladen Milosavljevic, Milka Bajic

Faculty of Dental Medicine University of Belgrade

An 8 years old female patient showed with a dentoalveolar open bite in Angle class I. At the beginning of the orthodontic treatment the overbite was -3.5mm open. She had a bad habit of sucking thumb at that time, as well. Lateral cephalogram analysis showed a skeletal class II without vertical discrepancies (

Based on the analysis, the orthodontic treatment was chosen LM activator. The patient wore the LM activator for the open bite one year, four hours per day and overnight.

After the treatment the overbite is 2.0mm in Angle class I and the patient has eliminated a bad habit of sucking thumb.

Conclusion

LM activator is very efficient appliance in treating this type of malocclusion.

PP – 6**ORTHODONTIC IMPORTANCE OF EARLY LOSS OF DECIDUOUS MOLARS**

Jasminka Andjelic

University of Montenegro, Faculty of Medicine, Study program of Dentistry, Podgorica, Montenegro

In the period of mixed dentition, one of the main problems is whether there will be enough space to accommodate canines, first and second premolars.

The aim of this study is to determine the extent of space loss resulting from premature extraction of deciduous molars.

The study included 30 patients who were examined and treated at the Tivat Health Center. The patients were children of both sexes, with mixed dentition and nine to eleven years of age. Dental records for each patient was filled in, the anamnesis was taken, the study model was made and a orthopantomograph was taken. Assessment of space loss for proper placement of permanent teeth was performed by analyzing study models using Moyer's analysis. Caries was the most common cause of premature loss of deciduous molars.

The results of the study showed that in every other child there was a space loss that is needed for accommodation of permanent teeth. The most common reason is the mesial displacement of first permanent molars, more so in the upper than in the lower jaw, with the inclination of first permanent molars in the lower jaw, and their rotation in the upper jaw.

Deciduous molars ensure proper replacement by permanent molars and premolars. Therefore, in the case of premature loss, space maintainers should be used to hold the space for a permanent tooth.

PP – 7**PREVALENCE OF PERI-IMPLANT DISEASES**

Papakoca Kiro¹, Mihajlo Petrovski¹, Terzieva-Petrovska Olivera¹, Papakoca Gordana², Proseva Ljubica¹

¹Faculty of medical sciences, Goce Delcev University; ²Dent Estet-Stip;

Background: Peri-implantitis is inflammatory condition caused by a bacterial origin and characterized by inflammation in the peri-implant soft tissues and a progressive loss of supporting bone. Mucositis is inflammation of the peri-implant mucosa without any bone loss. This main aim of this study was to determine the prevalence of peri-implant diseases, mucositis and peri-implantitis in two different types of implant systems.

Material and method: Total number of 44 implants placed in 30 patients was examined. Clinical examination of all placed implants was done. Clinical pocket depth and bleeding upon probing, plaque index, implant mobility, presence of suppuration and radiographic bone loss, were analyzed for every implant. We have compared two types of implants- conventional (20 implants) and platform switching (24 implants) after one year of loading.

Results: 70.45 % from all implants presented as healthy, 20.45 % from all implants presented peri-implant mucositis and 9.1 % of all implants showed signs for peri-implantitis. Platform switching implants showed lower incidence of mucositis and peri-implantitis, but there was not significant difference ($p = 0.575$)

Conclusion: Within the limitations of the current study, we have noted lower prevalence of peri-implantitis with platform switching Implants.

Keywords: peri-implantitis, mucositis, platform switching implants, prevalence

PP – 8

RADIOLOGICAL MEASUREMENTS OF TEETH - A COMPARISON OF TWO DIFFERENT SOFTWARE PROGRAMS

Jasmina Mlaćo Durek¹, Selma Zukić¹, Amra Ahmić¹, Lejla Kazazić¹, Alma Mušanović²

¹*Faculty of Dentistry with Clinics, University of Sarajevo;*

²*The Public Institution Health Centre Fojnica*

Introduction: There are many radiographic methods that are nowadays commonly used in medico-legal practice. The radiological evaluation of the dentition is simple, non-invasive and can be applied to living and non-living specimens, and is considered a reliable parameter in the evaluation of dental age. There are different software programs that can be used in the analysis of orthopantomographs.

The aim of this study is to examine the differences in radiographic measurements using various software programs

Methods and materials: The sample of this study consisted of 300 orthopantomographs of persons aged 13-23 years. The third molar maturity index was recorded according to the method of Cameriere et al. For the purpose of software analysis of radiographs parameters we used ImageJ and Microdicom software. The width of the open apices and the height of the teeth were measured using two software programs (ImageJ and Microdicom). The third molar maturity index (I3M) was derived from these measurements. We compared individual measurements and third molar maturity index by using the statistical analysis (a paired sample t-test) obtained using two software programs.

Results: There are statistically significant differences in open apices and third molar maturity index measurements obtained in ImageJ and Microdicom.

Conclusion: There are differences in results of measurements and analysis conducted in various software programs. Considering that the original Cameriere's formula implies the utilization of ImageJ program for the radiographic calculations, the use of another program must be under certain caution, especially if the analysis is conducted for age estimation in medico-legal cases.

PP – 9**THE EFFECTS OF BAD HABITS ON COLONIZATION CANDIDA ALBICANS IN THE ORAL CAVITY OF STUDENTS OF THE FACULTY OF DENTISTRY IN SARAJEVO**

Sanja Hadzic, Mirjana Gojkov, Enes Pasic, Indira Jahic, Arma Muharemovic

Faculty of dentistry, Sarajevo

INTRODUCTION: *C. Albicans* is a saprophyte that colonizes oral mucosa and other mucous membranes in the human body. Local and systemic etiological factors can increase the number and pathogenicity of candida, which causes candidiasis. Local predisposing factors for oral candidiasis are oral mucosal diseases, oral epithelial dysplasia, dry mouth (xerostomia), antibiotic treatment, poor oral hygiene, bad habits, malnutrition, iron deficiency, folic acid deficiency.

OBJECTIVE: Our research aims to determine the influence of bad habits, cigarette and hookah smoking, alcohol consumption on the colonization of *Candida albicans* in the oral cavity of a student population of the Faculty of Dental Medicine in Sarajevo.

MATERIALS AND METHODS: The fourth, fifth and sixth-year students of the Faculty of dentistry in Sarajevo participated in this cross-sectional study. Around one hundred students were planned to be examined. The inclusion criteria require the students to be systemically healthy, not to take any therapy, and to consume some of the harmful substances listed in the work charts. The exclusion criteria are that students have some systemic illness, and to be taking some therapy.

All of the respondents are asked questions about bad habits, and ways of conducting oral hygiene, after that they undergo the clinical examination.

RESULTS: The results are going to be statistically processed and discussed along with the results of other authors published in relevant databases.

CONCLUSION: The conclusion is going to consist of relevant facts that originate from the results and the discussion.

KEYWORDS: students, smoking, alcohol, hookah, *Candida albicans*.

PP – 10**PRE-PROSTHETIC ORTHODONTIC TREATMENT IN DEEP BITE CASES****Dragan Petrovski, Jasna Petrovska, Stojan Petrovski*****UKIM Faculty of Dentistry***

The objective of a preprosthetic orthodontic treatment is to move the teeth in a favorable position, in order to make a treatment with (fixed) dental prostheses possible or simplified. For deep bite cases with early loss of teeth, a treatment with fixed dental prostheses is usually indicated after correction of anterior deep bite. This helps to achieve sufficient clearance for fabrication of fixed prosthesis.

The aim of this paper is to review some prosthetic and orthodontic considerations during treatment of complicated deep bite cases.

The treatment options for deep overbite problems depend on the presenting situation and the patient's complaints. They may range from the provision of a simple removable appliance to multidisciplinary care involving orthodontics, orthognathic surgery and restorative dentistry. Irrespective of the treatment complexity, it should aim to sustain the periodontal health and improve occlusal stability, function and aesthetics.

PP – 11**THE CORRELATION BETWEEN BRUXISM AND MENTAL DISORDERS**

Arion Xhemali¹, Alketa Qafmolla², Viktor Kasapi¹

¹Aldent University; ²Faculty of Dental Medicine

Depression is a complex mental and emotional state which negatively affects mental productivity and movements. Such a situation gives rise to impulses in the hypothalamus, which leave traces in the extrapyramidal system going into the globus pavidus. In such cases such impulses arise that cause the teeth to constrict. Often such depressive patients who have imbalances in neuro-psychiatric function are unaware of such dysfunctional habits.

Purpose of the study: To observe the correlation that exists in patients with mental disorders and bruxism.

Material, methodology: Thirty patients with mental disorders at the University Medical Center of Tirana “Mother Teresa” psychiatry ward were studied. Patients age 20-60 years. The control group consisted of 119 persons aged 18-25 years. Based on a questionnaire we verified the presence of bruxism, abrasion, etc.

Treatment for both groups was combined therapeutic-prosthetic.

We received treatment results after 6 months.

Results and discussion: The study group consisted of 30 patients (13 females and 17 males) while the control group consisted of 119 students (70 females and 49 males). The results of the study show that there is a statistically significant relationship between the two groups in relation to bruxism because the value of $p = 0.01$ (80% with 50.04%).

The consequence of bruxism is, among other things, the abrasion that the results of the study showed statistically significant relation between bruxism and abrasion in both groups ($p < 0.001$). Combined treatment of both groups showed no statistically significant association for 6 months ($p > 0.5$).

Conclusion: From our study we conclude that Bruxism has a statistically significant association with mental disorders ($p > 0.01$).

PP – 12**OCCUPATIONAL HEALTH PROBLEMS AMONG DENTISTS IN SARAJEVO CANTON**

Dzejran Mocevic¹, Azra Jeleskovic², Aida Selmanagic³, Lejla Redzepagic-Vrazalica²

¹*Private Practice for General Dentistry, Sarajevo, Bosnia and Herzegovina;*

²*Department of Orthodontics, School of Dental Medicine, University of Sarajevo, Bosnia and Herzegovina;* ³*Department for Dental Morphology, Dental Anthropology and Forensic Dentistry, School of Dental Medicine, University of Sarajevo, Bosnia and Herzegovina*

Background: Occupational diseases, their treatment and, above all, prevention, are receiving increasing attention in modern medicine. Dentistry is one of the interesting areas with a high risk of having a series of occupational obligations and health disorders. The research focused on occupational risks and health problems among dentists in the Canton of Sarajevo, and also the whole Bosnia and Herzegovina was not available in the literature. The aim of this research is to determine the frequency of occupational health problems in order to gain insight into the status and placement of dentists and occupational diseases in case of individual and institutional promotion of the importance of maintaining health as a precondition for long-term and successful practice in dental activities. Methods and materials: Dentists from the Sarajevo Canton will be invited, by e-mail, to participate in a voluntary online survey on occupational health disorders. The inclusion criterion for participation is the condition that the respondent has spent at least one year in dental practice. Respondents will be offered a survey questionnaire. Results: Results of the survey will be statistically processed, both by descriptive statistics and by statistical checks to test the level of correlation of the examined variables. Conclusion: Based on the obtained results, conclusions will be formulated from which the recommendations of the conducted research will be derived.

PP – 13**KNOWLEDGE OF PEDIATRITIANS IN PRIMARY AND SECONDARY RELEVANT TO TERTIARY HEALTH INSTITUTIONS TOWARDS USE OF FLUORIDE**

Zoran Mandinic, Mila Šupic, Aleksandra Prokic, Mirjana Ivanovic, Jelena Mandić

Clinic for Preventive and Paediatric Dentistry School of Dental Medicine University of Belgrade

This research aims to evaluate the attitudes and knowledge of medical doctors employed in primary and secondary health care institutions concerning physicians employed in a tertiary health care institution, as well as to raise their awareness of the importance of fluoride prophylaxis.

METHODS AND MATERIALS: We distributed the 37 questionnaires to the doctors of pediatric in Belgrade. In the anonymous study, 33 physicians participated. The questionnaire was divided into four sections; demographics, general knowledge about fluorides, the action mechanism of fluoride and application of fluoride in children.

RESULTS: The research shows that out of 33 completed surveys, 18 doctors are employed in primary and secondary health care facilities, while 15 of them are employed in tertiary health care facilities. In the tertiary institution, the highest number of surveys was completed by a pediatric specialist (10), while in other institutions the largest number was filled by a pediatric specialist (12). Doctors at the tertiary institution state that 12 of them examine the soft and hard tissues of the oral cavity; while in other institutions, all 18 doctors indicated that they regularly check and advise patients to visit the dentist. The results showed that 97% of doctors believe that fluoride affects prevent dental caries, but only 10 doctors in tertiary health care facility responded that they are informed with the action mechanism of fluoride, while 7 doctors confirmed the same thing in other institutions.

CONCLUSION: The data from this research, obtained in the survey, indicate the need to improve physicians' awareness and knowledge of fluoride administration through future training and education that will help our youngest population.

PP – 14**AN EVALUATION OF FACTORS AFFECTING PREFERENCE OF DENTAL IMPLANT TREATMENT****Filiz Yagci***Erciyes University*

Background.The aim of this study was to investigate the rate of individuals preferring implant treatment in cases where dental implants were indicated, and to investigate the factors affecting this choice by means of a survey.

Methods and materials.This study was performed on 231 subjects who referred to the Department of Prosthodontics, Faculty of Dentistry, Erciyes University. Age, gender, education and income levels, teeth losses, implant preferences of the subjects were recorded. It was also noted whether additional surgical procedures were required, which is a factor that may affect implant treatment choice. The relationship between the prosthetic restoration that the individuals were currently using and the treatment preference was also examined. The reasons for not preferring implant treatment were investigated. Data were analyzed with Chi-Square tests. ($\alpha=0.05$)

Results.Anterior-posterior tooth deficiency rate was 61.9%, posterior tooth deficiency was 34.6%, and anterior tooth deficiency was 3.5%. 20.7% of the subjects were edentulous. Reasons for not preferring implant treatment were 68.8% cost, 15.6% surgery fear, 9.4% both surgery fear and cost, 4.2% long treatment period, 2.1% additional surgical procedure needed. 58.4% of the subjects preferred implant treatment (63% female, 37% male). It was observed that those who using fixed prosthesis, preferred fixed (19.8%) or fixed implant prosthesis (57%); it was observed that subjects using removable prosthesis, preferred removable prosthesis (51.9%) or implant overdenture. (25.9%) ($P=0.000$)

Conclusion.Treatment cost was found to be the most effective factor on treatment modality preference. It was observed that the individuals tended to maintain their habits when preferring fixed or removable prosthetic treatment.

PP – 15

INFLUENCE OF ORTHODONTIC ANOMALIES ON PSYCHOSOCIAL STATUS

Dalia Mudrić Đurković¹, Amra Gusinjac Džanković², Vildana Džemidžić³, Belma Mešković³, Alisa Tiro³

¹Dental studio D&D; ²P.S.O. "Gusinjac"; ³Faculty of Dentistry

ABSTRACT

According to the definition, malocclusions represent an incorrect relationship of teeth within the dental arch as well as an incorrect relationship with teeth from the opposite dental arch. Malocclusions are not a disease but a variation in the growth and development of the orofacial system. There are a number of indices and various questionnaires in assessing the severity of malocclusion and the degree of dysfunction of the orofacial system.

The aim of the research was to examine the influence of orthodontic irregularities on the psychosocial status of the respondents.

Matter and methods:The sample consisted of patients from the Department of Orthodontics for whom orthodontic treatment was indicated. The assessment of the need for orthodontic treatment was performed using the index of the need for orthodontic treatment (IOTN), namely the components of dental health (DHC) and aesthetic components (AC). The PIDAQ questionnaire will be used to assess the psychosocial aspect of dental aesthetics.

Results:Preliminary results show that all subjects need orthodontic therapy in the range of 2 to 5 IOTN (DHC and AC). The psychosocial impact of dental aesthetics (PIDAQ) is positively correlated with the severity of orthodontic irregularity, assessed on the basis of IOTN. The results of the research on the respondents were processed and presented with graphic drawings.

Conclusion:Correction of orthodontic irregularities improves the growth and development of the jaws, enables adequate performance of functions, improves facial aesthetics, which finally enables proper psychosocial development of the person.

PP – 16**ORAL HYGIENE EDUCATION OF VISUALLY IMPAIRED CHILDREN**

Sofia Sotiropoulou¹, Ioanna Arvanitopoulou¹, Anastasia Dermata², Aristidis Arhakis²

¹National and Kapodistrian University of Athens; ²Aristotle University of Thessaloniki;

INTRODUCTION

VISUAL IMPAIRMENT IS AN IMPORTANT PUBLIC HEALTH PROBLEM WORLDWIDE. STUDIES SHOW THAT POOR ORAL HYGIENE, DENTAL CARIES AND VARIOUS LEVELS OF PERIODONTAL DISEASES, ARE FREQUENT IN VISUALLY IMPAIRED CHILDREN. HOWEVER, WITH THE PROPER GUIDANCE FROM PARENTS AND HEALTH PROVIDERS, THEIR ORAL HEALTH STATUS COULD BE SIGNIFICANTLY IMPROVED LEADING TO AN UPGRADED QUALITY OF LIFE.

PURPOSE

THE AIM OF THIS POSTER IS TO PRESENT VARIOUS INNOVATIONS OF ORAL HEALTH EDUCATION MEDIA AND SUPPORT THE BEST APPROACH FOR PROMOTING ORAL HYGIENE OF CHILDREN WITH VISUAL IMPAIRMENT.

METHODS AND MATERIALS

USING KEY WORDS SUCH AS: ‘VISUALLY IMPAIRED CHILDREN’, ‘BLIND CHILDREN’, ‘ORAL HEALTH EDUCATION METHODS’ ON PUBMED, SCOPUS AND GOOGLE SCHOLAR WE SEARCHED THE LITERATURE EXTENSIVELY AND COLLECTED USEFUL DATA.

RESULTS

AUDIO, BRAILLE BOOKLET, AUDIO-TACTILE PERFORMANCE, MUSIC BASED BRUSHING TECHNIQUE, CAST MODELS OR COMBINATIONS OF THESE METHODS WERE FOUND TO BE UTILIZED AS THE ALTERNATIVE MEDIA INNOVATION OF ORAL HEALTH EDUCATION FOR VISUALLY IMPAIRED CHILDREN. COMBINED TECHNIQUES PROVED TO BE THE MOST EFFECTIVE WAY TO REDUCE THE RISK OF DENTAL CARIES AND GINGIVAL DISEASE IN CHILDREN WITH VISION DISABILITY.

CONCLUSION

VISUALLY IMPAIRED CHILDREN FACE DIFFICULTIES SUCH AS LACK OF HAND-EYE COORDINATION, WHICH CAN AFFECT THE QUALITY OF THEIR ORAL HYGIENE. THEY DEPEND MORE ON SOUND, SMELL, TOUCH, TASTE, AND SPEECH TO ORIENT THEMSELVES TO A SITUATION. SUCH CHILDREN HAVE AN EQUAL RIGHT TO RECEIVE THE PROPER ORAL HEALTH EDUCATION AND PUBLIC AWARENESS SHOULD BE RAISED, SO AS DENTAL PROFESSIONALS AND PARENTS ENCOURAGE THEM TO CONDUCT THEIR ORAL HYGIENE EFFECTIVELY AND INDEPENDENTLY.

PP – 17**COMMON ORAL MUCOSA CHANGES IN PATIENTS WITH DIABETES MELLITUS TYPE 1 AND 2**

Mia Hodžić, Džejma Suljić Hujčić, Sanela Arslanagić, Sanja Hadžić, Enes Pašić

Faculty of Dental Medicine

Introduction: Diabetes mellitus is a disease characterised by elevated blood sugar levels due to complete or partial insulin deficiency or insulin resistance. There are two types: type 1 (inability to produce insulin) and type 2 (incorrect reaction to insulin). In the oral cavity, diabetes most often affects oral mucosa. **Aim:** Examine the frequency of changes in the oral mucosa in patients with diabetes mellitus type 1 and 2.

Material/methods: The sample included 50 subjects with diabetes mellitus divided into two groups: 25 with type 1 and 25 with type 2. The study was based on history, clinical examination and laboratory diagnostics. The anamnestic protocol provided information on the subjects' age and sex, the duration of diabetes, the presence of other systemic diseases, poor habits and subjective problems. Clinical examination revealed some clinical tests, the presence of prosthetics and duration of their presence and also types and the frequency of changes in the oral mucosa. Oral tests and laboratory diagnostics showed xerostomia and the presence of *Candida albicans* infection.

The results of clinical trials showed that xerostomia and candidiasis were dominant in the subjects in both groups.

Conclusion

Patients with diabetes mellitus both types showed changes in oral mucosa.

PP – 18**DIGITAL MODELS VS PLASTER MODELS: IS THERE A DIFFERENCE?**

Nukić Velida, Tiro Alisa, Redžepagić-Vražalica Lejla, Jelešković Azra, Džemidžić Vildana

Univerzitet u Sarajevu, Stomatološki fakultet sa klinikama

Introduction: Study model analysis is one of the more important parts of diagnostic protocol in orthodontics and plaster models are commonly used. The use of intraoral scanners provides a significant advantage because it allows obtaining digital dental models without the need for impressions.

Purpose: The purpose of this study was to determine the accuracy of measurements of overall and anterior Bolton ratio obtained by intraoral scanner compared to standard caliper measurements on plaster models.

Material and methods: This study included 30 subjects (17 female and 13 male), aged 12 to 18 years. All subjects were taken impression for the purpose of making study plaster models. In addition, all subjects underwent intraoral scanning for the purpose of creating digital models. Tooth width was measured with a caliper on plaster models, while using Cerec Ortho SW 2.0.2 software analyzed digital models. The overall and anterior Bolton ratio were derived using both methods. Statistical data processing was performed using an independent t-test.

Results: The results obtained using these two methods for measuring the anterior and overall Bolton ratio showed that there was no statistically significant difference in the measurements obtained on plaster models and the measurements obtained by intraoral scanning. For the overall Bolton ratio, T-test was 0.737 and is not statistically significant ($p < 0.05$). The value of T-test for the anterior Bolton ratio was 0.008 and it was also not statistically significant ($p < 0.05$).

Conclusion: Determining the overall and anterior Bolton ratio using an intraoral scanner is an accurate and acceptable method for clinical work in orthodontics.

PP – 19**FREQUENCY OF MAXILLARY CANINE IMPACTION - A RETROSPECTIVE RADIOGRAPH STUDY**

Karić Sanjin, Muminović Amra, Babačić Rafeta, Džemidžić Vildana, Tiro Alisa

Univerzitet u Sarajevu, Stomatološki fakultet sa klinikama

Introduction: Impactions are described as delayed tooth eruptions or the primary retention and they are used to describe a tooth that is unable to erupt properly, which means that tooth either has not erupted when expected or a tooth that is restrained to erupt in a normal way. The maxillary canines are the second most frequently impacted teeth. The prevalence of their impaction is 1-3 % in European population.

The aim of this study is to determine frequency of maxillary impacted canines in orthodontic patients.

Materials and methods : This radiograph retrospective study was conducted using digital panoramic radiographs of 4200 orthodontic patients, taken during period from 2019. to 2021. The positions of the maxillary canines, their angulation in relation to the occlusal plane and the relationship with adjacent teeth were analyzed on the images.

Results: Impacted canines were confirmed in 132 orthodontic patients, which is 3.14% of total number analyzed images. From the total of selected and analyzed radiographs 88 (67 %) were female and 44 (33 %) were male patients. Out of 88 female patients, 13 of them (15 %) had bilateral impaction and 75 (85 %) had unilateral impaction. In male patients , 4 of them (9%) had bilateral impaction and 40 patients (91%) had unilateral impaction.

Conclusion :

- The frequency of impacted maxillary canines in orthodontic patients is 3,14 %
- The frequency of impacted maxillary canines occurs twice in females as in males
- Unilateral impactions are more frequent than bilateral impactions of maxillary canines

PP – 20**VITAL TEETH BLEACHING TREATMENTS WITH IN-OFFICE BLEACHING : THE CASE REPORTS**

Gurkan Gur¹, Gurcag Gur², Sevkan Ozkan¹, Cagatay Cakar¹

¹Ankara Universty Faculty of Dentistry Department of Restorative Dentistry, TURKIYE; ²Ankara Universty Graduate School of Health Sciences Department of Restorative Dentistry, TURKIYE

Introduction : Dental bleaching is one of the preferred treatments by patients to improve facial attractiveness. It is a relatively simple and conservative technique that makes possible to change dental colour by removing discolorations.

Aim: The aim of this multiple case reports is to demonstrate the in-office bleaching treatment in vital discolored teeth.

Materials and methods : Four different patients applied to our Faculty for whitening treatment at different times. In clinical examinations, we detected extrinsic discoloration of the teeth. For this reason, we decided to apply office bleaching treatment (Opalescence BOOST, Ultradent Products INC., USA). First of all, measures were taken to protect the lips, gums and oral mucosa. Gums were covered with gingival barrier (OpalDam Green, Ultradent Products INC., USA). Insolation was provided with cotton pellets. 40% Hydrogen Peroxide was applied to the maxillary and mandibular teeth inculuding between the second premolars. After 20 minutes of application, hydrogen peroxide was carefully removed with water and cotton pellets have been replaced. After that, a second 20 minutes application was made with the whitening agent. When the application period was over, it was removed with water and the gingival barrier has been removed.

Conclusion : Patients were advised to stay away from products containing coloring dark colors such as cigarettes, tea, coffee, chocolate, red wine, cherries, tomato paste for two weeks. At the controls two weeks later, it was seen that the aesthetic expectation of the patients was met.

PP – 21**ASSESSMENT OF PERIODONTAL HEALTH AMONG PATIENTS REFERRED TO ORTHODONTIC EXAMINATION**

Redzepagic-Vrazalica Lejla¹, Jeleskovic Azra¹, Mujić-Jahić Indira², Kalender Selma³, Malicbegovic Dea⁴

¹Faculty of Dentistry with Clinics, Department of Orthodontics; ² Faculty of Dentistry with Clinics, Department of Oral Medicine; ³Private Clinic Dr.Denis Malicevic; ⁴Private clinic Smile;

Background: Oral health is an integral part of general health and an important factor in overall quality of life. Periodontal diseases have a multifactorial etiology, and poor oral hygiene and the consequent accumulation of plaque play a major role in both the onset and development of periodontal disease. Periodontal patients in orthodontic therapy require special attention and oral hygiene in such patients must be perfect. The presence of plaque, tartar or any other acute inflammation of the gingiva delays the start of orthodontic therapy.

THE OBJECTIVE OF THE RESEARCH was to determine the level of oral hygiene and the state of periodontal health among children and adolescents referred for the first orthodontic examination.

Methods and materials: The research was conducted at the Faculty of Dentistry with the clinics of the University of Sarajevo, at the Department, and the Clinic for Orthodontics. The study included all patients referred for the first orthodontic examination within two months. The following were evaluated by clinical examination: Silness and Loe plaque index, Silness and Loe tartar index, Silness and Loe gingival index, Papilla Bleeding Index.

Results: The results will be published after the statistical processing. The results of the research should show the importance of cooperation between orthodontists and dentists in general, and orthodontists and periodontists in particular.

Conclusion: Adequate conclusions will be published based on the obtained results.

PP – 22**LONG-TERM TEMPORARY, CANTILEVERED ADHESIVE RESTORATION: A CLINICAL REPORT****Bahar Elter Tolay***Private Practice*

Background: The 15-year-old patient with a history of trauma and related external tooth resorptions underwent extraction of the maxillary left lateral tooth due to excessive hard and soft tissue loss. With the aid of digital technology, a non-invasive resin bonded glass-ceramic restoration was planned that will not interrupt the growth of the jaw and give back the esthetic until the age at which implant application is indicated.

Methods and materials: Digital impressions of the patient were taken with an intraoral scanner (Trios3, 3Shape) and the restoration was designed with a software (inLab CAD SW 19) including the retainer, cantilevered lateral tooth and the gingival parts. The retainer area was chosen as the palatal surface of the adjacent canine tooth which was free of any occlusal contacts. After the design, the wax restoration was milled from wax (Dentsply Sirona Wax CAD/CAM Blank) and the final restoration was manufactured from lithium disilicate glass-ceramic (IPS e.max Press) using a press technique. Liquid pink ceramic (MIYO, Jensen) was added manually at the gingival portion before the stain and glaze of the restoration. After trying the fit, the restoration was cemented with a dual-curing resin cement (Panavia V5) following the manufacturer's instructions.

Results: The result fulfilled the expectations of the patient as the treatment was non-invasive, and the esthetic was acceptable.

Conclusion: This clinical report describes the presentation of a maxillary lateral tooth replacement including the gingival area as a long-term temporary adhesive restoration.

PP – 23**AESTHETIC REHABILITATION OF THE ANTERIOR REGION WITH SILICON KEY TECHNIQUE: A CASE REPORT****Savas Sagmak, Ömer Çellik***Adıyaman University*

Aim: Direct restoration of anterior teeth is very difficult. The aim of this case presentation is to create an ideal anatomical form using the silicone matrix technique.

Method: A 19-year-old female patient was admitted to our clinic with a history of trauma. It was determined that the patient had an enamel-dentin fracture as a result of trauma in tooth #11. It was decided to restore the tooth with composite resin using the silicone matrix method. A silicon matrix was formed on the resulting model. Chamfers were made at an angle of 45 degrees with a flame-tipped bur. 37% orthophosphoric acid (Universal Etchant, 3M ESPE) was applied to the enamel for 30 seconds. Then it was polymerized by applying the Bond Force II (Tokuyama) system. Nanohybrid composite material (Estelite Asteria-Tokuyama) was placed on the silicone guide to form the palatal surface of the tooth. Then, after 20 seconds of light polymerization, the silicone guide model was removed from the mouth. Thin enamel layer was obtained in the palatal region. After creating the interdental contact areas with the kidney matrix band, the vestibule surface was completed by applying dentin and enamel composites. Polishing discs (3M ESPE Sof-Lex) are finished.

Result: Creating the palatal anatomical form in anterior composite restorations is very important for both occlusion and patient comfort. With the silicone matrix technique, the palatal anatomy can be shaped on the model and transferred to the restoration.

Keywords: Silicone matrix, esthetics, direct restoration

PP – 24**DENTIGEROUS CYST ASSOCIATED WITH ENDODONTICALLY TREATED PRIMARY PREDECESSOR: A RARE CASE REPORT****Naida Hadziabdic¹, Amila Balic², Edina Lazovic³**

¹Faculty of Dental Medicine with Clinics, University of Sarajevo, Department of Oral Surgery; ²Faculty of Dental Medicine with Clinics, University of Sarajevo; ³Faculty of Medicine, University of Sarajevo, Department of Pathology

This article presents a case report of an inflammatory dentigerous cyst of tooth 35, associated with its previously endodontically treated deciduous predecessor. Cystic lesion growth caused impaction of the second premolar, displacing it closer to the lower border of the mandible. The lesion represents a typical dentigerous cyst that possibly arose in association with periapical inflammation from a deciduous molar involving the follicle of premolar. This report highlights the inflammatory etiology of dentigerous cysts, which mainly occur in mixed dentition.

A 12-year-old patient was referred to Oral Surgery Department regarding a sizeable radiolucent lesion in the unerupted mandibular second premolar region, detected on an OPG. A non-vital primary predecessor had been endodontically treated at least two years before an examination, with control OPG showing no signs of pathology at the time. The patient did not report any symptoms. Clinical examination revealed an egg-like tumefaction of alveolar bone in the left premolar region of the mandible. CBCT analysis showed a sizeable translucent lesion surrounding a crown of the impacted tooth. Local anesthesia was applied, and the lesion was enucleated in toto, together with the impacted premolar. Clinical findings combined with radiographic and microscopic examinations confirmed the diagnosis of inflammatory dentigerous cyst. The 1-year follow-up revealed good bone healing.

This case presented a rare complication of endodontic treatment of deciduous teeth and informed on possible complications of endodontic therapy in deciduous teeth, emphasizing the importance of early diagnosis of cysts in preventing extraction of permanent teeth.

PP – 25**EVALUATION OF FACTORS AFFECTING ORAL HEALTH IN CHILDREN AND ADOLESCENTS IN BOSNIA AND HERZEGOVINA**

Jasmin Habibović¹, Edina Habibović², Kenan Demirović³, Jasmina Durek Mlaćo⁴, Alisa Tiro⁵

¹*Public Health Institution Živinice, Alije Izetbegovića 17, 75270 Živinice, Bosnia and Herzegovina;*

²*Public Health Institution Gračanica, Muhameda Ahmedbegovića 50, 75320 Gračanica, Bosnia and Herzegovina;*

³*Practice for Dentofacial Orthopedics and Orthodontics “Demirović”, Bjelave 70, 71000 Sarajevo, Bosnia and Herzegovina;*

⁴*Public Health Institution Bugojno, Wagnerova 15 70230 Bugojno, Bosnia and Herzegovina;*

⁵*Department of Orthodontics School of Dental Medicine University of Sarajevo Bolnička 4a, 71000 Sarajevo, Bosnia and Herzegovina*

Background: This investigation was conducted in Bosnia and Herzegovina and included 306 subjects of both genders. The objective of this investigation was to evaluate the factors affecting oral health in children and adolescents. **Materials and methods:** The sample of this investigation consisted of 306 subjects aged 15 to 18 years old who met the inclusion criteria. The survey was conducted between the December 2019 and March 2020 in the high schools located in the region of Tuzla Canton. Oral health status of each subject was evaluated using a questionnaire of the World Health Organization (WHO). Data obtained from the WHO questionnaire provided information about the oral-hygienic habits and risk factors responsible for oral health of each subject. Interview format of questionnaire gave additional information about some questions reducing the possibility of subject's erroneous answers. **Results:** The results of this study showed poor oral health status of subjects aged 15 to 18 years old. Based on the findings over 40% of samples consume sweets, cakes and biscuits on daily base, while 41,5% of the samples visit a dentist just in case of pain. More than half (52%) participants were dissatisfied with their tooth appearance. The obtained results were statistically evaluated and presented in tables and graphs.

Conclusion: This study provided data about the factors affecting oral health in children and adolescents. Data obtained from this study might help in creation of a new prevention programs aimed at improving oral health status of children and ado

PP – 26**EVALUATION OF CLINICAL PERFORMANCE OF UNIVISS IN OCCLUSAL CARIES DETECTION**

Anita Bajsman¹, Dario Puljić², Amra Ahmić¹, Selma Jakupović³, Selma Zukić¹

¹*Department for Dental Morphology, Dental Anthropology and Forensic Dentistry, Faculty of Dentistry, University of Sarajevo, Bosnia and Herzegovina;*

²*Private Practice Dental Id, Kreševo, Bosnia and Herzegovina;*

³*Department for Dental Pathology and Endodontics, Faculty of Dentistry, University of Sarajevo, Bosnia and Herzegovina;*

There is a large number of visual systems for describing carious process propagation on dental surfaces. Despite numerous advantages, all these systems show some deficiencies. Wishing to overcome the deficiencies of visual systems for the detection and description of caries, a group of authors created Universal Visual Scoring System (UniViSS). This system is designed to compensate for the disadvantages of existing visual diagnostic systems, to meet the contemporary requirements set for caries detection / diagnosis and to be flexible.

The aim of this study was to evaluate diagnostic performances of UniViSS on occlusal surfaces in clinical conditions, through sensitivity, specificity, positive and negative predictive values.

The study involved 64 patients, and study sample consisted of 140 permanent molars with established occlusal caries lesion. During clinical examination, each lesion was classified according to UniViSS criteria, and laser fluorescence and digital radiography examination were performed. For ethical reasons, if two of three diagnostic methods confirmed existence of caries lesion, cavity was opened, as validation method. The depth of the lesion propagation was recorded using World Health Organization's graduated probe, as the distance between the deepest point of the cavity and enamel surface.

Results of study will be presented tabularly and compared to similar investigations through comparing sensitivity, specificity, positive and negative predictive values of registered UniViss scores.

PP – 27**THE COMPARISON BETWEEN THE CONVENTIONAL COMPLETE REMOVABLE DENTURES AND HOLLOW COMPLETE DENTURES**

Edit Xhajanka¹, Neada Hysenaj², Endrit Paparisto³

¹Faculty of Dental Medicine; ²University Dental Clinic; ³"Paparisto" Dental Clinic;

Background. The prosthetic rehabilitation of the patients with severe resorption of the residual ridges remains a challenge. The aim of our study was to compare the stability and retention between hollow dentures and traditional dentures. Materials and Methods. 46 patients, aged 50- 85 years old who came in the University Dental Clinic were divided into two groups: In the first group 23 patients were treated with hollow complete dentures and in the second group 23 patients were treated with traditional complete dentures. Denture stability and retention were evaluated based on the modified Kapur criteria. Results. The mean values of the retention and the stability for each group of dentures were calculated and compared. Based on the data of the study there was a significant difference between the two groups on the denture stability and retention ($p < 0,05$). The hollow dentures showed higher retention and stability compared to the traditional ones. The increased weight of the dentures causes higher pressure onto the residual ridges by increasing the level of resorption. In order to interrupt this cycle there is the necessity of the reduction of the weight of the complete dentures. Conclusion. There are cases where the systemic conditions of the patients or the economic reasons do not allow prosthetic restoration over implants. In the cases where the resorption of the residual ridges is severe, the construction of the hollow complete removable dentures is a convenient and logical solution.

PP – 28

ORAL MANIFESTATIONS IN CHILDREN WITH COVID-19 DISEASE

Andjelka Mladenovic¹, Dejan Markovic², Tanja Negovanovic³

¹Health Centre Kursumlija; ²Clinic for Pediatric and Preventive Dentistry, School of Dental Medicine, University of Belgrade; ³Private Specialist Dental Practice "Doc Kuljača";

Background: COVID-19 (Corona Virus Disease-19) is a disease caused by the new coronavirus SARS-CoV-2. It manifests itself from a mild cold to severe acute respiratory syndrome (SARS). Not much is known about the full effects of Covid-19, so the purpose of this study is to present the rate of oral manifestations in children with this disease that are documented.

Method and materials: The publications of PubMed medical researches database were analysed, based on key words "Covid-19", "oral manifestation" and "children".

Result : 31 publication from 2020. to 2022. is identified based on key words which monitored various phases of the Covid-19 disease manifestation, yet only two authors summarized the data about paediatric patients with oral manifestation of this disease. According to S. Halepas and associates, the average paediatric patient with this disease was nine years old. 48.9% of them had red or swollen lips, while 10.6% had strawberry tongue. Oral findings were associated with the presence of systemic rash and conjunctivitis. E. Bardellini and associates analysed paediatric patients with Covid-19 and noted oral lesions: 7.4% Pseudomembranous candidiasis, 3.7% lingua geographica, 7.4% coated (white) tongue and 37% pharyngeal hyperemia. Change in sense of taste occurred in 11% of patients.

Conclusion: Covid-19 is a disease manifested by nonspecific oral manifestations.

PP – 29**TREATMENT OF CROWN FRACTURE COMPLICATIONS IN A CARDIOVASCULAR PATIENT – A CASE REPORT**

Atina Bekan¹, Tamara Perić²

¹Community Health Center Kovacica; ²Faculty of dental medicine, University of Belgrade

BACKGROUND: The aim of the study was to present the management of endodontically treated injured young permanent teeth using fiber reinforced composite dental posts in a cardiovascular patient.

CASE REPORT: A patient aged 16 was admitted to the Clinic for Pediatric and Preventive Dentistry of the School of Dental Medicine, University of Belgrade, two years after the injury of maxillary central incisors. The patient was diagnosed with mitral valve prolapse. Dental clinical examination established enamel and dentine crown fracture without pulp exposure in both teeth. X-ray showed an extensive periapical lesion above the roots of the left maxillary central and lateral incisors. Conservative endodontic treatment in such a patient would require multiple prophylactic application of high dose antibiotics. To reduce the risk to general health, it was decided to perform periapical surgery. The patient was admitted to the Clinic for Oral Surgery where enucleation of the cyst was done along with preoperative antibiotic prophylaxis (Clindamycin 600 mg per os, 1h before the surgery and 6h after the surgery). Teeth were endodontically treated during the same visit. One month after the surgery, root canals of the right and left maxillary central incisors were prepared for fiber posts (Rely X Fiber Post, 3 M ESPE). The posts were fixed using the adhesive resin cement (Rely X Unicem, 3 M ESPE). Teeth were restored by placing layers of composite material (Gradia Direct, GC Int.) using a silicone key.

CONCLUSION: Multidisciplinary approach to dental treatment is of great significance in cardiovascular patients. Dental treatment of the patient with high cardiovascular risk has to be adapted to specific needs with the aims of achieving good oral health.

PP – 30**INFLUENCE OF REDUNDANT TEETH IN THE OCCURRENCE OF ORTHODONTIC ANOMALIES - A CASE REPORT**

Jovana Prijic¹, Jelena Mandic¹

¹Health Center Pancevo; ²Clinic for Pediatric and Preventive Dentistry, School of Dental Medicine, University of Belgrade

Background: To show the influence of excessive teeth on difficult and delayed eruption of permanent teeth and the occurrence of orthodontic anomalies.

Case report: At the Clinic for Pediatric and Preventive Dentistry, Faculty of Dentistry, University of Belgrade, a nine-year-old patient appears due to the impact of permanent teeth. It was anamnestically determined that after the extraction of the milk incisors, permanent teeth did not appear within the predicted eruption period. After radiography (orthopan and 3D CT image), three redundant atypical teeth were observed, one of which was in reverse spin. Since the redundant teeth cut over the permanent teeth and prevented their eruption, it was necessary to perform surgical extraction of the redundant teeth, and then continue the orthodontic therapy.

Conclusion : Early diagnosis and adequate surgical therapy are extremely important in preventing complications arising from the presence of excessive teeth. Difficult eruption, delayed eruption, tooth impaction, the appearance of ectopically set teeth, and thus the appearance of pathological concern.

PP – 31

POTENTIAL OF SALIVARY 8-HYDROXYDEOXYGUANOSINE (8-OHDG) LEVELS IN CLINICAL EVALUATION OF CHRONIC PERIODONTAL DISEASE SEVERITY

Aida Hafizovic¹, Mirjana Gojkov-Vukelic¹, Enes Pasic¹, Muhamed Ajanovic², Merima Balavac-Orlic³

¹*Clinic of Oral medicine and Periodontology, Faculty of Dental medicine with Clinics, University of Sarajevo;*

²*Department for Dental prosthetics, Faculty of Dental medicine with Clinics, University of Sarajevo;*

³*Department of Quantitative Economics, Faculty of Economics and Business, University of Sarajevo;*

Background: Hydroxyl ion's addition to guanine results in formation of 8-hydroxydeoxyguanosine(8-OHdG) whose salivary levels are used in estimation of oxidative DNA-damage within chronic forms of periodontal disease. Chronic gingivitis is determined by reversible lesions of gingiva. Chronic periodontitis involves losses of epithelial junction and bone, both considered irreversible.

Material and methods: 105 participants of 3 groups, systemically healthy adults, non-smokers having at least 20 teeth. First group: probing depth up to 2 mm, lacking periodontal disease. Second: chronic gingivitis, probing depth to 3 mm. Third: chronic periodontitis, real pocket probing depth more than 3 mm. Each participant was provided with clinical evaluation done by using periodontal indexes: plaque (PI), gingival (GI), calculus (CI), papilla bleeding index (PBI), probing depth (PD), clinical attachment loss (CAL), third group followed by x-rays due to bone loss confirmation. 105 non-stimulated saliva samples were collected, immediately centrifuged at 3000g for 10 minutes, stored at -20°C following -80°C until lab analysis done by competitive ELISA, measured spectrophotometrically at wavelength of 450 nm \pm 2 nm. Results: Showed statistically significant higher mean values of 8-OHdG within both groups of diseased compared to healthy. 8-OHdG mean values of diseased linearly and respectively support higher mean values of clinical parameters probing depth and clinical attachment loss within both groups compared to healthy participants.

Conclusion: Salivary 8-OHdG levels reflect severity of periodontal tissue destruction within both groups of periodontal chronicities described by pocket depth and clinical attachment loss.

Key words: oxydative damage, salivary 8-OHdG values, severity, chronic periodontal disease

PP – 32**DENTURES IN MANDIBULA ON LOCATOR****Dea Krstičević¹, Mihael Stanojević², Miroslav Lučić³***¹School of Medicine University of Mostar; ²Faculty of Medicine Foča; ³Stomatology MODENT 1;*

Dentures with LOCATOR are used for patients who don't have any teeth in the jaw, but has enough bone to support standard implants. Using LOCATOR denture base is fastened to the dental implants in the jawbone and it stays firmly in place. Patients can put the prosthesis by themselves in or out of the mouth. It's easy to clean and maintain good oral hygiene.

First step was to place the implants in the jawbone and wait for 3 months allowing the bone and implant to heal. After that period, classic process of making acrylic dentures could be started. On the appointment, functional impressions were taken by the ordinary method, with individual spoon and elastomer. One way to make functional impression is to place locators impression coping on the implants. The working models had implant analogues and the wax bite was ready to determine the intermaxillary relations. The wax was tried on the patient and position, shape, colour and size for the new teeth were determined. Then the teeth are tried in a wax phase and checked esthetics, phonetics and function. After approval, the dentures are finalized in acrylic resin. Protheses were classic with an acrylic base. But one denture already had locators in the base placed in the laboratory and the other one wasn't. When locators were applied in the denture bases, everything was ready for insertion to the patients. Locators click on the right place, on implant abutment.

These kind of dentures are more stable, comfortable because the LOCATOR abutments keep it in place, but still allowing some freedom of movement.

PP – 33**FULL MOUTH REHABILITATION WITH IMPLANTS****Miroslav Lučić¹, Mihael Stanojević²***¹Dental office MODENT 1; ²Medical faculty Foca;*

In contemporary dentistry implants have widened our possibility to help toothless patients gain back their function and esthetics. Before implants those patients had the possibility to get a total prosthesis that was stabilised by underpressure or by the bone morphology. With the introduction of implants the possibilities have widened. It started with fixation of prosthesis with mini implants, standard implants with ball attachments, locator attachments, bar attachments and so on. But today our patients are more demanding, looking for more function and esthetics. Today's development in implantology and prosthetics on implants is giving us the possibility to offer to our patients a rehabilitation with fixed prosthodontic work.

In this case report we are showing the process of full mouth rehabilitation with implants and fixed prosthetic work. The patient came to dental office looking for a prosthetic solution. After careful examination and consultation with the patient it was decided to place implants in the upper and lower jaw as a base for a fixed prosthodontic work. After the healing period we started the prosthodontic procedure. Because the patient has lost his vertical dimension of occlusion we had first to determine that parameter and go on. At the same time we made impressions of implant position using open tray method. After that the abutment and framework were manufactured, and the vertical occlusal dimension was once more checked. In collaboration with the patient the color was determined. After the try in and reocclusion the fixed prosthodontic was fixed with long term temporary cement.

PP – 34**TOOTH LOSS AS AN ORAL HEALTH INDICATOR IN ADULT POPULATION OF BOSNIA AND HERZEGOVINA**

Lajla Hasić-Branković¹, Rusmir Arnautović², Samra Korać¹, Alma Konjhodžić¹

¹Faculty of Dentistry, University of Sarajevo; ²Private dental practice "Ardent"

INTRODUCTION

The aim of survey was to collect data of partial and total edentulous patients in Bosnia and Herzegovina, which were previously unavailable and to compare obtained data with other countries.

METHOD AND MATERIALS

The main method of conducting data was by analyzing panoramic radiographs from database of The Faculty of Dentistry with Clinics in Sarajevo. One thousand radiographs were analyzed, 500 in age group 35-44, and 500 in age group 65-74. The number of teeth lost, the prevalence of individuals with functional dentition (presence of < 21 natural teeth) and of edentulism (loss of all natural teeth) were estimated for adults and the elderly.

The study was coherent with FDI, WHO and IADR the Global goals for oral health 2020.

RESULTS

The average number of missing teeth in age group 35-44 was 8.5, 53.8% participants had functional dentition and 1% were edentulous. Considering the gender, women had fewer missing teeth, higher rate of functional dentition, but also higher rate of edentulism than men. In the age group 65-74, the average number of missing teeth was 16.5, 8,4% participants had functional dentition and 12,6% were edentulous. Regarding average tooth loss, men and women were at the similar level. Considering functional dentition and edentulism, men had better oral health status than women.

CONCLUSION

The Bosnia and Herzegovina is a country with a higher number of missing teeth, a lower degree of functional dentition, and a higher degree of total edentulousness in the adult population compared to other countries in the world.

PP – 35

COMPARATION OF ORTHOPANTOMOGRAM, LATERAL CEPHALOGRAM AND POSTEROANTERIOR CEPHALOGRAM FOR MANDIBULAR MEASUREMENTS

Ferija Sali, Vesna Trpevska¹, Daniela Srbinoska¹, Jasna Simonoska², Aneta Mijoska³, Gordana Kovacevska³

¹Department of Orthodontics, University Dental Clinical Center “St. Panteleimon”, Skopje, R. North Macedonia; ²Clinic for pediatric and preventive dentistry, University Dental Clinical Center “St. Panteleimon”, Skopje, R. North Macedonia; ³Faculty of Dentistry, Department of Prosthodontics, Skopje, Republic of North Macedonia;

Aim: To compare different imaging procedures such as Orthopantomography (OPG), lateral cephalometry (LC) and posteroanterior cephalometry (PA) for assessing the mandibular angular and linear values in order to clarify the possible application of OPG for evaluating mandular assymetry.

Material and methods: OPG, Lateral cephalogram and PA cephalogram was taken from 30 patients of age group 17-27 years. Linear measurments(mm): body length(Go-Me) and ramus height(Co-Go) as well as angular measurments(degrees): gonial angle were assessed both in lateral cephalogram, OPG and PA cephalogram. Indipendent t-test with probability level of $P < 0.05$ was performed for this comparison.

Results: There is no statistically difference in ramus height and gonial angle, while statistically significant diference exists for body length measured on OPG, lateral cephalogram and posteroanterior cephalogram. Angular measured values showed smaller deviations than linaear values. Go-Me shows the greatest degree of deviation.

Conlusion: Gonial angle and ramus height can be analysed on OPG as accurately as on the lateral cephalogram and PA cephalogram. Predicting horizontal measurments on OPG tend to be particularly unreliable because of nonlinear variation in magnification at different objects depths and should be performed with vigiliancy. Values measured on OPG should not be considered as absolute numbers, but as a numerical representation of the mandibular assymetry.

Key words: Mandular measurments, mandular assymetry, OPG, lateral cephalogram, PA cephalogram.

PP – 36**ORAL HYGIENE - A RISK FACTOR FOR THE DEVELOPMENT OF ORAL DISEASES IN YOUNG HEROIN ADDICTS**

Nina Dimitrijević Jovanović¹, Aleksandar Vasić¹, Nataša Pejčić Barać², Tanja Radenkov Medenica³, Dejan Marković²

¹Health center Zemun Serbia; ²School of dental medicine, University of Belgrade, Serbia; ³Addiction treatment hospital, Belgrade

Background - Numerous studies indicate that poor oral health is associated with the use of psychoactive substances. Proper maintenance of oral hygiene is essential for the oral health of heroin addicts.

Material and method - The participation of the respondents in this research included an experimental and a control group. The experimental group consisted of 50 heroin addicts under the age of 30, treated at the Special Hospital for Addiction Diseases in Belgrade. The control group consisted of 50 patients, treated at the Faculty of Dentistry, the University of Belgrade and the Health Center "Zemun". To measure the effectiveness of oral hygiene, the data obtained on the basis of the Simplified Oral Hygiene Index (OHI - S) on the Green - Vermilion scale were analyzed. Also, each patient received a score of 1 to 3 for maintaining oral hygiene.

Results - The index of oral hygiene in patients of the experimental group is 0.98, while in the control group it is 0.1. Grades for maintaining hygiene were, 14% patients who use heroin maintain good oral hygiene well, 46% examinees poorly and 40% moderately. Patients from control group maintained good hygiene in 62% cases.

Conclusion - This research shows that the oral hygiene of heroin addicts is poor and therefore an increased risk factor for developing oral diseases. To prevent the occurrence of oral diseases, it's necessary to implement adequate preventive measures and include the patient and family, dentists and neuro-psychiatrists.

PP – 37**INFLUENCE OF PROSTHETIC THERAPY ON ESTHETICS AND ORAL HEALTH-RELATED QUALITY OF LIFE**

Sanela Strujić-Porović, Muhamed Ajanović, Amela Donlagić, Alma Kamber-Česir, Selma Alić-Drina

Faculty of Dentistry with Clinics, Department of Prosthodontics;

Improving the quality of life dependent on oral health (OHRQoL) and orofacial esthetics plays an important role in prosthetic therapy. Purpose: To examine the impact of different prosthetic therapies on the assessment of orofacial esthetics and oral health-related quality of life. Methods and materials: The study included subjects who were divided into three groups according to the type of prosthetic therapy, 30 subjects with complete dentures, 29 subjects with partial dentures and 30 subjects with fixed prosthetic restorations. All respondents completed the OHIP 14 and the OES orofacial aesthetic scale questionnaires. Respondents rated their oral health with the OHIP 14 questionnaire by answering questions that were ranked on a scale of 0-4. A higher score indicates a lower OHRQoL. The OES questionnaire rated orofacial esthetics on a scale of 1-5. A higher number of points indicates greater satisfaction with aesthetics. Results: There was no significant difference between the examined groups in OHRQoL for the total score of OHIP, the total score in subgroups and the assessment of orofacial esthetics ($p > 0.05$). ANOVA showed that men with complete dentures significantly felt a higher level of physical pain ($p < 0.037$) compared to the other two groups. Female subjects showed a higher level of social disability compared to men ($p < 0.019$). There was a significant difference between the gender in item OES-5 ($p < 0.006$), and on the total score OES scale ($p < 0.034$). Conclusion: Different types of prosthetic therapy had no impact on OHRQoL and orofacial esthetics.

PP – 38

ZIRCONIA IN EVERYDAY CLINICAL PRACTICE

Marija Simoncheska¹, Dominika Slavkovska¹, Aneta Mijoska¹, Vesna Jurukovska Shotarovska², Sasho Jovanovski²

¹*Faculty of Dental Medicine, University Ss. Cyril and Methodius, Skopje, Macedonia;* ²*Faculty of Medicine, University of Ljubljana;*

Introduction. Modern aesthetic dentistry in the last 20 years has affirmed importance of zirconium oxide ceramics as one of the leading materials for achieving high aesthetic results.

Purpose. This study investigated metal-ceramic and metal free prosthetic restorations in everyday clinical dental practice as well as the possibility of certain weaknesses.

Material and method. The clinical trial included prosthetic restorations of patients divided into four groups depending on the material (metal and metal-free ceramics). The first, second, and third groups respectively were metal-ceramic, glass-ceramics, and Y-TZP oxide ceramic faceted with feldspathic ceramic, and the fourth group was Full-Contour Zirconia without feldspathic porcelain.

Results. This clinical research was providing knowledge about the qualitative advantages of zirconia as one of the modern leading metal-free materials in dental medicine. Emphasis is placed on hardness, biocompatibility, chemical stability, and high aesthetics.

Conclusion: From the analysis of the study it can be concluded that in all groups a high quality of anatomic-morphological, functional and aesthetic restoration has been achieved. In a smaller number of patients in the Feldspathic groups, ceramic veneer fractures occurred with a negligible difference between the groups.

PP – 39**NEW ZIRCONIA POST AS A AESTHETIC OPTION FOR RESTORATION OF CERAMIC CROWNS**

Dominika Slavkovska¹, Dejan Todorovski¹, Marija Simoncheska¹, Aneta Mijoska², Sasho Jovanovski²

¹Faculty of Dental Medicine, University Ss. Cyril and Methodius, Skopje, Macedonia; ²Faculty of Medicine, University of Ljubljana;

Statement of problem. Due to their excellent aesthetic and mechanical properties, Y-TZP posts are widely used in modern dental medicine for the restoration of endodontically treated teeth (ETT).

Purpose. This clinical report was investigated the aesthetics, biocompatibility, hardness and durability of newly designed Y-TZP posts on the behavior of ETT.

Material and methods. In this clinical research were included patients with ETT prepared with a new ferrule preparation design. Two different diameters (1.4mm and 1.6mm) of zirconia posts with cylindrical-conical shape in the radicular part and three retentive coronal rings in the coronary part were used and upgraded with different core materials.

Results. This clinical research was providing knowledge about aesthetics and the contribution of new internal preparation design around the root canal to additional improvement to fracture strength of ETT restored with new zirconia post-core design.

Conclusion. The study confirmed the benefits of the Y-TZP post as currently the best option for restoring ETT. Ferrule preparation of the dentinal ring is the first major factor that contributes to increasing the fracture resistance of all restored ETT with zirconia posts. 2mm apically extended inner and outer ferrule preparation for post and crown lengthening additionally increase fracture strength of teeth restored with zirconia post. Therefore, zirconia post with retentive coronal rings provides physiological stress distribution through the dentin walls and obtains a high percentage of repairable failures.

PP – 40**HYPOHIDROTIC ECTODERMAL DYSPLASIA: PROSTHODONTIC TREATMENT OF THREE BROTHERS**

Emilija Bajraktarova Valjakova, Aneta Mijoska, Blagoja Dashtevski, Natasha Stavreva, Cvetanka Bajraktarova Misevska

Faculty of Dentistry, “Ss Cyril and Methodius” University in Skopje, University Dental Clinical Center “St. Panthelejmon”

Background: Hypohidrotic Ectodermal Dysplasia is characterized by developmental disturbances of tissues and structures derived from the embryonic ectodermal layer, where sweat glands are significantly reduced in their number and function. A triad of symptoms, hypohidrosis, hypotrichosis and hypodontia or anodontia, is present in affected persons, consequently followed by underdeveloped alveolar ridges, improper maxillo-mandibular relations and improper function of the oro-facial system.

Case report: Three brothers (20-, 10- and 8 years of age) were diagnosed with X-linked recessive inherited HED. All of them had typical facial appearance (square forehead, prominent supraorbital ridges, wrinkled and pigmented eyelids, depressed nasal bridge, prominent lips, pointed chin) including atrophic alveolar ridges, severe hypodontia/anodontia and low maxillo-mandibular height. The oldest brother had edentulous maxilla with hyperplasia of the palatal mucosa as a result of the permanent wearing of the previously made complete upper denture, and permanent second molars in the mandible. Ten years old brother had both maxillary permanent central incisors and permanent canine in the right mandible. The youngest brother had only left central incisor in the maxilla and mandibular anodontia. Existing central incisors and canine had conical shape. According to the patients' age, clinical findings and socio-economic status, acrylic complete prosthesis, complete overdenture, or denture with metal clasps were made.

Conclusion: Prosthodontic treatment performed with removable acrylic dentures normalized functions of the dento-facial system, improved patients' facial appearance, emotional condition and social life.

PP – 41**CALCULATION OF PULP CHAMBER VOLUMES ON CBCT IMAGE USING ITK SNAP SOFTWARE**

Meris Jušić¹, Selma Jakupović², Adnan Šehić², Fuad Julardžija², Amela Sofić²

¹University of Bihać, Faculty of Health Studies; ²University of Sarajevo, Faculty of Dental Medicine

Background:

Accuracy of ITK SNAP software in three dimensional measurements of pulp chamber volume using cone beam CT images

Materials and methods:

CBCT images were converted into the DICOM format and saved in the semi-automatic segmentation software ITK SNAP. The segmentation process was performed using automatic segmentation process called seed region growing where seed is sets up inside the structure to analyze and this seed grows and display 3D form of segmented structure, in this case the pulp chamber.

Results:

The segmented structure is shown in 3D form where the volume of that structure in mm³ is automatically calculated.

Conclusion:

Changes in the pulp cavity with increasing age have proven valuable for estimating age, so ITK-SNAP is a reliable and free software for calculating pulp chamber volume in a quick and easy way.

PP – 42**EFFECTS OF FIBEROTOMY APPLICATION ON TREATMENT DURING ORTHODONTIC TREATMENT**

Ahmet Yagci, Taner Ozturk, Murat Eruz

ERCIYES UNIVERSITY

Aim: The aim of this study is to examine the effects of circumferential fiberotomy (CSF) applied at the beginning of orthodontic treatment on the process of orthodontic treatment.

Material and Methods: The study included 36 patients who were treated at the Erciyes University Department of Orthodontics between 2013 and 2016. Patients with minimal crowding were randomly and equally divided into two groups. In the first appointment of the treatment, in the first session of the treatment, after local anesthesia, CSF was applied to the maxilla and mandibular dentition using a scalpel, and then brackets were applied. The second group received conventional orthodontic treatment. Treatment duration in days and years, number of appointments, total appointment duration, average appointment duration, and pain conditions at the end of the 4th hour, 24th hour, 3rd day, 7th day and 1st month were determined and evaluated by visual analogue scale.

Results: There was no significant difference between the two groups in terms of total treatment time in days and years, and in chair-time in one appointment ($p>0.05$). Total number of appointments and total appointment duration were significantly reduced in individuals treated with CSF and conventionally treated ($p<0.05$). There was no significant difference in the time periods of pain analysis in both groups ($p<0.05$).

Conclusion: It was observed that CSF applied during orthodontic treatment did not cause pain. While this practice does not change the total treatment time, it can reduce the total number of appointments and the total time spent at the patient's chair-time.

PP – 43**COMBINED TREATMENT OF THE PATIENT WITH SEVERE SKELETAL CLASS III- CASE REPORT**

Jovan Markovic, Nemanja Marinkovic, Ivan Arsic, Nenad Nedeljkovic, Zorana Stamenkovic

Department of Orthodontics, School of Dentistry, University of Belgrade, Serbia

Introduction:

Severe skeletal Class III requires a multidisciplinary approach. Patients usually complain about impaired facial aesthetics and have problems with dental malocclusions.

Aim: This case report aims to present the result of combined orthodontic and orthognathic surgical treatment.

Method: The patient, 23 years old man, was diagnosed with skeletal class III malocclusion. Measures on initial lateral cephalogram were: SNA:77 °; SNB: 84 °; ANB: -7 °; Bjork's sum 409 °; Jarabak's ration 54%; Maxilare corpus +7,5mm; Mandibular corpus +10.75mm. The patient was treated at the Clinic of Orthodontics and Maxillofacial Surgery. Treatment involved fixed orthodontic appliance on both jaws, bimaxillary surgery, and retention period.

Results: The final lateral cephalogram showed: SNA:82 °; SNB: 80°; ANB: 2°; Bjork's sum 404 °; Jarabak's ration 63%; Maxilare corpus +9,5mm; Mandibular corpus -4.25mm. After treatment patient had stable occlusion in all three planes. The vertical dimensions of all three profile parts are of equal and proportional proportions.

Conclusion: Combined orthodontic and orthognathic surgical therapy established normocclusion and I skeletal class. The lower third of the face is reduced, and the chin and lower lip are set back to the correct position, which improves the aesthetic appearance of the face.

PP – 44**ATYPICAL PLASMA CELLS IN PERIAPICAL INFLAMMATORY LESION: AN UNUSUAL CASE REPORT**

Naida Hadžiabdić¹, Ajla Selimović¹, Edina Lazović²

¹Faculty of Dental Medicine With Clinics, University of Sarajevo, Department of Oral Surgery, Bolnička 4a 71 000 Sarajevo, Bosnia And Herzegovina;

²Department of Pathology, Faculty of Medicine, University of Sarajevo, Bosnia And Herzegovina

The periapical inflammatory lesion is a chronic pathological condition localized in the area of the root apex. It most often occurs due to infection and necrosis of the pulp of the affected tooth. Most of the time is asymptomatic and can persist for a long time until symptoms arise. Although the radiographic findings indicate the existence of a pathological process, they are not considered sufficient criteria for establishing the diagnosis of periapical inflammatory lesions. The histopathological analysis is necessary to confirm a definitive diagnosis.

The predominance of plasma cells in biopsies of periapical lesions can sometimes be confusing for pathologists and clinicians assuming malignancy instead of benign odontogenic cysts.

This case report describes an interesting example of a sizeable residual cyst involving the upper jaw and maxillary sinus. Because of the predominance of the plasma cells, oral pathologists suspected plasmacytoma- a malignant neoplasm. Immunohistochemical analysis was performed to exclude or confirm malignancy. This case shows that the presence of a large number of plasma cells and atypical plasma cells does not necessarily refer to the existence of a malignant neoplasm.

PP – 45**REHABILITATION OF MAXILLARY ANTERIOR DEFECT WITH IMPLANT SUPPORTED ZIRCONIA TORONTO BRIDGE: CASE REPORT**

Hasan Can Boran, Ersan Çeliik

Ordu University Faculty Of Dentistry

Purpose: In this case report, the rehabilitation of patient with missed tooth and tissue loss, as a result of traffic accident, with an implant-supported zirconia Toronto Bridge is described.

Case Description: A 42 years-old male patient visited department of prosthodontics for prosthetic rehabilitation of missed teeth in the upper jaw. He was a non-smoker, and his medical history was without significant findings. He missed his teeth as a result of traffic accident. In the clinical and radiographic examinations; there were missed teeth and bone loss in sites between #15-#23. Implant supported fixed prosthesis was planned considering the patient's expectations. Four bone level implant (4,1Ø, 10mm, Nucleoss T6 Standart) were placed in sites 15,13,11,23. After two mounts, the second surgery was performed and multiunit abutments placed. After two weeks, impressions were taken using the intraoral scanner (Trios3, 3Shape). The restorations were designed as 'toronto bridge' by using the CAD software (CeramillMind, Amanngirrbach) and subsequently monolithic zirconia milled (Ceramill Zolid Ht Preshade, Amanngirrbach) in CAM unit (CeramillMotion2, Amanngirrbach). The zirconia ceramic restorations were sintered according to the manufacturer's instructions. Then, restorations were characterized with surface stains. The zirconia restorations and ti-base abutments were adhesively luted with dual polymerizing composite cement (RelyxU200,3M). The occlusal screws of the ti-base abutments were tightened with a defined torque (20Ncm) and the screw access hole was closed with cotton and flowable composite. At the end crown restorations cemented with polycarboxilate cement.

Conclusion: No complications were observed in the restorations and surrounding soft tissues in the 6 months follow up.

PP – 46**DENTAL IMPLANTATION AND PROSTHETIC REHABILITATION AFTER HORIZONTAL BONE AUGMENTATION IN THE AESTHETIC REGION: CASE REPORT**

Sena Balkiz, Figen Öngöz Dede, Doğu Ömür Dede, Ayşe Koçak

Ordu University Faculty Of Dentistry

Purpose: This case report aims prosthetic applications following implant application after augmentation of the horizontal bone defect resulting from tooth lost in the aesthetic region.

Case Description: Non-surgical periodontal treatment of a 21-year-old female patient was completed. The mucoperiosteal flap was elevated to the alveolar ridge between teeth 12-21. The block graft obtained from the lower anterior symphysis region was fixed by screwing to the horizontal defect. Autogenous and bovine xenogeneic particle grafts were mixed and applied around the block graft. After the surface was covered with a collagen membrane and fixed, the flap was sutured and the augmentation process was completed. 6 months after, the mucoperiosteal flap was elevated again in the relevant area. Following suitable drilling protocol, an implant with a diameter of 4.1 mm and a length of 13 mm was placed. The healing cap was attached and the flap was sutured. Temporary restoration was performed 48 hours after implant placement. After 3 months, ti-base monolithic zirconia was rehabilitated with definitive prosthesis.

Conclusion: Directed bone regeneration of horizontal bone defects in the aesthetic region, using autogenous block graft provides the desired aesthetic and functional criteria in anterior region implantation.

PP – 47**ORAL HEALTH ANALYSIS OF A SIX-YEAR-OLD CHILDREN IN THE AREA OF ŽIVINICE TOWN****Belkisa Hodžić****INTRODUCTION:**

Oral health is an important segment of the general health condition and it greatly affects the quality of life and functioning of the individual. Caries is the most common oral disease that affects not only adults, but also the children.

The aim of this study is to analyze data on the state of six -year - old children's oral health in the area of Živinice town and to compare the data with WHO recommendations.

METHODOLOGY:

The research included 474 six -year -old children in the area of Živinice town in the year 2021, who came for dental examinations at the Public Health Institution "Health Center" Živinice. The parameters used to assess the state of oral health were the indices of the average number of carious, extracted and teeth treated with fillings because of the caries (DMFT index). Statistical data processing was done in Microsoft Office Excel.

RESULTS:

The study, which included 474 six - year- old - children, included 236 boys and 238 girls by gender. DMFT index of six-year-old children from the area of Živinice town, in 2021, is: 7.7.

CONCLUSION:

Based on the obtained research results, insight into statistical data and their analysis, it was concluded that the DMFT index of six-year-olds in Živinice town is high when compared to the recommendations of the World Health Organization. Based on the comparison of the above data with the recommendations for the kep index by the World Health Organization, it can be concluded that the oral health of six-year-olds in the area of Živinice town is not satisfactory, and that it does not meet the EU standard.

PP – 48**FRACTURE SURFACE ANALYSIS OF MTWO INSTRUMENTS**

Milica Jovanović-Medojević, Marijana Popović Bajić, Jelena Nešković, Violeta Petrović, Slavoljub Živković

University of Belgrade, School of Dental Medicine, Department of Restorative Odontology and Endodontics, Belgrade, Serbia

Background: Torsional stress and cyclic fatigue are the main factors in causing fractures of NiTi instruments during instrumentation of root canals. The aim of this research was to analyze the fracture surface parts of Mtwo instruments after preparation of extremely curved canals.

Methods and materials: The study included two sets of Mtwo instruments (VDW, Munich, Germany), used to instrument ten extremely curved canals or until the moments of their fracture. Morphological and chemical analysis of fractured parts instruments was performed on Scanning electron microscopy (SEM) type JEOL JSM-6610LV, Japan, under 1500× and 2000× magnifications. Determination of chemical composition was performed using EDS detectors (type X-Max Large Area Analytical Silicon Drifted spectrometer, Oxford Instruments) and using internal standards. The obtained chemical compositions are presented as contents of chemical elements in weight percent (wt%) normalized to 100%. The detection limit for most elements is about 0.1 wt%.

Results: After instrumentation, two complete fractures were observed: instrument 10/.04 after nine uses and instrument 15/.05 after eight uses. The SE images of the cross section of the refracted instruments (10.04) clearly show central zones with microscopic holes that display torsional changes and traces of circular abrasion on the outer parts of the fractured surface. Fractographic analysis of the fractured instrument (# 15.05) shows the presence of multiple sources of fracture, ie the direction of fracture.

Conclusion: The results of this study confirm torsional stress as the most common cause of fracture of MTwo instruments.

Keywords: Mtwo; fracture surface; SEM-EDS

PP – 49**KEP INDEX ASSESSMENT AMONG PATIENTS REFERRED TO ORTHODONTIC EXAMINATION**

Redzepagic-Vrazalica Lejla¹, Jeleskovic Azra¹, Musanovic Alma², Zahirovic Ismar³, Dujacic Tarik⁴

¹Faculty of Dentistry with Clinics, Department of Orthodontics; ²Faculty of Dentistry with Clinics, Department of Oral Medicine; ³Private Clinic Confident ⁴Private clinic "dr Dzana Kasumagic"

Background: Dental caries is one of the most common diseases among children around the world. If not treated in time, it can cause various problems, such as eating, speech, and social problems. The prevalence of caries in early childhood was recorded in almost 30-60% of preschool children globally. The presence of caries in patients referred for orthodontic examination prolongs the beginning of orthodontic therapy and can be the cause of orthodontic

irregularities. Before any active orthodontic therapy, it is essential that the patient maintains satisfactory oral hygiene and has cured all carious lesions on both deciduous and permanent teeth.

THE OBJECTIVE OF THE RESEARCH was to determine the KEP index in children and adolescents referred for the first orthodontic examination.

Methods and materials: The research was conducted at the Faculty of Dentistry with clinics of the University of Sarajevo, at the Department and the Clinic of Orthodontics. The study included all patients referred for the first orthodontic examination within two months. The examination was performed according to the recommendations of the World Health Organization, and the

KEP index was evaluated. The diagnosis of caries was also made according to the recommendations of the World Health Organization.

Results: The results will be published after the

PP – 50**IMPACTED INVERTED MESIODENS-CASE REPORT**

Jelena Elez, Nikola Stojanović, Jelena Krunić, Tanja Ivanović, Slavoljub Tomić

Faculty of Medicine Foča

Introduction/Aim: A supernumerary tooth is a development anomaly of number characterized by the presence of a tooth in addition to the normal series. Most common supernumerary tooth is mesiodens with a prevalence of 0.15- 1.9%. Mesiodens usually have a conical crown and one root and are mostly localized palatally between the maxillary incisors. The aim of this report is to present an asymptomatic inverted mesiodens located near the nasal cavity, which is indicated for extraction within orthodontic-surgical treatment in order to provide conditions for the establishment of normal occlusion and aesthetics.

Case report: A 14 -year-old boy, accompanied by his parents, reported to the Clinic of Othodontics of the Specialist Center in Foča to plan orthodontic treatment. Detailed clinical examination and CBCT evaluation revealed the presence of an impacted conical-shaped inverted mesiodens palatally placed between the central incisors with the crown in close contact with the floor of the nasal cavity. As part of the orthodontic treatment plan, mesiodens is indicated for surgical extraction. Mesiodens is extracted by palatal approach with great care due to the proximity of the floor of the nasal cavity and central incisors.

Conclusion: The presence of a supernumerary tooth can be the cause of many complex orthodontic disorders and often requires a combination of surgical and orthodontic treatment. Therefore, early detection and timely intervention and inter-disciplinary collaboration is the essential for ensuring best outcome and treatment in a patient.

Key words: supernumerary tooth,mesiodens,orthodontic- surgical treatment

PP – 51**ROOT CANAL RETREATMENT OF MANDIBULAR WISDOM TOOTH WITH PULP STONE****Bojan Dželetović, Neda Ninković, Katarina Radović***School of Dental Medicine, University of Belgrade*

Background: Calcifications in dental pulp, like dental stones, can change the internal tooth anatomy and create difficulties during cleaning and shaping of the root canal system.

Goal: To present a case of endodontic retreatment of mandibular third molar with inadequate obturation and missed pulp stone.

Case report: A female patient was referred to our department for endodontic retreatment of mandibular right third molar. Intraoral examination revealed recontoured tooth 48 after removal of the bridge construction without sensitivity on percussion and palpation. Panoramic radiograph revealed that only two root canals were treated inadequately but without evidence of periapical radiolucency. After access cavity preparation it was concluded that missed pulp stone was present in pulp chamber. Pulp stone was easily removed and root canal retreatment was completed in second visit, after intracanal medication phase.

Discussion: Depending on location, pulp stones can interfere with root canal treatment. In the present case, pulp stone the most probably blocked access to canal orifices and led to missing of the third root canal. This showed clinical significance of the retrieval of pulp stones which is critical for successful endodontic treatment.

Conclusion: Knowledge of root canal anatomy variations and careful clinical and radiographic examination of the pulp chamber are crucially important in endodontic treatment success.

PP – 52

ASSOCIATION OF HPV TYPES OF GENITAL LESIONS AND ORAL LESIONS

Mirjana Popovska¹, Lindita Zendeli Bedjeti², Vera Radojkova Nikolovska¹, Spiro Spasovski³, Spasovska Gjorgovska Ana⁴

¹Faculty for Dentistry, University St.Cyril and Methodius, Skopje N.Macedonia;

²University Dental Clinical Center “St. Pantelejmon” 1000 Skopje, Republic of N. Macedonia ³PHI „Dr. Spasovski” ⁴H.I. Student polyclinic on University “Ss.Cyril and Methodius” 1000 Skopje, N. Macedonia

Aim. Investigate the association of HPV types and genital lesions and oral lesions.

Material and method. A PVU swab was taken from 200 patients, processed for HPV typing, by the Papanicolaou method at the Clinic for Gynecology and Obstetrics, Medical Faculty in Skopje. At the Clinic for Oral and Periodontal Diseases, USKC, Skopje, oral findings were registered, an oral swab was taken and processed according to the same technique.

Results. In 200 patients with genital lesion, Zin2 dysplasia was proven in 118(59%), Zin1 in 44(22%) and Zin3 in 38(19%). In patients with Zin1 the most common are HPV18/7(3.3%) and HPV16/7(3.3%). HPV16 is present in 25(12.50%) with Zin2 and 12(6%) with Zin3. For Fisher, there is no significant difference between s Exact Test 41.79 and $p > 0.05$ ($p = 0.377/0.364-0.389$). Oral mucosa was diagnosed in 31(15.5%) oral Lichen planus(OLP), in 4 (2%), hyperkeratosis(HK), in 4(2%) leukoplakia(LK), 39(19, 5%), stomatitis(ST), 31(15.5%), glossitis(GS), and in 1(0.5%) patient erythroplakia(EP). No oral changes were reported in 90 patients. HPV56 was registered in 4(2%) patients with OLP. Out of 6(3%), 3 patients with HPV16(1.5%) had LP, 2(1%) LK, 1(0.5%) EP. Two (1%) patients with HPV18 had LK. HPV31 was registered in 1(0.5%) with ST.

There is a significant difference in the shown distribution of HPV with oral lesions for Fisher, Exact Test=76.26 and $p < 0.001$ ($p = 0.000/0.000-0.000$).

Conclusion. There is no connection between detected HPV16 in genital lesions with Zin 1,2 and 3 and oral changes(LP,LK and EP).

Key words: HPV, leukoplakia, erythroplakia, lichen planus, hyperkeratosis

PP – 53

ENDODONTIC MANAGEMENT OF MANDIBULAR PREMOLARS WITH TWO ROOT CANALS**Bojan Dželetović¹, Manojlo Janković², Ivana Milanović¹**

¹Department of Restorative Dentistry and Endodontics, School of Dental Medicine, University of Belgrade; ²Dental Clinic dr Manojlo Janković, Pale, Republic of Srpska, Bosnia and Hercegovina;

Background: Endodontic treatment of root canal systems with morphological variations is a challenging task. Diagnosis and management of extra root canals is undoubtedly of utmost importance for successful treatment.

Goal: To report two clinical cases of endodontic treatment of mandibular premolar with two root canals.

Cases report: Two patients reported to our department for restoration of mandibular premolar teeth. Patients had a history of mild pain on intake of cold beverages but without percussion and palpation sensitivity. Clinical examinations showed large carious lesions with wide pulp exposures. Periapical radiographs indicated complex morphology with possibility of additional canals. Endodontic treatments were planned and subsequent tactile exploration of pulpal chamber walls and floor revealed extra canals. Careful preparation, disinfection and three-dimensional obturation of the entire root canal system were then completed in accordance with widely validated protocols. Control examination showed that the treated teeth were asymptomatic and with no signs of pathology.

Discussion: Unexplored and untreated root canals could be a source of infection and major cause of treatment failure. A detailed knowledge of morphology and skills of canal thorough cleaning and shaping are required for successful management of complex cases.

Conclusion: Understanding of root canal anatomy variations contributes toward achieving success and increases overall success of endodontic treatment. Mandibular premolar teeth can have complex root canal morphology and require careful assessment.

PP – 54**DIRECT PULP CAPPING IN MANDIBULAR MOLAR IN PATIENT WITH HEMOPHILIA AND HEPATITIS C VIRUS****Bojan Dželetović, Ivana Milanović, Maja Ležaja Zebić***School of Dental Medicine, University of Belgrade*

Background: Hemophilia as a bleeding disorder and hepatitis C virus infection require specific consideration in the context of dental treatment.

Goal: To report a clinical case of direct pulp capping procedure using calcium silicate-based cement in patient with severe hemophilia A and hepatitis C virus infection.

Case report: A 43-year-old male with severe hemophilia A and hepatitis C virus infection reported for comprehensive dental care. The patient was prepared by hematologist with administration of factor VIII and tranexamic acid. Examination showed deep carious lesion involving the left mandibular second molar with no history of pain, no tenderness on percussion and electric testing response similar to control tooth. During caries removal there was pulp exposure. Biodentin was applied to the exposed site and surrounding dentine, allowed to set and definitive composite restoration was placed. After six months, treated tooth had positive responses to electric testing and absence of any periapical pathology.

Discussion: Because of systemic and local issues of hemophilia and hepatitis C infection and their interactions, cooperation with hematologist was necessary. Biodentine was chosen due to reduced setting time, easier handling and dentin-like mechanical properties.

Conclusion: From this case it was concluded that, even in a hemophilic patient with hepatitis C infection, with adequate treatment plan, vital pulp therapy procedures can be successful.

PP – 55**REMOVAL OF SEPARATED ENDODONTIC INSTRUMENT WITH THE AID OF HAND FILE****Bojan Dželetović, Jelena Vučetić, Svetlana Antić***School of Dental Medicine, University of Belgrade*

Background: The separation of an instrument is one of the accidents that might occur during endodontic treatment and reduce the effectiveness of cleaning and shaping of root canal.

Goal: To report a clinical case of complicated separated instrument removal with the aid of hand endodontic file.

Case report: A male patient was referred to our department for the removal of endodontic file fractured in the mandibular premolar. Radiographic examination showed separated file segment in the middle portion of the root canal. Straight-line access to the fragment was obtained and bypassing was done in between dentinal wall and broken instrument. After bypassing, partial instrumentation of the canal was performed. Retrieval was tried by manipulating the manual Hedström instrument in all directions but the fragment was displaced in the root apex. The separated file was finally removed by capturing with Hedström instrument and its repetitive coronal traction motion. Endodontic treatment was completed in two visits, after medication phase.

Discussion: Many different devices and techniques developed for removal of fractured instruments have been described in the endodontic literature. These methods could be difficult and have destructive effect on the root dentin.

Conclusion: Good experience with simple armamentarium enables successful management of some cases of separated instruments. The removal with the aid of hand endodontic file might be a conservative, simple and low-cost method for separated instrument removal.

PP – 56**ENDODONTIC TREATMENT OF THIRD MAXILLARY MOLAR WITH FOUR CANALS****Bojan Dželetović, Ivica Todorović, Svetlana Antić***School of Dental Medicine, University of Belgrade*

Background: The endodontic treatment of maxillary third molar is challenging procedures for clinicians because of aberrant root canal anatomy and the most posterior location in the dental arch. Maxillary third molar can have highly complex root canal morphology and requires careful assessment.

Goal: Our goal was to report successful endodontic treatment of third maxillary molar with four canals.

Case report: A 48-year-old female was referred to our department for endodontic treatment of third maxillary molar. Chief complaint was intermittent spontaneous pain in the upper right third molar region. Clinical examination revealed class II filling on right maxillary molar without palpation and percussion sensitivity. Panoramic radiograph did not provide definitive conclusion about internal morphology of pulp chamber. After access cavity preparation pulp chamber was tactile explored and four canal orifices located. The canals were instrumented using reciprocating file system and treatment completed in one visit. Later on, CBCT that was done in order to evaluate possibility for endodontic retreatment of right upper premolar and molar teeth also revealed actual three dimensional canal morphology.

Discussion: The conventional radiograph did not reveal variations in root canal anatomy, but visual and tactile examination of pulpal chamber floor and walls with small endodontic file suggested the presence of four root canals. CBCT precisely revealed and confirmed complex root canal anatomy.

Conclusion: Careful radiographs inspection and clinical examination of the pulp chamber, as well as knowledge of root canal anatomy variations should help the clinician to locate all canals and increase the success rate of endodontic treatment.

PP – 57**ENDODONTIC TREATMENT OF MAXILLARY CANINE WITH LATERAL PERIODONTITIS****Bojan Dželetović, Lidija Praščević, Maja Ležaja Zebić***School of Dental Medicine, University of Belgrade*

Background: Lateral canals are ramifications connecting the main root canal system with the periodontal ligament. These main canal branches are possible pathways for bacteria, or their products causing lateral lesions, and additionally conceivably difficult to reach and clean during endodontic treatment.

Goal: This report describes successful endodontic treatment of right maxillary canine with lateral periodontitis.

Case report: A 58-year-old female patient reported to our clinic for mild pain during biting on her right upper side. Intraoral examination revealed old filling on distal and palatal side of right maxillary canine that was sensitive to percussion. Periapical radiograph showed inadequate endodontic filling and lateral lesion on mesial side of the root of right maxillary canine. Following access cavity preparation, old endodontic filling was removed, working length determined and chemo-mechanical preparation done. After two weeks of calcium hydroxide medication, root canal was obturated. Follow-up radiograph, taken after thirteen-months, showed the lateral lesion healing.

Discussion: Lateral canals usually are not visible on the radiographs and its presence is suspected only when there is lateral lesion on a root surface. However, it was proposed in literature that these lesions are not always associated with infected necrotic tissue in lateral canals itself and that healing is possible after removal of infection just from the main canal.

Conclusion: Healing of lateral lesion in the presented case suggests that in some clinical situations favorable treatment outcome is possible after standard endodontic therapy, even without direct reaching and filling of the lateral canal.

PP – 58**NON-SURGICAL RETREATMENT OF MANDIBULAR SECOND PREMOLAR AFTER METAL POST AND CROWN REMOVAL**

Bojan Dželetović, Ankica Miljković, Svetlana Antić

School of Dental Medicine, University of Belgrade

Background: The most frequent cause of periapical lesions is the infiltration of root canal system by microorganisms and/or their by-products and consequent maintenance of apical inflammatory process. Microleakage from previous restorations with satisfactory clinical performance and esthetics may deteriorate the quality of root canal filling and lead to endodontic therapy failure and infection.

Goal: Our report describes successful endodontic retreatment of mandibular second premolar with periapical lesion after metal post and crown removal.

Case report: A 45-year-old male reported to our department for dental examination. Panoramic radiograph revealed periapical lesion originating from right mandibular second premolar restored with metal post and prosthetic crown. We planned endodontic retreatment and after prosthetic crown sectioning cast post was retrieved by means of an ultrasonic tip. We removed previous gutta-percha filling and established working length. After chemo-mechanical preparation, calcium hydroxide paste was applied and a week later root canal was obturated. The tooth was restored with fiber post and metal ceramic crown. Control radiograph three years later showed periapical healing.

Discussion: Treatment options for teeth with periapical lesions previously restored with posts and crowns include endodontic retreatment and surgical intervention. Conservative approach minimizes patient discomfort, loss of the remaining tooth structure and potential postoperative complications.

Conclusion: Having in mind that the elimination of microorganisms from the endodontic space is the most important factor for the periapical lesions healing, non-surgical root canal treatment should always be the first choice for treatment of teeth with infected root canal system.

PP – 59**ENDODONTIC RETREATMENT OF MANDIBULAR FIRST MOLAR WITH PERIAPICAL LESION AFTER CAST POST RETRIEVAL**

Bojan Dželetović, Danilo Pavlović, Maja Ležaja Zebić

School of Dental Medicine, University of Belgrade

Background: Complete chemical-mechanical preparation is directly related to the quality of root canal system filling. Anatomical irregularities such as isthmuses and ramifications could be difficult to clean and seal three-dimensionally. In some situations, primary therapy can be unsuccessful and endodontic retreatment indicated to make affected tissues functional and allow its complete repair.

Goal: Our goal was to report successful non-surgical retreatment of a mandibular first molar after cast post and crown removal.

Case report: A 38-year-old female reported to our department for comprehensive dental examination. Panoramic radiograph revealed incidental finding of poor endodontic treatment of left mandibular first molar with cast post and core. Clinical examination showed metal ceramic crown on mentioned tooth and no percussion/palpation sensitivity. Endodontic retreatment was planned and after prosthetic crown cutting cast post was retrieved using an ultrasonic tip. Previous gutta-percha filling was removed, working length established and instrumentation done using reciprocating file system. Calcium hydroxide paste was applied and a week later canal was obturated. The tooth was restored with glass ionomer core build-up and metal ceramic crown. After 18 months, control radiograph showed periapical lesion healing.

Discussion: A non-surgical endodontic retreatment should be adopted before surgery approach as it minimizes the loss of the remaining tooth structure and provides less stressful treatment for the patient.

Conclusion: Although cast posts removal and endodontic retreatment are unpredictable and challenging procedures for clinicians, they could be a management of choice as they are more comfortable procedures that cause less psychological trauma in comparison

PP – 60**DENTAL SEALANT-RETENTION ASSESSMENT IN IN PERMANENT MOLARS**

Jetmire Alimani Jakupi, Lindihana Emini, Amella Cana, Zana Jusufi

Faculty of Medical Sciences, SUT-Tetovo

Fissure sealant presents a very effective preventive method in the direction of pits and fissure protection of occlusal teeth surface by influence of cariogenic factors.

For this reason, we aimed our goal on following the efficacy of sealant materials like HeliOSEAL F, synergy Flow, Premis Flowable and GC Fuji triage, depending of the time period of sealant.

a group of 192 children in the subject were involved in the study age 6-8 years old, with erupted first permanent molars, where the occlusal morphology was suitable for sealing, namely deep and arrow fissures. Evaluation criteria were modified according to Cvar&Ryg A, B, following the sealant retention and presence of secondary caries.

Our results from the testing of the sealant which we checked in first control evaluating the retention of sealant for HeliOSEAL F with help of X test shows differences in the values between two groups A and B which are statistically significant ($p < 0.001$). For Synergy flow with X test differences between group A and B shows statistically high significance ($p < 0.001$). Differences in values in a Premise flowable with X test shows a highly statistical significance ($p < 0.001$). FOR seal GC Fuji triage also highly statistical significance were recorded between two groups ($p < 0.001$).

Keywords: first permanent molars ,dental sealant; retention;

PP – 61**REMOVAL OF SEPARATED ENDODONTIC INSTRUMENTS**

Bojan Dželetović, Julijana Jovanović, Maja Ležaja Zebić

Department of Restorative Dentistry and Endodontics, School of Dental Medicine, University of Belgrade

Background: Fracture of endodontic instrument in root canal interferes with the favorable outcome of treatment, because it hinders optimal cleaning and shaping of the root canal system.

Goal: To report two clinical cases of removal of endodontic instruments separated in root canals.

Case 1: A female patient was referred for the removal fractured endodontic file in maxillary premolar. Radiography showed file segment in middle portion of the canal. With the aid of hand endodontic file, the fragment was displaced and canal treatment was completed in two visits, after intracanal medication phase.

Case 2: A female patient was referred for the removal fractured endodontic file in maxillary molar. Radiography showed separated fragment in middle portion of the canal. An ultrasonic tip was used to loosen and successfully remove the fragment. It was concluded that the pulp in remaining portion of the canal was vital and endodontic treatment was completed.

Discussion: Although the removal of separated instrument should be performed with minimal root dentin damage it is not always possible to preserve the original canal shape. Removal with help of ultrasonic or hand endodontic file is relatively simple, conservative and low-cost method to solve endodontic complication of separated instrument.

Conclusion: Appropriate armamentarium and clinical experience enable effective separated instruments removal and subsequent successful root canal system preparation and obturation.

PP – 62**ORAL REHABILITATION OF A PEDIATRIC PATIENT WITH WAARDENBURG SYNDROME: A RARE CASE REPORT****Meltem Karahan, Banu Çiçek Tez, Basak Kiziltan Eliacik***University of Health Sciences, Hamidiye Faculty of Dental Medicine, Department of Pediatric Dentistry***BACKGROUND**

Waardenburg Syndrome (WS) is a hereditary disorder characterized by varying degrees of hearing loss and pigment anomalies affecting the eyes, hair and skin. The dental findings associated with this syndrome are agenesis, cleft lip/palate and dental malformations. Although there is sufficient medical literature on this syndrome, dental studies reporting clinical and radiographic findings are limited. This case report contributes to the literature by presenting the clinical and radiographic findings and oral rehabilitation of a 12-year-old boy patient with Waardenburg Syndrome.

CASE

We here report a case of 12 year old male who presented eruption of permanent teeth without exfoliation of his primary teeth, malocclusion and pain in the right lower jaw with a history of Waardenburg Syndrome. After an initial clinical examination, treatment was planned under general anesthesia with prophylactic antibiotic administration. 11, 12, 16, 21, 22, 26, 36, 46 were restored with composite resin while 65, 75, 85 were extracted. Parents were informed about the child's oral hygiene care. Since it is necessary to keep oral hygiene at an optimum level, it is recommended to use a water flosser because the patient has difficulty in using the toothbrush and was called for the periodic controls every six months.

CONCLUSION

Interdisciplinary collaboration of dentistry and other departments of medicine is important in patients with WS. The role of dentists in improving the quality of life by applying preventive treatments, providing oral hygiene motivation to parents and regulating nutritional habits is increasing.

PP – 63**REGENERATIVE ENDODONTIC TREATMENT APPROACH IN A PEDIATRIC PATIENT WITH REGIONAL ODONTODYSPLASIA: A CASE REPORT**

Banu Çiçek Tez, Meltem Karahan, Başak Kiziltan Eliaçık

University of Health Sciences, Hamidiye Faculty of Dental Medicine, Department of Pediatric Dentistry

BACKGROUND: Regional odontodysplasia is a rare developmental disorder characterised by hypoplasia and hypomineralisation of enamel and dentin. Wide pulp chambers, open apices and blurred demarcation in the dentino-enamel junction are the main radiological features distinctive of RO. The disorder involves both primary and permanent dentitions in the majority of the cases.

CASE: In this case report, radiographic and clinical treatment protocols of a male patient with this rare anomaly are presented. The patient first applied to our clinic at the age of 11. In the intraoral examination, RO symptoms were detected in the right lower jaw. It was observed that all primary and permanent teeth in this quadrant had large pulp chambers and the teeth had the appearance of ghost-teeth. A radiolucent lesion was detected in the periapical tissues of the right permanent mandibular first molar. The patient's parents have refused the treatment protocol.

3 years later the patient applied to the clinic with extraoral abscess in tooth number 46. After clinical and radiological examination the regenerative endodontic treatment was planned and performed. 3 months later in the clinical and radiographic examination, the improved prognosis in the periapical tissues was determined. Due to the detection of radiolucency in the periradicular region, the patient was referred to the periodontology department for the evaluation of periodontal tissue health.

CONCLUSION: This case report is important in terms of emphasizing that regional odontodysplasia is a disease that progresses rapidly, requiring long-term treatment protocols and follow-up, and informing pediatric dentists about this tissue.

PP – 64**RECONSTRUCTION OF PINK AND WHITE ESTHETICS IN MAXILLARY INCISORS WITH ZIRCONIA-CERAMIC RESTORATIONS**

Marjan Petkov, Ilijana Muratovska, Aneta Mijovska, Vesna Jurukovska, Blagoja Dastevski

University Ss. Cyril and Methodius, Faculty of Dental medicine Skopje, North Macedonia

Introduction: The use of high-strength ceramics, such as lithium disilicate and CAD/CAM zirconia suprastructures, are quickly becoming the main restorative choices for many dentist in anterior restorations.

Aim: Contemporary aesthetic reconstruction in maxillary incisors with Zirconia-Ceramic Restorations in a patient with a particular emphasis on pink and white aesthetics.

Material and method:

We made aesthetic reconstruction in 35 years old patient in maxillary incisors. The patient came with old ceramic bridges that no longer met the patient's aesthetic criteria. After removing the old bridges, we had rebilled prepared teeth, made periodontal treatment of severely inflamed gums. The patient wore a temporary bridge for 21 days so that we could shape the interdental papilla (which was suppressed by the old structure) to obtain a pink and white aesthetic. Then we made 4 crowns made of CAD / CAM zirconium - oxide ceramics layered with lithium disilicate which we cemented with conventional cement.

Conclusion

Excellent material physical properties, biocompatibility, corrosion resistance, appropriate translucency and excellent tissue response due to minimal plaque accumulation

and superior aesthetics make zirconia-ceramic a popular material among the contemporary all-ceramic materials. CAD-CAM technique can definitely satisfy critical aesthetic and functional needs of the patients.

Key words: pink and white esthetics ,CAD/CAM restorations, , zirconia crowns

PP – 65

USAGE OF BIOACTIVE CEMENT IN VITAL PULP CELL SIMULATION-REPORT OF TWO CASES

Elena Radeska¹, Elizabeta Gjorgievska¹, Jasna Simonovska¹, Bruno Nikolovski¹, Ana Radeska-Panovski²

¹*UDCC St. Pantelejmon Skopje*; ²*FMS Goce Delcev Shtip*

Introduction: Biodentine®, new bioactive cement (Septodont, St. Maur-pass-Fosses, France), was recently launched on the dental market as a dentin substitute. It is biocompatible and capable of inducing the apposition of reactionary dentin by stimulating the odontoblast activity and reparative dentin by induction of the cell differentiation. During the setting reaction of the cement, ions of calcium hydroxide are released. Biodentine® can be used in pulpotomy of teeth with incomplete root formation.

Aim of the study: to show the effect of Biodentine® in apexogenesis stimulation in immature permanent teeth

Material and method: the study reports two cases of pulpotomy treatment of immature permanent teeth: a 9-year-old patient with horizontal fracture on the enamel and dentin with pulp exposure on tooth #21; and an 8-year-old patient with deep carious lesion on the tooth #36.

Results: the postoperative X-rays and the clinical data of the two patients, shows that they aren't any side effects in the treatment with Biodentine®, but the most important is that the apexogenesis continue without any disruptions.

Conclusion: Biodentine® caused satisfactory response of the pulp in both cases where we made pulpotomy and direct pulp capping. According to these results, as well as the number of many studies, it can be concluded that the Biodentine® is one of the most powerful bioactive cements that can be used in many procedures, including pulpotomy and direct pulp capping.

Keywords: calcium-silicate cement, apexogenesis, immature permanent teeth, pulpotomy

PP – 66**MODERN ESTHETIC RESTORATIVE PROCEDURES FOR THE RESTORATION OF HARD TOOTH TISSUES**

Longurova Natasha, Toneva Stojmenova Verica, Zlatanovska Katerina, Kovacevska Ivona

Univerzity Goce Delchev, Faculty of medical science

The beautiful appearance is a part of the everyday life but the teeth along with the oral cavity are one of the first things that are visually noticeable so their esthetic affects the confidence of one individual. The contemporary way of life imposes needs of new and modern esthetic solutions. The oral health is an exclusively important factor which contributes to the overall look, it includes establishment of satisfactory function of the dentogenetic system as well as its esthetic. One of the main goals of the dental treatment I designing natural and esthetic smiles which satisfy the individuals and the specific needs of the patients.

The aim of this study was to establish modern esthetically restored procedures for the restoration of hard dental tissues, which are most used techniques in dental offices in North Macedonia, their demand by patients as well as the results from the same. For the realization of this thesis a questionnaire was prepared for the doctors and each of the respondents expressed their personal experience for the the new specific modalities of treatment that are increasingly present in the everyday dental practice: teeth whitening, lasers, laminates and microabrasion.

Patients are looking for aesthetic solutions to a minor problem or a complete aesthetic reconstruction of a smile that should be performed with minimal or without invasion of healthy tissues, or the whole process should be minimally invasive.

PP – 67**DENTAL CARE DURING SARS – COV-19 CRISIS**

Verica Toneva Stojmenova, Natasha Longurova, Katerina Zlatanovska, Ivona Kovacevska

University Goce Delcev Stip

Background: The dental care is important especially in pandemic period like SARS-CoV-19. Considering the high risk of SARS-CoV-19 transmission, and face-to-face work in dental clinic practice, there is a need for standard protocol that will help in future pandemic scenario.

Purpose: This study attempted to devise the SARS-CoV-19 protocol and can be used by every clinical doctor in this pandemic crisis.

Materials and methods: This protocol is based on detail research of the existing electronic literature based on clinical dental experience, by using data base biomedical researchers: Pub Med, Embase, Web of Science and Cochrane Library, in pandemic period from 2020 until now. Protocol were reviewed, and compare to protocols in similar pandemic periods.

Conclusion: In pandemic period of SARS-CoV-19, dental patients are divided into three groups of: A) healthy, B) suspected to SARS-CoV-19 and C) confirmed for SARS-CoV-19. The risk of infection transmission is high, so there is a need for separate waiting room and dental office room. All groups should have the same and equal health and dental treat, but with high dose of caution, for B) and C) group especially C) group. This protocol can be use in similar pandemic periods in the future.

Keyword: dental care, SARS– CoV-19, pandemic period, pandemic protocol, infection crisis

PP – 68**ESTHETIC REHABILITATION OF MAXILLARY CENTRAL INCISOR WITH EXTERNAL APICAL ROOT RESORPTION**

Bojan Dželetović, Marijana Popović-Bajić, Jelena Nešković

Department of Restorative Dentistry and Endodontics, School of Dental Medicine, University of Belgrade

Background: Discoloration, as one of the most common reasons for poor teeth esthetics can be concern for many persons. Whitening of teeth is a conservative alternative to more invasive and expensive treatment.

Goal: To report a clinical case of aesthetic rehabilitation, after endodontic retreatment, of maxillary right central incisor with history of trauma and external apical root resorption.

Case report: A 36-year-old male reported with a chief complaint of discolored maxillary incisor. Patient had a history of trauma in maxillary front region 10 years before, was symptom free and radiography revealed poor endodontic treatment with extensive external root resorption. Endodontic retreatment was performed and root canal filled with calcium silicate-based cement. Process of whitening consisted of two sessions of in office whitening procedure (light whitening 32% hydrogen peroxide) followed by walking bleach technique (16% carbamide peroxide).

Discussion: Desired esthetic treatment without further affecting tooth structure in some cases requires the combination of whitening techniques. Technique of in office whitening offers esthetic result in short period of time while walking bleach technique is easier to use from perspective of some patient.

Conclusion: From the present case it was concluded that it was possible to achieve esthetic rehabilitation of discolored maxillary incisor with poor endodontic treatment and extensive external root resorption through the combination of dental whitening techniques.

PP – 69**THE INFLUENCE OF ACCESS CAVITY DESIGN ON PREMOLAR FRACTURE RESISTANCE**

Vanja Opačić Galić¹, Tatjana Savić-Stanković¹, Neda Ninković¹, Isaak Trajković², Miloš Milošević²

¹University of Belgrade, School of Dental Medicine, Department for Restorative Dentistry and Endodontics, Belgrade, Serbia; ²Innovation Centre of Faculty of Mechanical Engineering, University of Belgrade

Background: For decades, the access cavity was supposed to provide good visibility, a straight flow of instruments, which enables the quality performance of all subsequent phases of endodontic treatment. More than a third of the extracted, fractured teeth are endodontically treated teeth, so the minimally invasive concept, with saving crown dental tissue goal, is now applied in endodontics. The aim of this study was analyzed fracture resistance of endodontically treated premolars with traditional and conservative access cavities.

Material and Methods: The study included 28 premolars of the upper and lower jaw. In 12 premolars, endodontic treatment was performed with reduced, conservative access cavity (CEC), and in 12 with traditional access cavity (TEC). The control group was intact premolars. Access cavities were restored with glass-ionomer cement and conventional composite. The teeth were then exposed to a vertical point load in the area of the occlusal surface of the filling until the tooth crown ruptured (force expressed in N). Crown fractures in relation to the enamel-cement border were also analyzed, which determined whether tooth reconstruction was possible.

Results: The average fracture resistance of intact premolars was 1623.55±356.02 N, which is a statistically significant difference ($p < 0.05$) compared to endodontically treated teeth. Tooth fracture resistance with TEC was 626.61±194.73 N, and with CEC 750.36±358.76 N, without statistically significant difference. Analyzing fractures, 75% of teeth with CEC and 58% with TEC were for extraction, without the possibility of reconstruction.

Conclusion: Premolars with conservative access cavities had higher fracture resistance compared to traditional ones, but its influence on the quality of endodontic therapy

PP – 70**RELATIONSHIP BETWEEN THE CALSIFICATION DEGREES OF SECOND PREMOLAR AND OTHER TEETH IN PRESCHOOL CHILDREN**

Meltem Bakkal, Elif Sifil, Deniz Basaran

Bezmialem Vakif University

Aim: In early childhood, the dental images on radiographs are not clear enough to decide the congenital missing teeth which is mostly the second premolar. The aim of this retrospective study was to base the relationship between calcification degrees of second premolars and other permanent teeth on qualitative measurements.

Methods: Dental panoramic radiographs of 6813 children, who were aged as 42-78 months, without any systemic disease affecting bone and teeth development, without any developmental disorder or oligodontia, were evaluated by 2 researchers using Nolla's dental age estimation method.

Results: It was found that, while the second premolars are still at the stage of follicle formation (Nolla1);

1. All of 4 permanent first premolars are seen at the stage where one third of the crown length is completed (Nolla 3),
2. The crown developments of maxillary permanent first molars are at the stage of almost completed (Nolla 5),
3. The mandibular permanent first molars are at the stage of completed crown development (Nolla 6),
4. The maxillary permanent second molars are in the phase of presenting follicle (Nolla 1),
5. The mandibular permanent second molars are in the phase where calcified points begin to observe (Nolla 2).

Conclusion: If the follicle of second premolar cannot be detected on the radiographs, while the other permanent teeth are already completed these found stages, the absence of second premolar teeth should be considered. In addition, delayed calcification of these teeth should be kept in mind, thus follow-ups are needed to be sure.

PP – 71

COMPARISON OF THE FRACTURE STRENGTHS OF LASER SINTERED FRAMEWORK DESIGNS FOR METAL-CERAMIC RESTORATIONS

Emel Arslan¹, Özlem Kara²

¹*Private Clinic*; ²*Bezmialem Vakif University Faculty of Dent*

Background

The design of the metal framework may affect the mechanical properties of metal ceramic restorations. The purpose of this study was to compare the fracture strength of different metal framework designs of metal ceramic restorations prepared by using direct metal laser sintering.

Methods and materials

Co-Cr metal frameworks for 3-unit fixed partial dental prosthesis were fabricated and subdivided into four groups, Group 1: veneered frameworks with a standard pontic design, Group 2: veneered frameworks with a mesh pontic design, Group 3: unveneered frameworks with a standard pontic design, Group 4: unveneered frameworks with a mesh pontic design. All samples were cemented to metal dies and subjected to fracture testing using a 5 mm diameter ball-shaped tip in a universal testing machine. The unfractured frameworks were scanned and STL data of mesh designed pontics were superimposed with standard pontic designs to compare the bending amount.

Results

There were no statistically significant differences in the mean fracture strength values between Group 1 and Group 2 ($p>0.05$). The fracture strength values of Group 3 were higher than Group 4 ($p<0.05$). There was a statistically significant difference between the distance between the points superimposed at the buccal, mesial and palatal aspects of the premolar and molar abutments ($p<0.05$).

Conclusion

Weight of frameworks can complicate fabrication and comfort of patients especially in long-span bridges.

This mesh designed metal frameworks can be an alternative to other expensive framework materials such as titanium.

PP – 72**SYMPTOMATIC IRREVERSIBLE PULPITIS IN PATIENT WITH MULTIPLE PULP STONES**

Bojan Dželetović, Slobodan Jovanović, Svetlana Antić

Department of Restorative Dentistry and Endodontics, School of Dental Medicine, University of Belgrade

Background: Pulp stones are calcified structures that unusually occur within the dental pulp and alter the internal tooth anatomy. An even rarer finding is its occurrence in multiple teeth of a person and association with pulpal pain.

Goal: To present a case of endodontic treatment due to symptomatic pulpitis of maxillary molar in patient with multiple pulp stones.

Case report: A female patient reported to our department with a chief complaint of pain in the upper right molar region. Intraoral examination revealed class II filling on right maxillary molar without percussion and palpation sensitivity. Panoramic radiograph revealed pulp stones in maxillary molars. During access cavity preparation pulp chamber was modified and stones freed from dentinal walls. After the removal of pulp stones, root canal treatment was completed in one visit.

Discussion: Retrieval of pulp stones is critical for successful endodontic treatment and consequent resolution of patient's symptoms. Pulp stone can be dislodged and removed using proper ultrasonic tips but also by convenient burs. Its retrieval may be related to potential complications such as excess removal of tooth structure or perforation.

Conclusion: Careful clinical and radiographic examination of the pulp chamber and knowledge of root canal anatomy variations are needed in order to increase the success rate of endodontic treatment in cases complicated by pulp stones.

PP – 73**CALCIUM SILICATE-BASED CEMENT DIRECT PULP CAPPING:
5-YEAR FOLLOW-UP**

Bojan Dželetović, Nina Ristić, Ivana Milanović

Department of Restorative Dentistry and Endodontics, School of Dental Medicine, University of Belgrade

Background: Direct pulp capping is minimally invasive, biologically based procedure in which exposure site is sealed to favor pulp healing and continued pulp vitality. Materials that have positive effect on pulp vitality preservation and prevent the need for further endodontic treatment are calcium silicate-based cements.

Goal: To report a clinical case of direct pulp capping procedure using calcium silicate-based cement with 5-years follow-up.

Cases report: A patient reported to our department for comprehensive dental care. Examination showed deep carious lesion involving maxillary molar with no symptoms, no tenderness on percussion while electric test response was similar to control tooth. Pulp was exposed during caries removal. Immediately, Biodentine was applied to the exposed site, allowed to set and definitive filling was placed. On 5-years recall the treated tooth had positive responses to electric tests and no signs of periapical pathology.

Discussion: Root canal treatment is considered disadvantageous over the vital pulp therapy procedures due to removal of a substantial amount of tooth structure and pulp tissue. In this case, we chose Biodentine due to reduced setting time, easier manipulation and dentin-like mechanical properties.

Conclusion: Placement of permanent filling at the time of pulp capping provide protection against bacterial contamination and helps to prevent the chance of clinical failure. The present case confirms that Biodentine is successful and reliable material in long-term pulp vitality preservation.

PP – 74

VISION OF THE PRESENT AND FUTURE OF GERIATRIC DENTISTRY

Adi Salihagić¹, Željka Lovrić², Dr. Ines Savić Kosanović², Dr. Anka Kvesić Jurišić³

¹*PZU MedicoOral-AS*; ²*Stomatoloska ordinacija dr. Lovric*; ³*Ustanova za skrb sesvete*

ABSTRACT

Presently, there has been a demographic increase in the elderly population aged 65+. Aging should not be understood as a synonym for disease, but rather as a natural and inevitable irreversible physiological process. Life expectancy at birth increased from 67.2 to 70.8 years. Physiological functions in the elderly are reduced by an average of 40%, which enables the outbreak of a number of functional and somatic diseases and deterioration of oral health. With the increase in chronically non-communicable diseases, there is an increase in comorbid and multimorbid diseases. The serious problem of oral diseases is increasing, which includes dental cavity, periodontal diseases, teeth loss, denture defects, masticatory disorders, swallowing, lesions of the oral mucosa and xerostomia as the cause of old and retained teeth. According to Australian studies, the DMX Index has increased (13-28%) in the elderly and 60% of them are toothless.

In the future, there will be an increase in the requirements for more complex health care, care and rehabilitation of oral health, which will require highly specialized medical staff, technical equipment, technical and laboratory procedures as well as orthodontic solutions with pharmaceutical formulations.

The vision is that older people become the main focus of the oral health industry, increasing the awareness of middle-aged people for preventive dental care in order to put a stop to oral diseases and preserve the functionality of their teeth, prevent loss of permanent dentition and protect the dental system. Oral health is an important part of active aging and its impact on the general health and quality of life of older people has been often highlighted in WHO projects. A common multidisciplinary approach of

different specialities from dental and general medicine in the treatment of the elderly is important. Oral health care should be included in national programs, which would mean maintaining general health and increasing the quality of life of the elderly.

Keywords: elderly, geriatric dentistry, oral health, age.

PP – 75**SMILE CHANGES IN CLASS II DIVISION 1 PATIENTS BEFORE AND AFTER ORTHODONTIC TREATMENT**

Ajshe Rexhep¹, Sevdi Rexhep², Biljana Dzipunova¹, Natasa Toseska-Spasova¹, Mimoza Sulejmani¹

¹*University Dental Clinical Center St. Pantelejmon; ²Private practice, Struga*

AIMS: The aim of this study was to compare smile changes in Class II division 1 patients treated by extraction of upper first premolars.

MATERIALS AND METHODS: Cephalometric radiographs of 25 of Class II division 1 patients treated with in both sides premolar extraction, were evaluated. Cephalometric radiographs and photographs of 25 patients with a normal occlusion were also evaluated. Dental, skeletal and soft tissue angular and linear measurements were considered, in cephalometric analysis. Smile line, lip line, upper lip curvature, gingival show, buccal corridors, symmetry of smile, were measured. Data were analyzed using a Student t-test.

RESULTS: After orthodontic treatment there was a reduction in a buccal corridor space. The smile line was increased after treatment. The anterior teeth became more upright, a higher upper lip line, more gingival display after treatment, than before treatment and control group.

CONCLUSION: After treatment a Class II division 1 patients with extraction, attractive smile is achieved as a result of anterior teeth inclination that lead more gingival display and a higher lip line.

PP – 76**ORTHODONTIC – PROSTHODONTIC THERAPY IN CLEFT LIP AND PALATE PATIENTS – CASE REPORTS**

Danka Milosavljević¹, Biljana Nikolić², Željko Milosavljević³

¹Private practice, Belgrade; ²Health center, Ub; ³Faculty of Dental medicine, Belgrade

The aim of this work is to present the possibilities of orthodontic preparations for optimal functional and aesthetic prosthodontic rehabilitation of persons with cleft lip and cleft palates.

In patients with clefts, orthodontic and surgical therapy intertwine from birth to the end of the growth.

At the end of growth, a final surgical correction of the nose and scars is undertaken for maximall aesthetic results. Orthodontic therapy serves not only for aesthetics but also as a preparation for prosthodontic therapy. Most often because of the hypodontia or extracted tooth in the cleft line these patients need a prosthodontic work. A particular problem for prosthodontists are bone defects in the cleft zones, which can be solved with implantanion of bone drafts and artificial bone. Patients with cleft lip and palate, while growing up have serious health problem, but also psychological and social problem because of its appearance.

When, final aesthetic surgical corrections are made after growth ends, and after the end of the orthodontic treatement and prosthodontic rehabilitation, patients are extremely pleased with improvement of the aesthetics and function, thereby gaining confidence and more value in the environment.

PP – 77**RELATIONSHIP BETWEEN ASTHMA AND GINGIVAL HEALTH**

Bojana Davidović, Svjetlana Janković, Ružica Lukić, Jelena Lečić, Jovana Hrisa Samardžija

University in East Sarajevo, Faculty of Medicine, Dentistry department, Foca, RS, Bosnia and Herzegovina

Introduction / Aim : Asthma is a chronic inflammatory respiratory disease. The aim of the study was to evaluate asthmatic children (AC) gingival health status and to compare it to the status in children without asthma (CWA), as well as to analyze data in relation to the time of used medication in AC group. **Material and Methods:** The study included 68 AC and 68 CWA, 6 to 16 years of age. Based on the present asthma symptoms and its control, AC group was divided into subgroups: children with well-controlled asthma (n=44) and children with partially controlled asthma (n=24). Gingival clinical evaluation was performed according to Löe-Silness index. Parents and children completed a questionnaire related to type and length of anti-asthma medication and asthma control tests. Obtained data were registered into specially designed chart.

Results: A healthy gingiva was more prevalent in CWA (25%), while mild (58.8%) and moderate (5.9%) gingival inflammation was more present in AC ($p<0.01$). In relation to asthma control, values were similar between the observed groups. Higher gingival index values ($p<0.05$) were associated with afternoon medication in the AC in partially controlled asthma group.

Conclusion: Gingival changes were more prevalent in AC. The occurrence of gingivitis in AC is influenced by many factors such as genetically, physiologically and the presence of bad habits, consequently, it is necessary for these children and their parents to be explained the importance of oral health and good oral hygiene behavior.

Key words: Children, asthma, gingiva, Löe-Silnessov index

PP – 78**MODERATE MENTAL RETARDATION-DENTAL PRACTICE IN GENERAL ANESTHESIA**

Jovana Hrisa Samardžija, Bojana Davidović, Svjetlana Janković, Dragan Ivanović, Jelena Lečić

University of East Sarajevo, Faculty of Medicine Foča

Introduction: Moderate mental retardation patients have an IQ of 35-50. This corresponds to 4 to 7 year's old child. They are more commonly affected by somatic and neurological diseases, like epilepsy, paresis, paralysis, and changes in physical appearance. These persons are late in psychomotor development, find it more difficult to establish control of the sphincter and need constant supervision. Underlying condition compromises their oral health due to difficulties in oral hygiene maintenance. The aim of the study was complete rehabilitation of the oral cavity under general anesthesia.

Case report: A patient with moderate mental retardation, age 10 years, was admitted to Department of Maxillofacial Surgery, University Hospital in Foca, for dental procedures in general anesthesia. A detailed hetero-anamnesis was obtained, clinical examination and analysis of accompanying tests (X-ray, complete blood counts) was collected. Doctor who oversees patient's underlying condition supported medical documentation by written consent and patient was prepared for general anesthesia. After the introduction of general anesthesia, the complete rehabilitation of the dental status was performed. Hard and soft deposits were removed; carious teeth 26, 36 restored with amalgam fillings; carious teeth 64, 65 were extracted.

Conclusion: The use of general anesthesia enables dental care of moderate mental retardation patients. Good preoperative preparation and assessment, as well as the selection of the appropriate general anesthesia contributed to a minimum number of complications.

PP – 79**BARRIERS FOR DENTAL HEALTH**

Stanislav Nenov, Boiko Bonev, Krasimir Tsokov

Department of Public Dental Health, Faculty of Dental Medicine, Medical University – Sofia, Bulgaria

Introduction

Dental health is an integral part of general human health. Different types of factors can act as a barrier and obstruct access to dental care. They are classified in three main groups – related to patients, related to dental profession, and related to state/community.

Purpose

To establish the impact of each group of barriers on dental health of population.

Methods and material

To accomplish the purpose was developed a questionnaire and anonymous survey was conducted among 138 dentists – directly and by internet. The survey was compliant to ethics and the results were analyzed statistically.

Results

Main barriers for dental health are related to state/community (50.68%), followed by barriers related to patients (45.21%) and barriers related to dental profession (4.11%). The main barriers related to state/community are lack of adequate health policy (78.26%) and lack of health culture (73.19%). The main barrier related to patients is perceptions of treatment need (79.71%), followed by dental fear (78.99%), and the price of treatment (74.64%). The main barrier related to dental profession is unregular geographic distribution of practices (71.74%), followed by education (36.96%) and number (30.34%) of dentists inconsistent to the needs of the society, and lack of sensitivity to patient's needs (18.12%).

Conclusion

Barriers for dental health can impact health of population. Knowledge of them, as well as mechanisms to influence them, can improve access and quality of dental health services.

PP – 80**ANTIBACTERIAL EFFICIENCY OF ADJUVANT PHOTODYNAMIC THERAPY AND HIGH-POWER DIODE LASER IN THE TREATMENT OF YOUNG PERMANENT TEETH WITH CHRONIC PERIAPICAL PERIODONTITIS. A PROSPECTIVE COMPARATIVE CLINICAL STUDY.**

Dragana Rakasevic¹, Jelena Marinkovic², Jovan Markovic¹, Natasa Pejic¹, Dejan Markovic³

¹School of Dental Medicine, University of Belgrade; ²"VINČA" Institute of Nuclear Sciences – National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia; ³Department of Pediatric Dentistry, School of Dental Medicine, University of Belgrade

Background:

The study aimed to determine antimicrobial efficiency of adjuvant laser-devices methods in the treatment of chronic periapical periodontitis (CPP) in young permanent teeth. Material and Methods: Forty-four young permanent teeth with CPP were selected and randomly divided into two tested groups- photodynamic therapy (PDT) and diode laser (DL) groups, and a control one (only mechanico-chemical endodontic treatment, MC). Each tooth was undergone standard MC endodontic treatment while in tested groups tooth was additionally treated by either PDT or DL (940 nm, 1W). The canals were fulfilled with calcium hydroxide and definitive obturation was performed after seven days. Microbiological analyses of root canals were assessed after accessing the canal, following MC treatment, and PDT or DL procedure by means of MALDI-TOF spectrometry and plate count assay. To evaluate clinical efficiency of treatments, radiography records were compared before and six months afterwards.

Results:

Totally, thirty-nine young permanent teeth with CCP in patients mean ages 9.77 ± 1.43 completed the study. Prior to endodontic treatment, *Enterococcus faecalis*, *Streptococcus* spp., *Porphyromonas endodontalis*, and *Peptostreptococcus micros* were the most commonly isolated bacteria. Statistically significant reductions in bacteria species and counts were observed in all three endodontic treatment methods ($p < 0.001$). Even though it was

not statistically significant, adjuvant PDT effectively reduced the bacterial count and diameter of periapical lesions ($p=0.057$, and $p=0.078$) in comparison to DL and MC treatment. Conclusion: The results indicated that both treatment modalities, PDT and DL, could be performed as adjuvants to standard endodontic treatment of the young permanent teeth with CPP.

PP – 81**RETRIEVAL OF PULP STONE FROM SECOND MAXILLARY MOLAR**

Bojan Dželetović, Vojislav Komlenić, Ivana Milanović

School of Dental Medicine, University of Belgrade

Background: Pulp stones are calcifications masses that can be found in diseased or even unerupted teeth of both dentitions. These calcified structures can create difficulties for proper instrumentation by blocking access to the root canals and influencing the outcome of endodontic procedure.

Goal: Our goal was to report retrieval of pulp stone completely filling coronal pulp chamber of second maxillary molar.

Case report: A 27-year-old male patient was referred to our department with a chief complaint of prolonged pain on intake of cold beverages and episodes of spontaneous pain in the upper left molar region. Clinical examination revealed class II cavity on the second left maxillary molar without sensitivity on percussion or palpation. Dental radiograph revealed multiple pulp stones in molar regions. Large pulp stone that occupied whole coronal pulp space was freed from dentinal walls using an ultrasonic tip. Root canals were instrumented and obturated in a single visit.

Discussion: Anatomical details helpful in differentiation of pulp stones and surrounding dentin as well as location of root canal orifices are color difference between floor and walls of pulp chamber. Also, root canal orifices are usually at the terminus of root developmental fusion lines and at junction of pulp chamber walls and floor.

Conclusion: The clinician must be familiar with the possibility of pulp space anatomical variations caused by pulp stones in order to avoid potential complications. The presented clinical approach could be helpful in avoiding perforations or excessive removal of hard tissues and weakening of the tooth.

PP – 82**EXAMINATION OF THE RADIOPACITY OF DIFFERENT CANAL FILLING PASTES**

Ivana Milanović, Jovana Stasic, Mina Medojevic, Melisa Dalifi, Marina Latkovic

School of Dental Medicine

Introduction: Adequate radiopacity is necessary for distinction of the root canal filling material from surrounding dental and periapical tissues and for detection of voids in the obturation.

Aim: The aim of this study was to determine the radiopacity of different sealers: epoxy based Adseal (Meta Biomed, South Korea), calcium silicate-based Ceraseal (Meta Biomed, South Korea) and control AH Plus (Dentsply, Germany).

Material and method: The radiopacity was tested in accordance with the International Organization for Standardization (ISO 6876). The sealers were mixed following manufacturer's instructions and three specimens, 5 mm in diameter, 2 mm high, were made for each tested material. Following setting, specimens were radiographed using radiovisiography system (CCD sensor, Trophy, France) with the exposition of 0.04s, voltage of 60 kV and amperage of 10mA. The source to object distance was 35cm. The specimens of each sealer were radiographed alongside with an aluminum step-wedge graduated from 1 to 10 mm (in 1-mm increments). The measurements of the gray-scale value of each step of aluminum step-wedge and the materials tested was performed using Adobe Photoshop CS7 (San Jose, USA). The correlation between the logarithm of aluminum thickness and its corresponding gray scale value was used to calculate the equivalent thickness of aluminum for each of the examined root canal sealer specimen. Data were compared using one-way ANOVA with Turkey's post-hoc test ($\alpha=0.05$).

Results: All three sealers achieved radiopacity over 3mm Al. There was no statistically significant in the values radiopacity of the tested sealers ($p>0.05$).

Conclusion: Based on the obtained results, it can be concluded that all three sealers achieved the values prescribed by the ISO standard.

PP – 83**RETREATMENT OF MAXILLARY CANINE WITH TWO ROOT CANALS**

Minja Miličić Lazić, Bojan Dželetović, Jelena Vučković

School of Dental Medicine, University of Belgrade

Background: Maxillary canines are considered to be single-canaled teeth and alteration in the internal canal anatomy of maxillary canine is a rare and unusual condition. Successful endodontic therapy requires an extensive knowledge of root canal morphology and its variation.

Goal: To report a clinical case of retreatment of maxillary canine with two root canals.

Case report: A 74-year-old male was referred to our department for the maxillary canine root canal retreatment. Patient was without symptoms and sensitivity on percussion and palpation. Radiography showed inadequate obturation and a possibility of a complex canal system. Endodontic retreatment was planned and subsequent tactile exploration of pulp chamber revealed an untreated extra canal. After preparation and medication phase retreatment was completed in second visit. Check-up after 5 years showed that the treated tooth was asymptomatic with no signs of pathology.

Discussion: Careful tactile examination of the pulp chamber and additional radiographs were needed to reveal the existence of the extra canal. Nonidentification of the additional root canals could be cause of endodontic treatment failure and clinicians should be aware of the occurrence of a rare canal anatomy variation.

Conclusion: Knowledge of root canal morphology variation with thorough endodontic and radiographic evaluation is important in achieving successful root canal treatment. Special care is required to locate and treat possible extra canals in order to increase the success rate of endodontic therapy.

PP – 84**EFFECTIVE TREATMENT PROCEDURE FOR COMPLETE ROOT COVERAGE IN LOCALIZED GINGIVAL RECESSION-A CASE REPORT**

Ljiljana Marković

Dental Practice "Dr Ljiljana Marković"

Gingival recession is the displacement of the gingival soft tissue apical to the cemento-enamel junction. There are many mucogingival grafting procedures for coverage of the exposed roots. Also, multifactorial etiology of the gingival recession demands non-surgical implementation before the surgical treatment.

The aim of this report was to evaluate root coverage using laterally positioned pedicle flap, combined with previous elimination of etiological factors.

This report documents clinical feature of 26-year-old female patient, who was referred to our dental office, complaining of receding gums of the lower right incisor, that caused poor esthetic and worry about potential tooth loss.

Detailed clinical examination revealed Miller class II defect on the labial surface of the malpositioned lower right central incisor with aberrant frenum pull adjacent to the recession defect. The oral hygiene was poor. The patient had no systemic diseases.

After the improvement of oral hygiene, elimination of occlusal trauma and frenectomy, surgical procedure was done using laterally positioned pedicle flap.

Complete root coverage was achieved 4 months later. There were no post-operative complications. Donor and recipient sites were healing well. The patient was, also, satisfied with optimal esthetic and clinical outcome.

Considering these results, laterally positioned pedicle flap can be successful surgical treatment procedure of localized gingival recession, supported by elimination of identified etiological factors.

PP – 85**BIOLOGICAL AND PHYSICOCHEMICAL PROPERTIES OF CLINICALLY COMMONLY USED CALCIUM SILICATE CEMENT**

Dragan Ilić, Sanja Milutinović-Smiljanić, Vesna Daniloivić, Veljko Ilić, Đorđe Antonijević

University of Belgrade School of Dental Medicine

Background/ Aim. The aim of this study was to characterize the physicochemical properties of the commercially available calcium silicate based dental cement Biodentine (Septodont). **Methods.** Material elucidation included measurements of radiopacity, scanning electron microscopic and x-ray dispersive analyses, wettability, Fourier transform infrared spectroscopy, microindentation, micro- to nano-porosity, setting time, pH and calcium ion release. Cells were grown on Biodentine surface in order to evaluate its behaviour under biological conditions. **Results.** The radiopacity of the cement (2.8 mmAl) was below ISO requirement for a root canal filling material. The cement was composed of fine powder with particles similar in size and shape changing from oval to cubic after soaking in simulated body fluid. Calcium silicates and calcium carbonate are the main compounds of the cement. Biodentine demonstrated good micromechanical properties and low porosity attributed to micro porosity with average pores size of 92 μm . Wettability (contact angle=41°), calcium ions release (0.098 $\mu\text{g}/\text{cm}^2$) and pH of storage solution (9.07) showed satisfactory characteristics. Cells presented intimate contact with cement particles indicating its good biocompatibility. **Conclusion.** Biodentine exhibits good mechanical and physicochemical characteristics, but possesses insufficient radiopacity.

Keywords: Biodentine; calcium silicate; dental cement; reference point indentation; micro computed tomography.

PP – 86**EFFECT OF DENTURE CLEANSERS ON COLOR STABILITY OF POLY-ETHERKETONEKETONE/COMPOSITE STRUCTURE**

Kubra Erdem¹, Ozgun Yusuf Ozyilmaz²

¹Istanbul Medipol University, Faculty of Dentistry, Department of Prosthodontics; ²Bezmialem Vakif University, Faculty of Dentistry, Department of Prosthodontics;

Purpose: The purpose of this study was; to evaluate the effect of denture cleansers on color of the PEKK-composite structure.

Methods: One hundred and ninety-six discs with a diameter of 10 mm and a height of 4 mm were fabricated from PEKK blocks. PEKK bond was applied to the specimens, with the help of Teflon mold, a pink composite resin with a diameter of 3 mm and a height of 4 mm was veneered on the surface of the PEKK. The specimens are divided into 4 groups according to the different solutions. These groups are; Corega, Protefix, Curaprox and Distilled water (n = 48). All specimens were immersed to denture cleaners or distilled water for 8 hours a day for 140 days. Color measurements of the specimens were determined with spectrophotometer by measuring at baseline, and again after immersion of denture cleaners. Color parameters (L*, a*, b*, ΔE) are calculated according to the CIE Lab (Comission Internationale de L'Eclairage) system. Data were analyzed by One-way analysis of variance (ANOVA) followed by Tukey's honestly significant difference test. p≤0.05 was considered significant.

Result: The color change values (ΔE) of the specimens immersed to the Corega and Curaprox group were statistically significantly higher than the Protefix and Distilled water groups (p≤0.05). While the effect of cleaning solutions prepared with Corega and Curaprox on the color change of the PEKK-composite structure is not clinically acceptable, the effect of Distilled water and Protefix solution is within clinically acceptable limits.

Conclusion: It is necessary to know the effectiveness of the cleaning agents on PEKK/composite structure to be used while ensuring the hygiene of these restorations.

PP – 87**REHABILITATION OF TWO PATIENTS WITH TORONTO HYBRID OVERDENTURE PROSTHESIS: CASE SERIES**

Ozge Doganay¹, Burcu Kanpalta², Ozgun Yusuf Ozyilmaz²

¹Department of Oral and Maxillofacial Surgery; ²Department of Prosthodontics

Objective: Rehabilitation of atrophic jaws is challenging issue in dentistry. Resorption pattern of jaws with age may lead to inevitable bone loss which is requiring additional augmentation techniques. The aim of this report presents to take of advantages of Toronto hybrid prosthesis which allow soft tissue supporting, especially lips and cheeks.

Material and Methods: First patient underwent to autogenous bone augmentation for the atrophic maxilla. After 4 months from the augmentation, implants were inserted. In other patient, implants were inserted into both upper and lower jaws. After 3 months of the implant surgery, impressions were taken using the pick- up technique and a test for occlusion and aesthetic composition was performed on a wax-up, to simulate the final restoration. Toronto hybrid prosthesis was designed for both patients in order to provide a suitable emergency profiles, occlusal relationships and aesthetics. After a clinically acceptable abutment passive fit was confirmed, multiple individual crowns of metal-ceramic were made. The mesostructure was ceramicized in pink to mimic the soft tissues.

Results: Discrepancies of the jaws were corrected and occlusal relationship was supplied. None of the implants showed any sign of infection. During follow-up periods, it hasn't registered any complication.

Conclusion: By supporting soft tissues in both patient. aesthetic and functional appearance of teeth and social smile were provided by Toronto hybride prosthesis.

Key Words: Toronto prosthesis, implant supported Toronto hybrid prosthesis, atrophic jaws, resorption.

PP – 88**THERAPY OF FACIAL ASYMMETRY - CASE REPORT**

Željko Milosavljević¹, Predrag Nikolić¹, Mladen Milosavljević²

¹Faculty of dental medicine, Belgrade; ²Private practice, Belgrade

The aim of the paper is to present the solutions for extreme facial asymmetry with orthodontic therapy only.

The expressed facial asymmetries are usually resolved surgically, with prior orthodontic preparation, and in that way, the stability of occlusion and normal function as well as the retention of the achieved result. However, there are patients who do not want to undergo surgery and who insist on solely orthodontic treatment, and are aware that they cannot obtain the optimal aesthetic effects.

A patient who came to our clinic with asymmetry in the transverse direction, cross bite and a nose deviation. He insisted only on an orthodontic treatment with eventual surgical correction of the nose afterwards. In the first phase of the therapy specially constructed device for transversal widening of the right side of the upper jaw and left side of the lower jaw. After the correction of the cross bite and the removal of the device, we continued with the classic fixed appliance treatment with the correction of the position of the incisors and the midline. At the end, the lengthening of the clinical crowns was done, and the patient got the maximal aesthetic result, and also did the nose surgery.

Orthodontic therapy, with only surgical correction of the nose, achieved aesthetically satisfactory results the patient was pleased with. Stable occlusion and normal functions were of course achieved.

PP – 89**TREATMENT OF UNILATERAL POSTERIOR CROSSBITE AND POLYDIASTEMA BY FIXED APPLIANCES – A CASE REPORT**

Ebru Topcuoglu, Taner Ozturk, Ahmet Yagci

Department of Orthodontics, Faculty of Dentistry, Erciyes University, Kayseri, Turkey

Background: The aim of this study was to show the treatment of a patient with unilateral posterior crossbite and polydiastema with rapid maxillary expansion and fixed orthodontic appliances.

Materials and Methods: A 17-year-old female patient presented with the complaint of spaces between her teeth. She was diagnosed with unilateral posterior crossbite on the right, spaced between the teeth (polydiastema) in the lower and upper dental arches, dental class I malocclusion, 1 mm overjet and overbite, 0.5 mm upper dental midline and 1 mm lower dental midline to the right. Skeletal class I malocclusion (ANB 1.7), normal vertical pattern (SN/GoGn 32.9), normal position but proclined upper incisors (U1-SN 112.1 U1-NA 3.4 mm), normal position and inclination lower incisors (IMPA 89.9 L1-NB 4.5 mm), a normal nasolabial angle and normal lips were found in cephalometric values. At the end of all evaluations, it was decided to apply fixed orthodontic appliances after rapid maxillary expansion with hyrax.

Results: Rapid maxillary expansion procedure with Hyrax expansion device 4 months, total treatment time 18 months. Stable class I occlusion was achieved at the end of the treatment, the overjet and overbite were 2mm, and the midlines were overlapping. In the final cephalometric evaluation, the positions of SNA, SNB, ANB, SN/GoGn, and upper incisors were in appropriate values, but the lower incisors were somewhat retroclined. Fixed lingual retainers were applied between the lower first premolars and between the upper lateral incisors for orthodontic reinforcement, and it was also recommended to wear essix clear appliances continuously in the lower and upper dental arches.

Conclusion: Unilateral crossbite and polydiastema problem are successfully treated with hyrax type expander and fixed orthodontic appliances. The results of the treatment are stable and good occlusion, acceptable orofacial functions and facial aesthetics.

PP – 90**APY THERAPY AS AN ADDITIONAL TREATMENT OF INFECTION CORNERS OF THE LIPS****Snezana Radisic*****DZ Rakovica Belgrade;*****Introduction**

Cheilitis agularis is a multifactorial disease. It is localized at the corners of the lips. If detected on time and properly treated, it is easy to treat. If not, patients may attempt various therapies without success. In such circumstances, prolonged topical treatment of the skin is required.

The aim

The aim of this paper is to articulate the factors that cause this disease, how it is treated and the possibility of using alternative products - particularly propolis (bee glue) and bees wax.

Method

The population monitored was toothless and part-toothless. They were selected from patients in the Municipality of Rakovica, Belgrade, Serbia. These individuals had requested prosthetic dentures. In the course of medical examination, it was found that they also had infection in the corners of their lips.

Result

In addition to standard therapy involving prosthetics rehabilitation and the use of antibiotic creams and balms, balms based on beeswax, propolis and essential oils were added.

To these were added olive and marigold oil, as well as essential oils of lavender, camomile and teatree. These are known to be natural antiseptics.

Conclusion

Antibiotics therapy was used only as necessary. The application of medicinal preparations is very important.

It was found that the application of bees wax provided excellent care. The addition of propolis and essential oils enhanced these effects under the condition that patient is not allergic to bee products.

Key words: cheilitis angularis, propolis, beeswax, essential oils

PP – 91**BOND STRENGTH OF THE BULK FILL COMPOSITE MATERIALS**

Emilija Kostadinovska¹, Apostolska Elencevska S², Sarakinova O¹, Rendgova V²

¹Faculty of Dental Medicine, European University Skopje; ²University Dental Clinical Centre “St. Panteleimon;

Introduction

The Bulk Fill composites possess specific features, including increased flow rates in order to achieve an appropriate cavity adaptation. Elasticity and low polymerization lead to a stress reduction and micro-flow, and thus to a reduction in postoperative sensitivity and the emergence of secondary caries. An improved depth of at least 4 mm eliminates the need for layered application techniques, thereby reducing working hours.

The purpose of this study was to make a research and compare SBS of the composite resins by the bulk application technique and the conventional composite resins with a layered material application technique

Material and method

In order to realize the set goals in our in vitro study, we included 35 extracted, non-carious molars in male and female patients of different ages as research samples. Three commercial Bulk Fill composites have been tested (TetricEvoCeram Bulk Fill, TetricEvoCeram Bulk Flow, SDR) and used to control two conventional composites (Filtek Z250, Gradia posterior) with a layered application technique of 2 mm. The materials used in the study are presented.

Conclusion

Although this study has a number of limitations, the results indicate that the application of bulk fill composite material results in an acceptable SBS comparable to that achieved through conventional RBC. As such, bulk fill composites can provide reliable alternatives to conventional composites. This can be of potential benefit to dentists because the bulk fill composite materials are simpler than the conventional composites and can be more efficiently applied. However, further research in this area is required to better understand how the relation forces of these adhesion systems relate to clinically acceptable conditions.

PP – 92**COLOR STABILITY ASSESSMENT OF TWO METHACRYLATE-BASED RESIN COMPOSITES IN DIFFERENT BEVERAGES**

Korać Samra, Konjhodžić Alma, Džanković Aida, Hasić- Branković Lajla, Tahmišćija Irmina

Faculty of Dentistry, University of Sarajevo

Background: The aim of this study is to evaluate the effect of three different beverages on color stability (ΔE^*) and $L^*a^*b^*$ color parameter values of two different composite resins after a period of 7, 15, and 30 days.

Materials and methods: The materials studied were microhybrid (Filtek Z250, 3M ESPE) and nanocomposite (Filtek Z550, 3M ESPE). Twenty disc-shaped samples (10x2 mm) from each material were randomly (n=5) immersed in coffee, Coca-Cola, tea, and deionized water as a control group. During the experiment, all specimens were kept under a controlled temperature of $37^\circ\text{C} \pm 1^\circ\text{C}$. The specimens were dipped into beverages 4h/day for 30 days followed by immersion in deionized water.

Color measurements were recorded with a calibrated digital spectrophotometer according to the CIEL $^*a^*b^*$ system over a white background. Color change values were measured 24h after polymerization, and 7th, 15th, and 30th day of immersion, respectively. Statistical analysis was made using mixed and factorial ANOVA and Bonferroni corrected t-tests ($p < 0.05$).

Results: For both tested materials, immersion in coffee and tea resulted in discoloration beyond the acceptability threshold ($\Delta E^* > 3.48$) and imperceptible color change after immersion in deionized water ($\Delta E^* < 1$). The least discoloration was observed in both Coca-Cola beverage subgroups, which was perceptible only for Z550. Discoloration of coffee and tea subgroups showed shifts in the $L^*a^*b^*$ parameters towards the dark, red and yellow.

Conclusions: Both composite materials displayed unacceptable color changes after immersion in coffee and tea already after seven days of immersion. A statistically significant difference between materials was observed only after immersion in coffee.

Keywords: Composite Resin, Color Stability, Discoloration, Beverage, Spectrophotometry

PP – 93**EARLY TREATMENT OF A CLASS III PATIENT WITH CHINCUP: A CASE REPORT**

Gozde Gur¹, Dilek Erdem²

¹Ankara University, Graduate School of Health Sciences, Department of Orthodontics, Turkiye; ²Ankara University, Faculty of Dentistry, Department of Orthodontics, Turkiye.

Background: Class III malocclusions are usually related to growth and mandibular posture. The mixed dentition stage of development may provide a useful opportunity to embark upon orthodontic therapy to correct a Class III malocclusion. Chin cap is a useful appliance in growing patients that exhibit mandibular prognathism.

Purpose: To describe the early treatment of a Class III malocclusion by using chincup.

Materials and Methods: This case report presents a 9 year-old girl with a functional Class III malocclusion and anterior crossbite. She has treated by using chincup for 10 months. The occlusion was elevated with a maxillary appliance, and the maxilla was freed from the restriction of the mandible. In this way, the maxilla was able to continue its development and the growth of the mandible was limited by chincup.

Results: Anterior cross-bite was corrected and a positive overjet were achieved. Facial profile was improved. While posterior rotation of the mandible was expected with the effect of the chincup, SN-GoGn angle didn't change in this case.

Conclusion: At the end of treatment, a class I relationship and a smooth soft tissue profile were obtained.

PP – 94**NON-VITAL DISCOLORED TEETH BLEACHING USING THE WALKING BLEACH TECHNIQUE :A CASE REPORT****Gurcag Gur***Ankara Universty Graduate School of Health Sciences Department of Restorative Dentistry, TURKIYE*

Introduction : Recently a visually pleasing smile has become a major concern for the patients; therefore, dental bleaching has gained importance due to its safety and great aesthetic results.

Aim: The aim of this case report is to demonstrate the walking bleach technique in non-vital endo treated teeth.

Materials and methods : A female patient presented with intrinsic discolored maxillary central incisors after endodontic therapy. Maxillary central incisors were isolated with rubber dam and 2mm of the gutta-percha was removed in an apical direction beyond the cemento-enamel junction. Glass ionomer cement was used as a barrier material. Mixture of hydrogen peroxide and sodium perborate placed in the pulp chamber and the teeth were temporarily restored with zinc phosphate cement. Following the treatment, a satisfactory aesthetic result was achieved.

Conclusion : In this case, using the walking bleach technique was found to be successful in whitening discolored teeth after endodontic therapy. This method can be recommended as a safe alternative for treating with discolored devitalized teeth.

PP – 95**SIGNIFICANCE OF IRRIGATION IN ENDODONTIC PROCEDURES**

Alma Konjhodžić, Samra Korać, Lamija Rustempašić, Haris Šegalo

Faculty of Dentistry with Clinics University of Sarajevo

Background: The success of an endodontic treatment depends upon how efficiently the microbes are eradicated from the root canal. Irrigation is a key part of successful root canal treatment, because it is the only way to reach and impact those areas of the root canal wall which can not be processed with mechanical instrumentation. It fulfils several more important mechanical, chemical and microbiological functions: it reduces friction between the instrument and dentine, improves the cutting effectiveness of the files, dissolves tissue, cools the file and tooth, and furthermore, it has a washing effect and an antimicrobial/antibiofilm effect.

Aim: The purpose of this study was to investigate various types of endodontic irrigants used by general dental practitioners (GDPs) and specialists in Bosnia and Herzegovina as well as their effectiveness in practice.

Methodology: An online questionnaire was sent to number of dental offices registered in Bosnia and Herzegovina. This questionnaire consisted of fifteen questions related to the irrigant used in root canal treatment.

PP – 96**ENDODONTIC THERAPY OF EXTERNAL ROOT RESORPTION OF LATERAL MAXILLARY INCISOR AS A COMPLICATION OF TRAUMA**

Tanja Negovanovic¹, Andjelka Mladenovic², Dejan Markovic³

¹*Private Specialist Dental Clinic "Dr Kuljača";* ²*Health Center, Kursumlija;*

³*Clinic For Pediatric And Preventive Dentistry, Faculty of Dentistry, University of Belgrade*

BACKGROUND: Dental root resorption is associated with physiological or pathological processes, that lead to the loss of dentin and cementum.

OBJECTIVE: The aim of this study was to present the clinical outcome of endodontic therapy, used in the case of external resorption of the root of lateral maxillary incisor, which would ensure its preservation in the oral cavity.

MATERIAL AND METHOD: The case presented is external resorption of the root of the lateral maxillary right incisor (12), in a girl aged sixteen, diagnosed 8 years after injury. The diagnosis was made on the bases of the X-ray analysis and clinical status. After the standard endodontic procedure, the apical part of the root canal was filled with MTA, while standard sealer paste, and gutta-percha points were used for the rest of the canal obturation.

RESULT: A six-month control X-ray proved that there was no progress in resorption processes.

CONCLUSION: The success of the therapy of external resorption of the tooth root depends on several factors, especially, on the timely diagnosis and properly performed processing and obturation of the dental canal system. We concluded that MTA could play a significant role in long-term preservation of the teeth with external root resorption.

PP – 97**THE EFFECTIVENES AND IMPORTANCE OF TOPICAL FLUORIDATION IN STOPPING EARLY CHILDHOOD CARIES- CASE REPORT****Dženana Ždralović Karabeg*****HEALTH CARE CENTER BUGOJNO***

INTRODUCTION: Early childhood caries (ECC) refers to the presence of one or more carious lesions in deciduous teeth or missing teeth as a result of caries in children until the age of three. Factors for the development of the disease are inadequate oral hygiene and improper eating habits.

CASE REPORT: Male, 1.5years (17 months), was brought to the Health Care Center, Dental department, accompanied by the mother. Clinical examination reveals changes on the vestibular surfaces of the central and lateral maxillary incisors in the form of yellow-white initial lesions. Mother states prolonged night breastfeeding. Oral hygiene satisfying. Topical fluoridation with fluoride varnish was performed (concentration 0.1%, 0.4ml), following the protocol. Treatment repeated every three months. Fluoride application via toothpaste (1000ppm) brushing twice a day. Advised to use CPP-ACP based paste as a coating on lesions. Discontinue breastfeeding and change diet.

After 15 months of treatment, clinical examination reveals a slight regression of lesions, hard on probing and arrested caries, with no further progression on the surfaces of the maxillary upper incisors.

DISCUSSION: Initial carious lesions can be successfully remineralized after application of appropriate remineralization agents. Also, the application of CPP-ACP paste increases the remineralizing effects of fluoride varnish and faster caries arrest.

CONCLUSION: ECC is a chronic, preventable disease that can be prevented using adequate measures.

Key words: ECC, topical fluoridation, CPP-ACP

PP – 98**SMOKING HABITS AMONGST STUDENTS**

Alma Konjhodžić, Irmina Tahmiščija, Emina Hafizović, Lajla Hasić-Branković, Aida Džanković

Faculty of Dental Medicine with Clinics Sarajevo

Smoking has been one of the major threats to social health in the past few decades. The problem is concerning, causing over eight million yearly deaths worldwide. The most famous way of tobacco consumption is burning (cigarettes) but there are other ways: waterpipe tobacco, pipe tobacco, smokeless tobacco products, etc. With the appearance of alternative smoking systems such as heated tobacco products, electronic nicotine delivery systems, and electronic non-nicotine delivery systems; came the prevalence of smokers in general. Some of these systems don't contain tobacco, however, they often have harmful or potentially harmful ingredients (flavors, glycerol, etc.). Cigarette smoke may cause cancer, cardiovascular and respiratory diseases, but we often forget about the changes and problems tobacco smoke causes to our oral health. Some of them are periodontal problems, mucosa changes, pigmentation, and demineralization of the enamel.

Our study aims to find out in which ways our targeted group consumes tobacco, whether they know the health risks tobacco consumption brings, and the ways it affects people in their environment.

The method we are using in our research is a questionnaire. Our research will help in creating a database of opinions and behaviors that will help dental professionals when dealing with a smoker patient. Therefore, dental professionals will have a better idea of how to advise and which measures to take when treating such patients.

PP – 99**HISTOMORPHOMETRIC ANALYSIS OF PULPAL RESPONSE TO PLASMA RICH FIBRIN IN DIRECT PULP CAPPING PROCEDURE**

Marijana Popović Bajić, Milica Jovanović-Medojević, Jelena Nešković, Neda Ninković, Slavoljub Živković

University of Belgrade, School of Dental Medicine

Background

Direct pulp capping procedure is a therapeutic application of a drug on exposed tooth pulp in order to ensure the closure of pulp chamber and allow healing process.

Aim

The aim of this study was to examine the histological effects of platelet rich fibrin (PRF) on exposed tooth pulp of a Vietnamese pig.

Materials and method

In the experimental group, the perforations were covered with PRF (which was obtained by centrifugation of 10 ml venous blood of the experimental animal) and the control with MTA® (Dentsply Tulsa Dental, Johnson City, TN, USA). The observational period was 30 days. A light microscope was used to analyze the presence of dentin bridge formation, tissue reorganization and inflammation. A histomorphometric analysis was performed to obtain the value of the volume density of the dentinal bridge and volume density of newly formed blood vessels.

Results

The presence of newly formed dentinal bridge was observed in all samples. Study showed a statistically significant difference in morphological reorganization of pulp tissue and inflammatory response of the pulp between the tested materials ($p = 0.003$). The presence of odontoblast like cells and signs of neoangiogenesis were observed in PRF and MTA group. There was no statistically significant difference in the average volume density of the newly formed dentinal bridge and blood vessels in both groups.

Conclusion

Histological analysis indicated a favorable therapeutic effect of PRF in direct pulp capping of Vietnamese pigs.

PP – 100**FREQUENCY OF PRIMARY AND SECONDARY NARROWNESS, PSYCHOSOCIAL ASPECTS**

Dalibor Kraljević¹, Asja Korjenic², Vildana Dzemic³, Alisa Tiro, Belma Meskovic

¹*Private practice "Dr.Kraljevic";* ²*Private practice"Dr Asja Korjenic";* ³*Faculty of Dentistry*

Background: Irregularity of dental arches is characterized by a lack of space in the dental arch, which is also the biggest orthodontic irregularity. Tooth compaction can be found in all three classes according to Angle. The most well-known classification of tooth narrowness is based on Van der Linden's theory, which is based on the time of onset and etiology. We can differentiate between primary, secondary, and tertiary narrowness. A combination of primary and secondary narrowness is often present, and some authors associate tertiary narrowness with cases of patients who had previously confirmed primary narrowness.

Aim of the research: To determine the prevalence of primary and secondary narrowness in patients aged 7-22, with a primary focus on the male to female ratio in correlation to the statistics of the general population.

Methods and materials: The research was conducted with an insight to the archive and model at the Faculty of Dentistry along with clinics of the University of Sarajevo, the Department, and the Clinic of Orthodontics.

The study included male and female subjects with an average age of 14.5 years, the research period included three consecutive months, and all subjects with diagnoses of this study who came to the clinic.

Results: The results of this study show differences in perception and need for

PP – 101**RELATION AMONG ORAL HEALTH AND SOCIO-DEMOGRAPHIC CHARACTERISTICS AT GERIATRIC DENTURE WEARERS IN MACEDONIA**

Natasha Stavreva², Mirjana Markovska Arsovska¹, Budima Pejkovska Shapaska², Natasha Tosheska Spasova³, Vesna Ambarkova⁴

¹*Faculty of Dentistry Skopje, Department of Oral Surgery;* ²*Faculty of Dentistry Skopje, Department of Prosthodontics;* ³*Faculty of Dentistry Skopje, Department of Orthodontics;* ⁴*Faculty of Dentistry Skopje, Department of Pediatric and Preventive Dentistry;*

Introduction. Health is main component of quality of life, while the oral health is component of general health. The socio-demographic characteristics for epidemiological studies are important factors for perception of oral health and quality of life. Purpose of this study was evaluation of the quality of life at geriatric patients with built-in oral prosthetic dentures with different type of edentulism depending on affiliation, level of education and place of living. **Materials and methods.** The survey was a prospective transversal epidemiological study among 165 institutionally sheltered patients at Gerontology Institute (inspected group – IG) and 170 patients from the dental specialist clinics (control group CG) at age 65 and older. Geriatric Oral Health Assessment Index (GOHAI indicator) was used for obtaining the epidemiological data from the geriatric patients. Chi-square test, t-test, Anova-Manova analysis were used for testing the significance of the differences between the variables, where the values for $p < 0,05$ were statistically significant.

Results and discussion. Patients with upper and lower total dentures dominated (43,6% vs. 26,5%). The highest GOHAI score had the other ethnics of IC (32,08) and Romani-Gypsies of IG (31,00), while the lowest was at the Albanians of CG (25,91). Highest value of 30,15 had the IG of patients living in urban areas.

Conclusion. Quality of life and oral health at geriatric patients are at unsatisfactory level, with significant influence of the place of living and insignificant influence of the ethnic affiliation and level of education.

Kew words: GOHAI indicator, oral health, ethnic, education, place of living

PP – 102**PREVALENCE OF TORUS MANDIBULARIS IN YOUNG HEALTHY DENTATE ADULTS****Dzenad Ganjola***JZU KCCG***Purpose**

Prevalence of torus mandibularis (TM) in young adult patients can have various adverse effects on oral and occlusal states in middle-age patients. This study was designed to determine the association between TM status and oral and occlusal states in young healthy dental adults.

Materials and Methods

This was a cross-sectional study; the sample population included students at University of Montenegro (Podgorica) who participated for practical education. The predictor variables in this study included oral symptoms (temporo-mandibular joint noise, tooth clenching and grinding, buccal mucosa ridging, dental attrition, and tongue habit), oral anatomy (occlusal vertical dimension), and oral function (average occlusal pressure, occlusal contact area, and maximum voluntary tongue pressure). The outcome variable was TM status (present or absent). Additional variables were demographic in nature and included age, number of residual teeth, body weight, and gender. These variables were compared among participants with and without TM using univariate analysis and multiple logistic regression analysis.

Results

Of 156 participants included in the study, 50% were men and 50% were women. The mean age was 20 ± 5 years. TM was present in 89 (57%). Multiple logistic regression analysis showed that TM status was associated with dental attrition and occlusal contact area.

Conclusions

This study showed that TM was present in more than half the young healthy dental participants and was closely associated with dental attrition and occlusal contact area. This study will provide readers with useful information to help prevent the development of TM before middle age.

PP – 103**BONE REGENERATION UTILIZING A RESORPTIVE HYDROXY-APATITE-BASED BONE SUBSTITUTE COATED WITH POLY-LACTIDE-CO-GLYCOLIDE AND POLY-ETHYLENE-IMINE FOR BONE SCULL DEFECT**

Sanja Milutinović-Smiljanić¹, Vladimir Biočanin², Vesna Danilović¹, Veljko Ilić¹, Đorđe Antonijević¹

¹*University of Belgrade School of Dental Medicine;* ²*Faculty of Dentistry, University of Business Academy;*

Background/Aim. The use of bone regenerative biomaterials based on hydroxyapatite (HAP) is a longstanding area of interest. Here we aimed to investigate the osteoregenerative effect of poly-lactide-co-glycolide (PLGA) and poly-ethylene-imine (PEI) as coatings for hydroxyapatite (HAP) bone carrier in a rabbit's calvarial defect; also, to determine the level of host tissue inflammatory response. Methods. In 18 skeletal matured rabbit's calvarial defects (6 mm in diameter) were filled with one of the following materials: PLGA coated HAP (HAP+PLGA), PEI coated HAP (HAP+PEI), and bovine HAP – Bio-Oss (positive control). Negative control were unfilled defects. The animals were sacrificed 3, 6 and 9 weeks after implantation. The formation of the new bone and the inflammatory response of the host were examined by histological and histomorphometric analysis. Results. The newly formed bone ratio 6 weeks following the implantation was 3 times higher in the PLGA than in PEI coated group (4.3 ± 0.7 % vs. 1.4 ± 0.3 %, respectively). Similarly, the rate of mineralized bone at 9 weeks cut-off was almost 2 times higher in HAP+PLGA comparing to HAP+PEI group (28 ± 4 % vs. 16.9 ± 0.8 %, respectively). In all specimens decreasing tendency of minimal inflammatory reaction has been noted Conclusion. PLGA has performed greater coating potential comparing to PEI with regard to osteogenesis improvement in bone reconstructive surgery does.

Key words: bone reconstruction; calvarial defect; hydroxyapatite; poly-lactide-co-glycolide; poly-ethylene-imine.

PP – 104**CBCT ANALYSIS OF MAXILLARY SINUS (ANATOMY AND PATHOLOGY)**

Naida Hadžiabdić, Azra Imamović

Faculty of Dental Medicine, University of Sarajevo

The present study aimed to investigate the frequency of anatomical variations and maxillary sinus pathology of Bosnia and Herzegovina population. Among anatomic variations, we were dealing with dimensions of the maxillary sinus. Furthermore, we were interested in determining the relationship of dental status with maxillary sinus volume. Then, we measured the proximity of posterior maxillary teeth to the maxillary sinus floor (MSF). We also established dimensions and morphology of Schneiderian membrane, frequency of sinus septa and Haller cells, and recorded the most common pathological findings. This retrospective study included 200 patients. The inclusion criterion of each CBCT scan was the presence of two complete maxillary sinuses; the osseous borders of both sinuses had to be entirely visible. Images that showed maxillary implants, surgical procedures at posterior maxilla were excluded. CBCT scans were taken by two Dentsply Sirona machines and we used Sidexis 4, implant planning software for image analysis.

Index name

A

Abdullah Kalaycı 164
Abdulsamed Maden 116
Abdulsamet Tanik 145
Abdulsamet Tanik 143
Adi Salihagić 259
Ahmet Aktı 164
Ahmet Fatih Kocaer 114
Ahmet Yagci 82, 172, 227, 276
Aida Džanković 108, 110, 285
Aida Hafizovic 215
Aida Selmanagic 194
Ajla Selimović 229
Ajshe Rexhep 261
Aleksandar Kovacevski 132
Aleksandar Vasić 221
Aleksandra Maletin 186
Aleksandra Prokic 195
Aleksandra Žuža 91
Alice Arina Ciocan Pendefunda 105, 107
Alisa Tiro 197, 208, 287
Aliye Tuğçe Gürcan 170
Alketa Qafmolla 193
Alma Kamber-Ćesir 222
Alma Kantardžić 135
Alma Konjhodžić 108, 110, 219, 282, 285
Alma Mušanović 190
Amela Đonlagić 222
Amela Sofić 226
Amella Cana 245
Amila Balic 207
Amina Željko 156
Amra Ahmić 190, 210
Amra Gusinjac Džanković 197
Ana Pocevska-Panova 167
Ana Pucar 180
Ana Radeska-Panovski 250

Anastasia Dermata 198
Andjelka Mladenovic 212, 283
Andreas Barbetseas 88
Andrej Jovanovski 134
Aneta Mijoska 126, 132, 134, 136, 147, 150, 158, 220, 223, 224, 225
Aneta Mijovska 249
Anis Thodhorjani 168
Anita Bajsman 210
Anka Kvesić Jurišić 259
Ankica Miljković 243
Anna Wasiewicz 57
Antonijević Đorđe 81, 157, 272, 290
Apostolska Elencevska S 278
Arif Bolaca 152
Arion Xhemali 193
Aristidis Arhakis 198
Arma Muharemovic 191
Asja Korjenic 287
Aslı Ataseven 164
Atina Bekan 213
Aurora Isufi 173
Ayse Ceylan Ilhan 175
Ayşe Koçak 148, 231
Ayşenur Altuğ Yildirim 141
Azra Imamović 291
Azra Jeleskovic 194

B

Babačić Rafeta 202
Babek Jafarli 166
Bahar Elter 120
Bahar Elter Tolay 205
Banucicek Kandemir 124
Banucicek Kandemir Ipek Acikbas 122
Banu Çiçek Tez 247
Banu Çiçek Tez 248
Basak Kiziltan Eliacik 247
Başak Kiziltan Eliaçık 248
Belkisa Hodžić 232
Belma Meskovic 287
Belma Mešković 197
Bernard Janković 86

Betül Karagür 154
Bilge Akarca 165
Biljana Dzipunova 167, 261
Biljana Evrosimovska 118, 136
Biljana Koseva 132
Biljana Nikolić 262
Blagoja Dashtevski 225
Blagoja Dastevski 249
Boiko Bonev 265
Bojana Davidović 263, 264
Bojana Milekic 186
Bojan Dželetović 87, 236, 238, 239, 240, 241, 242, 243, 244, 246, 253, 257, 258, 268, 270
Bojan Jelić 160
Branka Stanisic 187
Bruno Nikolovski 118, 158, 159, 250
Budima Pejkovska Shahpaska 288
Burcu Bal 179
Burcu Diker 120
Burcu Kanpaltı 274
Busra Kasikoglu 145
Büşra Kaya Taştan 149

C

Cagatay Cakar 203
Cansu Dagdelen Ahisha 121
Cemile Kedici Alp 121
Cena Dimova 118, 159
Cenker Küçükeşmen 149
Cennet Elçin Sağirkaya 148, 153
Ceyhun Canpolat 78
Çiğdem Küçükeşmen 149, 154
Cosmin Bida 106
Cvetanka Bajraktarova Misevska 225

D

Dalia Mudrić Đurković 197
Dalibor Kraljević 287
Damir Duratbegović 174
Dana Gabriela Budala 106, 107
Daniela Djurovic Koprivica 186
Daniela Srbinoska 126, 147, 150, 220
Daniel Hellmann 59

Danijela Subotic 184
Danilo Pavlović 244
Danimir Jevremović 94
Danka Milosavljević 262
Dan Nicolae Bosinceanu 105, 106
Dario Puljić 210
Darko Veljanovski 158
Dea Krstičević 217
Dejan Markovic 212, 266, 283
Dejan Marković 221
Dejan Todorovski 224
Denis Kadaifciu 168
Deniz Basaran 255
Derya Ceyhan 177
Dilek Erdem 280
dnan Šehić 226
Doğu Ömür Dede 231
Dominika Slavkovska 223, 224
Doriana Agop-Forna 98, 99, 131
Dragana Rakasevic 266
Dragana Rakasević 127
Dragana Rakašević 80
Dragan Ilić 157, 272
Dragan Ivanović 264
Dragan Petrovski 111, 192
Drago Jelovac 180
Dragos Ioan Virvescu 105, 107
Dujic Tarik 234
Duygu Kaymak 130
Džanković Aida 279
Džejma Suljić Hujić 200
Dzejran Mocevic 194
Džemidžić Vildana 201, 202
Dzenad Ganjola 289
Dženana Ždralović Karabeg 284

E

Ebru Tirali 61
Ebru Topcuoglu 276
Ece Eroğlu 153
Ece Ucar 163
Edina Habibović 208

Edina Lazovic 207
Edina Lazović 229
Edit Xhajanka 211
Elena Radeska 250
Elif Altun 129
Elif Ozyurek 123
Elif Sifil 255
Elizabeta Gjorgievska 250
Elma Katana 113
Elmedin Bajrić 113
Ema Krdžović 178
Emel Arslan 256
Emilija Bajraktarova Valjakova 225
Emilija Kostadinovska 278
Emina Čengić 156, 174
Emina Hafizović 285
Emir Boškailo 93
Endrit Paparisto 211
Enes Pasic 182, 191, 215
Enes Pašić 140, 200
Enita Nakas 104
Ercan Durmus 164
Erdem Karabulut 112
Eriselda Simoni 168
Erkut Kahramanoğlu 142
Ersan Çeliik 230

F

Faris Fočo 176
Ferhan Eğilmez 163
Ferija Sali 220
Ferruh Semir Smail 175
Figen Öngöz Dede 231
Filiz Yagci 196
Florinel Cosmin Bida 105, 107
Francesco Inchingolo 62
Franz Sebastian Schwindling 63
Fuad Julardžija 226
Fusun Yaşar 128, 129, 130

G

Gianna Dipalma 62

Gokcenur Gokce Kara 119
Gokce Ozcan 177
Gokhan Coban 137
Gökhan Gurses 164
Gordana Kovacevska 126, 132, 220
Gozde Gur 280
Gulce Ozturk 138
Gulden Karabiber 114
Gulsum Ceylan 151
Gurcag Gur 203, 281
Gurkan Gur 203

H

Hamdi Sukur Kilic 122
Haris Šegalo 282
Hasan Can Boran 230
Hasić- Branković Lajla 279
Hilal Yüksel Ak 165
Huseyin Emir Yuzbasioglu 175
Husniye Gumus 138

I

Ilić Dragan 81
Ilić Veljko 81
Ilijana Muratovska 167, 249
Indira Jahic 191
Indira Mujic Jahic 182
Ines Savić Kosanović 259
Ioanna Arvanitopoulou 198
Irena Mladenović 139, 155
Irmina Tahmiščija 108, 110, 285
Isaak Trajković 254
Işıl Çekiç Nagaş 163
Işıl Turp 166
Ivana Milanović 238, 239, 258, 268, 269
Ivan Arsic 228
Ivan Tanatarec 126
Ivica Todorović 241
Ivona Kovacevska 252
Izim Turker 175

J

Jasmina Durek Mlaćo 208
Jasmina Mlaćo Durek 190
Jasmin Habibović 208
Jasminka Andjelic 188
Jasna Karakaš Zukić 176
Jasna Petrovska 111, 192
Jasna Simonoska 220
Jasna Simonovska 250
Jelena Elez 235
Jelena Krunic 155
Jelena Krunić 139, 235
Jelena Lečić 263, 264
Jelena Mandic 214
Jelena Mandić 195
Jelena Marinkovic 266
Jelena Nešković 233, 253, 286
Jelena Vučetić 240
Jelena Vučković 270
Jeleskovic Azra 204, 234
Jelesković Azra 201
Jetmire Alimani Jakupi 245
Jovana Hrisa Samardžija 263, 264
Jovana Prijic 214
Jovana Stasic 269
Jovan Markovic 228, 266
Jovan Vojinović 96
Jugoslav Ilić 178
Julijana Jovanović 246

K

Kalender Selma 204
Karić Sanjin 202
Katarina Beljić Ivanović 178
Katarina Radović 236
Katerina Zlatanovska 252
Kemal Ozgur Demiralp 116
Kenan Demirovic 104
Kenan Demirović 208
Kenan Ferati 74
Kevser Dinç 128
Kivanç Yamanel 112

Konjhodžić Alma 279
Korać Samra 279
Kovacevska Ivona 251
Krasimir Tsokov 265
Kubra Erdem 273

L

Lajla Hasić Branković 108
Lajla Hasić-Branković 110, 219, 285
Lamija Rustempašić 282
Lejla Kazazić 190
Lejla Redzepagic-Vrazalica 194
Lejla Šaćić Selmanović 113
Lejla Selmanović 156, 174
Leyla Cime Akbaydogan 123, 125
Leyla Kerimova 112
Lidija Praščević 242
Lindihana Emini 245
Lindita Zendeli Bedjeti 237
Lippo Veli Juhana Lassila 163
Ljiljana Marković 271
Ljubo Marion 134
Longurova Natasha 251
Lorenza Donea 99

M

Maja Delic 184
Maja Ležaja Zebić 239, 242, 244, 246
Malicbegovic Dea 204
Manojlo Janković 238
Maria Bolat 106
Marijana Popović Bajić 233, 286
Marijana Popović-Bajić 253
Marija Simoncheska 223, 224
Marina Latkovic 269
Marjan Petkov 136, 249
Mehmet Akin 115, 125, 169
Mehmet Ali Yavan 102, 146
Mehtap Koparal 146
Melisa Dalifi 269
Meltem Bakkal 255
Meltem Karahan 247, 248

Menno Arkesteijn 87
Merima Balavac-Orlic 215
Meris Jušić 226
Merita Bardhoshi 168
Merve Bayram 162
Merve Cingoz 144
Merve Nur Eglenen 117
Merve Yar 116
Metin Calisir 144
Mia Hodžić 200
Michael Korsch 65
Mihael Stanojevic 155
Mihael Stanojević 217, 218
Mihajlo Petrovski 189
Milan Martinovic 71
Mila Šupic 195
Milica Jeremic Knezevic 186
Milica Jovanović-Medojević 233, 286
Milka Bajic 187
Miloš Milošević 254
Mimoza Sulejmani 261
Mina Medojevic 269
Mine Betül Üçtaşlı 141
Mine Helvacıoğlu Özkardeş 142
Minja Miličić Lazić 270
Mirjana Djurickovic 183
Mirjana Gojkov 191
Mirjana Gojkov Vukelic 182
Mirjana Gojkov-Vukelic 215
Mirjana Ivanovic 195
Mirjana Markovska Arsovska 288
Mirjana Popovska 237
Miroslav Lučić 217, 218
Mladen Milosavljevic 187
Mladen Milosavljević 275
Mucahid Yildirim 125
Muhamed Ajanovic 215
Muhamed Ajanović 222
Mujić-Jahić Indira 204
Muminović Amra 202
Munir Tolga Yucel 122, 124

Murat Eruz 227
Musanovic Alma 234
Mustafa Borga Donmez 124

N

Nada Tomanović 180
Naida Hadziabdic 109, 207
Naida Hadžiabdić 229, 291
Natasa Pejdic 266
Nataša Pejčić Barać 80, 127, 221
Natasa Toseska-Spasova 261
Natasa Tosevska 167
Natasha Longurova 252
Natasha Stavreva 150, 225, 288
Natasha Tosheska Spasova 288
Neada Hysenaj 211
Neda Ninković 236, 254, 286
Nemanja Marinkovic 228
Nenad Nedeljkovic 228
Neslihan Arhun 112
Nihat Akbulut 116
Nikola Stojanović 139, 235
Nilüfer Üstün 171
Nina Dimitrijević Jovanović 80, 127, 221
Nina Marković 113, 156, 174
Nina Ristić 258
Nizami Hashimli 82, 172
Norina Forna 98, 99, 131
Norin Forna 98, 99, 131
Nukić Velida 201

O

Ognjenka Janjic Pavlovic, 155
Olivera Govedarica 155
Olivera Srbinovska 167
Oliver Dimitrovski 158
Ömer Çellik 206
Osman Yildiz 82, 172
Ozge Doganay 274
Ozge Uslu-Akcam 103
Ozgun Yusuf Ozyilmaz 273, 274
Özlem Kara 256

P

Pantelis Kouros 72
Papakoca Gordana 189
Papakoca Kiro 189
Paula Perlea 73
Pekka Kalevi Vallittu 163
Pinar Kinay Taran 165
Predrag Jovičić 89
Predrag Nikolić 275
Proseva Ljubica 189

R

RADE D. PARAVINA 66
Ramazan Bulut 153
Ramazan Isufi 173
Redžepagic-Vrazalica Lejla 204, 234
Redžepagić-Vražalica Lejla 201
Renato Isufi 168, 173
Rendgova V 278
Rusmir Arnautović 219
Ružica Lukić 263

S

Salim Zukić 176
Samra Korać 108, 110, 219, 282
Sanela Arslanagić 200
Sanela Strujić-Porović 222
Sanja Hadzic 182, 191
Sanja Hadžić, 200
Sanja Matić Petrović 180
Sanja Milutinović-Smiljanić 81, 157, 272, 290
Sanja Panchevska 134
Sarakinova O 278
Saša Dabić 139
Sasho Jovanovski 134, 150, 223, 224
Saso Jovanovski 136
Savas Sagmak 206
Selma Alić-Drina 222
Selma Jakupović 210, 226
Selma Zukić 190, 210
Sena Balkiz 231
Senka Serhatlić 113, 156, 174

Şerife Özdemir 165
Seval Bayrak 116
Sevda Miray Soydaş Smail 142
Sevdi Rexhep 261
Sevkan Ozkan 203
Simona Muratovska 167
Sina Uckan 64
Slavoljub Tomić 139, 235
Slavoljub Živković 233, 286
Slobodan Jovanović 257
Snezana Radisic 277
Sofia Sotiropoulou 198
Soner Şişmanoğlu 170
Sonja Rogoleva Gjurovski 118, 159
Sorin Uram-Tuculescu 67
Spasovska Gjorgovska Ana 237
Spiro Spasovski 237
Stanislav Nenov 265
Stojan Petrovski 111, 192
Sukriye Gizem Ceylan 146
Svetlana Antić 240, 241, 243, 257
Svjetlana Janković 263, 264

T

Tahmiščija Irmına 279
Tamara Perić 213
Taner Ozturk 137, 227, 276
Tanja Ivanović 235
Tanja Negovanovic 212, 283
Tanja Radenkov Medenica 221
Tatjana Puskar 186
Tatjana Savić-Stanković 254
Terzieva-Petrovska Olivera 189
Tiro Alisa 201, 202
Toneva Stojmenova Verica 251
Topoliceanu Claudiu 98
Tugce Esra Gunes 115, 169
Tunahan Mustafa Ceylan 143

U

Uros Tomić 180

V

Vancho Spirov 158
Vanco Spirov 150
Vanja Opačić Galić 254
Vanja Petrović 80, 127
Veljko Ilić 157, 272, 290
Vera Radojkova Nikolovska 118, 237
Verica Pavlic 182
Verica Toneva Stojmenova 252
Vesna Ambarkova 288
Vesna Daniloivić 272
Vesna Danilović 81, 157, 290
Vesna Jurukovska 249
Vesna Jurukovska Shotarovska 136, 223
Vesna Trpevska 126, 132, 147, 220
Viktor Kasapi 193
Vildana Dzemiđić 104, 287
Vildana Džemiđić 197
Violeta Pajic 187
Violeta Petrović 233
Vladimir Biočanin 290
Vojislav Komlenić 268

Y

Yagmur Ates 161
Yasemin Gundogdu 122
Yener Okutan 122, 124

Z

Zahirovic Ismar 234
Zana Jusufi 245
Željka Lovrić 259
Željko Milosavljević 262, 275
Zerina Hadžić 140
Zinovia Surlari 105, 106, 107
Zlatanovska Katerina 251
Zorana Stamenkovic 187, 228
Zoran Mandinic 195
Zoran Mandinić 80, 127
Zoran Vulicevic 76
Zuhal Kirzioglu 161



PEUGEOT 3008

Snaga i karakter!

Sve više i više stomatologa širom svijeta tvrdi:

I

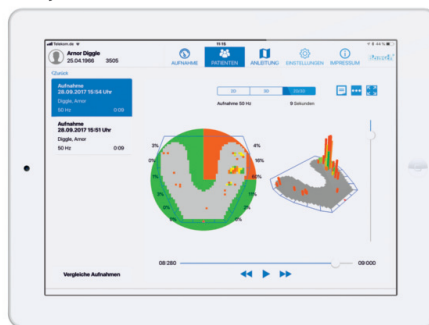


OccluSense®

Inovativni sistem za testiranje digitalne okluzije.

I vi se sada možete osloniti na nagrađivani OccluSense® sistem

- 60µm tanki, fleksibilni, jednokratni senzori pritiska, prikazuju statičnu i dinamičnu okluziju
- Prijenos podataka u OccluSense® iPad aplikaciju putem WiFi mreže
- Sloj crvene boje dodatno označava okluzalne kontakte na zubima vaših pacijenata
- Izbjegavajte neispravna opterećenja nadgradnje i uključene strukture implantata
- Otkrijte rane kontakte tijekom okluzalnih korekcija, kao i nepravilno opterećenje na laterotruzijskoj i mediotruzijskoj strani
- Dokumentirajte okluzijske promjene tokom ortodontskih tretmana
- Poboljšajte komunikaciju sa svojim pacijentima vizualizacijom okluzije



OccluSense®
by Bausch

WE MAKE OKCLUSION VISIBLE®

Dr. Jean Bausch GmbH & Co. KG | Oskar-Schindler-Straße 4 | 50769 Köln | Germany

Tel: +49-221-709360 | Fax: +49-221-70936-66 | info@occlusense.com | www.occlusense.com

Bausch and OccluSense are trademarks of Dr. Jean Bausch GmbH & Co. KG, registered in Germany and other countries.
Apple and iPad are trademarks of Apple Inc., registered in the U.S. and other countries.



on the basis of a decision
by the German Bundestag

Više informacija na:
www.occlusense.com
i na YouTube



Savremena terapija različitih vrsta bolova

DEXOMEN[®] 25

deksketoprofen trometamol



**Dostupan u svim apotekama,
bez ljekarskog recepta.**



**BERLIN-CHEMIE
MENARINI**

BERLIN-CHEMIE AG Predstavništvo za Bosnu i Hercegovinu | Hasana Brkića 2/II, Sarajevo - BiH
Tel.: +387 33 715 195 | Fax: +387 33 715 187 | E-mail: bosnia@berlin-chemie.com
www.berlin-chemie.com

Prije upotrebe pažljivo pročitati uputstvo o lijeku.
Za obavijesti o indikacijama, mjerama opreza i neželjenim dejstvima lijeka,
posavjetujte se sa ljekarom ili farmaceutom.

dental



Za potrebe vaših stomatoloških ordinacija i laboratorija nudimo:

- stomatološki materijal
- materijal za zubotehničke laboratorije
- instrumente i pribor
- dentalne legure
- sredstva za zaštitu i dezinfekciju

Dental SM d.o.o.
Branka Popovića 266
78000 Banja Luka
Bosnia and Herzegovina
Email: office@dental-sm.com
WWW: www.dental-sm.com
Tel/Fax: ++387 (0)51 370 724



RADIX d.o.o.
Distribucija dentalne opreme



25 GODINA SA VAMA



Od kad je osnovan Radix d.o.o. naš rad smo posvetili najsavremenijim dentalnim proizvodima.

Dugi niz godina saradnje sa brojnim stomatološkim ordinacijama rezultirao je enormnim iskustvom našeg osoblja koje je u prilici da Vam ponudi širok asortiman dentalnih proizvoda i opreme. Uz navedeno nudimo podršku i servis za sve što je potrebno jednoj modernoj stomatološkoj ordinaciji.

Kontaktirajte nas za potpunu ponudu proizvoda i usluga, te njihove cijene i dostupne količine.



036/ 726-243



radix.ba@gmail.com



www.radixdoo.ba



Donje Polje Do br. 1, 88400 Konjic

XXV Congress of the Balkan Stomatological Society

Partners:

Main sponsors:



BERLIN-CHEMIE
MENARINI



Golden sponsors:



Sponsors:



Exhibitors:



