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Developing of Dentistry

BaSS 2012

17th Congress of the Balkan Stomatological Society

Tirana, Albania
3rd - 6th of May 2012

Scientific Program of BaSS 2012

Proceedings of BaSS 2012

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Prof. Dr. Ruzhdie QAFMOLLA

President of the 17th Balkan Congress

Dear Colleagues,

It is a great honor for us to host the 17th Congress of the Balkan Stomatological Society**,** which will be held from 3-6 May 2012, in Tirana, at the Tirana International Hotel**,** and we express our greatest thanks to the Balkan Stomatological Assembly for entrusting this organization.

This Congress will be held under the patronage of the Albanian Prime Minster, Prof. Dr. Sali BERISHA. The Congress with the slogan "Development of Stomatology" has as main objective continuing professional education by providing all dental doctors with updated information on this discipline.

This event supports the BaSS vision and is in continuity with previous BaSS Congresses. It provides an opportunity for the Balkan dental community to discover the latest developments in diagnostics, disease management, and research, to discuss, to debate and to contribute to a strong Balkan organization and community.

The Congress will feature 22 plenary lectures to be held from internationally known experts in their fields, 128 oral presentations, and 220 poster presentations on cutting-edge trends in research and patients' management. Congress participants will experience a well-organized meeting with topical sessions. A large exhibition area will host different industrial dental companies.

As the meeting will be dedicated to continuing education, we think it will be particularly interesting for young colleagues, who can gather and learn new information that will provide approaches, if not solutions, to the challenging oral healthcare issues that arise in everyday practice.

I hope the meeting in Tirana will be of high scientific quality and will allow participants to exchange ideas and share a positive experience.

We look forward to welcoming you all to the beautiful city of Tirana.

Prof. Dr. Ruzhdie QAFMOLLA

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SCIENTIFIC PROGRAM OVERVIEW

Thursday May 3, 2012

09:00 16:00	Receiving and registration of the participants at the Tirana International Hotel
14:00	Opening of the Exhibition at the National History Museum
15:00 17:00	BaSS Council Meeting at the Tirana International Hotel, Bogdani Hall
18:00 20:00	Opening Ceremony at the National Theatre of Opera and Ballet
20:00	Welcome Reception Cocktail at the National History Museum Hall

Friday May 4, 2012

	Balsha Hall	Consortium Hall	Akernja Hall	Blu Hall	Bogdani Hall
	Plenary Sessions				
	Chair: SHARKOV Nikolai KONGO Pavli	Chair: BOSTANCI Hamid BARDHOSHI Esat	Chair: MINOVSKA Ana QAFMOLLA Ruzhdie		
08.30- 09.00	**Nikolai Ivanov SHARKOV** Assistant Professor, University of Sofia (Bulgaria) Invited Speaker	**Bozidar BRKOVIC** Associate Professor, University of Belgrade, School of Dental Medicine, *Clinic of Oral Surgery,* Serbia	**Nenad NEDELJIKOVIC** Assistant Professor, University of Belgrade, School of Dental Medicine, *Clinic of Orthodontics,* Serbia		
09:00 09:40	**ECONOMIDES Nikolaos** Assistant Professor, University of Thessaloniki (Greece) Invited Speaker *Endodontics*	**TÖZÜM Tolga** Associate Professor, Hacettepe University (Turkey) Invited Speaker *Oral Implantology*	**IMIRZALIOGLU Pervin** Professor, Başkent University (Turkey) Invited Speaker *Dental Materials*	Poster Presentations Chair: XHEMNICA Lindita PP: 1 - 35 *Conservative Dentistry*	
09:40 10:20	**GALLOTINI Livio** Professor, "La Sapienza" University (Italy) Invited Speaker *Endodontics*	**GIANNI Aldo** Professor, University of Milan (Italy) Invited Speaker *Maxillo-Facial Surgery*	**RUDOLF Rebeka** University of Maribor (Slovenia) Invited Speaker *Dental Materials*		
10:20 11:00	**VIRTANEN Jorma** Professor, University of Oulu (Finland) Invited Speaker *Community Dentistry*	**ISUFI Ramazan** Associate Professor, University of Tirana, (Albania) Invited Speaker *Maxillo-Facial Surgery*	**ÖZCAN Mutlu** Professor, University of Zurich (Switzerland) Invited Speaker *Fixed Prosthodontics*		
11:00 11:30	*Coffee Break*				
11:30 12.00 13.00 13:30	Oral Presentations Chair: BUDINA Rozarka BROVINA Diana OP: 1- 8 *Conservative Dentistry*	Oral Presentations Chair: ISUFI Ramazan ARPAK Nejat OP: 41- 48 *Oral and Maxillofacial Surgery*	Oral Presentations Chair: MULO Xhina KOIDIS Petro OP: 81- 88 *Orthodontics*	Poster Presentations Chair: DROBONIKU Etleva PP: 36 - 70 *Conservative Dentistry*	Deans'Meeting
13:30 14:30	*Lunch Break*				
14:30 16:30	Oral Presentations Chair: HYSI Dorjan STAMENKOVIC D OP: 9-16 *Conservative Dentistry*	Oral Presentations Chair: QENDRO Andis DALAMPIRAS Stelios OP: 49- 56 *Oral Implantology*	Oral Presentations Chair: XHAJANKA Edit GANIBEGOVIC M OP: 89- 96 *Prosthodontics*	Poster Presentations Chair: TOTI Çeljana PP: 109 - 130 *Orthodontics*	
16:30 17:00	*Coffee Break*				
17:00 19:00	Oral Presentations Chair: XHEMINCA Lindita NORINA Forna OP: 17- 24 *Conservative Dentistry*	Oral Presentations Chair: ALUSHI Adem SOLYALI Sami OP: 57- 64 *Periodontology*	Oral Presentations Chair: MARKOVIC TOTI Çeljana OP: 97-104 *Prosthodontics*	Poster Presentations Chair: MULO Xhina PP: 71 - 89 *Prosthodontics*	

PROGRAMME

Saturday May 5, 2012

<table>
<tr><td></td><td>Balsha Hall</td><td>Consortium Hall</td><td>Akernja Hall</td><td>Blu Hall</td><td>Bogdani Hall</td></tr>
<tr><td></td><td colspan="3">Plenary Sessions</td><td></td><td></td></tr>
<tr><td></td><td>Chair: GAVAZI Besnik
DROBONIKU Etleva</td><td>Chair: BARDHOSHI Merita
QENDRO Andis</td><td>Chair: KERAJ Fejzi
TOTI Celjana</td><td rowspan="4">Poster Presentations
Chair: XHAJANKA Edit
PP: 90 – 108
Prosthodontics</td><td rowspan="4">BaSS Council Meeting</td></tr>
<tr><td>08.30-
09.00</td><td></td><td></td><td>SCEPANOVIC Miodrag
Assistant Professor,
University of Belgrade,
School of Dental Medicine,
Clinic of Prosthodontics,
Serbia</td></tr>
<tr><td>09:00
09:40</td><td>GUZELDEMIR Esra Associate Professor, Kocaeli University (Turkey)
Invited Speaker
Special Needs Dentistry</td><td>ISUFI Ramazan
Associate Professor,University of Tirana (Albania)
Invited Speaker
Maxillo-Facial Surgery</td><td>DURAN VON ARX Jose
Professor,University of Barcelona (Spain)
Invited Speaker
Orthodontics</td></tr>
<tr><td>09:40
10:20</td><td>MURPHY Francis Assistant Professor, New York University (USA)
Invited Speaker
Oral Implantology</td><td>BERDICA Leart University of Tirana, (Albania)
Invited Speaker
Pathology</td><td>MANZO Paolo Associate Professor, University “Federico II” (Italy)
Invited Speaker
Orthodontics</td></tr>
<tr><td>10:20
11:00</td><td>ANIĆ Ivica Professor, University Hospital Center Zagreb (Croatia)
Invited Speaker
Conservative Dentistry</td><td>FILTCHEV Dimitar Assistant Professor, Faculty of Dentistry in Sofia (Bulgaria)
Invited Speaker
Laser dentistry</td><td>DURAN VON ARX Jose
Professor, University of Barcelona (Spain)
Invited Speaker
Orthodontics</td></tr>
<tr><td>11:00
11:30</td><td colspan="4">Coffee Break</td><td rowspan="8"></td></tr>
<tr><td>11:30
12:10</td><td rowspan="3">Oral Presentations
Chair: BROVINA Diana
HYSI Dorjan
OP: 25- 32
Conservative Dentistry</td><td>Chair: FILCHEV A
ISUFI Ramazan</td><td rowspan="3">Oral Presentations
Chair:DJENAD Ganiola
XHAJANKA Edit
OP: 105- 112
Oral and Maxillofacial Radiology</td><td rowspan="3">Poster Presentations
Chair: QENDRO Andis
PP: 131 - 163
Oral and Maxillofacial Surgery</td></tr>
<tr><td>12:10
12:50</td><td>BARDHOSHI Merita
University of Tirana, (Albania)
Invited speaker
Laser dentistry</td></tr>
<tr><td>12:50
13:30</td><td>YOON Suk-Ja
Associate Professor,
Chonnam National University
(South Korea)
Invited Speaker
Oral and Maxillofacial Radiology</td></tr>
<tr><td>13:30
14:30</td><td colspan="4">Lunch Break</td></tr>
<tr><td>14:30
16:30</td><td>Oral Presentations
Chair: XHEMINCA Lindita
DROBONIKU Etleva
OP: 33-40
Conservative Dentistry</td><td>Oral Presentations
Chair: BUDINA Rozarka
KELMENDI Manola
OP: 65- 72
Oral and Maxillofacial Surgery</td><td>Oral Presentations
Chair: TOTI Çeljana
AKKAYA A
OP: 113-120
Orthodontics/Prostho-dontics</td><td>Poster Presentations
Chair: BARDHOSHI Esat
PP: 164 - 195
Oral Implantology/Oral Medicine/Periodontol-ogy</td></tr>
<tr><td>16:30
17:00</td><td colspan="4">Coffee Break</td></tr>
<tr><td>17:00
19:00</td><td>BaSS Awards Ceremony

Closing remarks</td><td>Oral Presentations
Chair: ALUSHI Adem
SOLYALI S
OP: 73- 80
Periodontology</td><td>Oral Presentations
Chair: GAVAZI Besnik
BARDHOSHI Esat
OP: 121-127
Community Dentistry/ Other</td><td>Poster Presentations
Chair: BARDHOSHI Merita
PP: 196 – 218
Oral and Maxillofacial Radiology/ Other</td></tr>
<tr><td>20:.30</td><td colspan="4">Gala Dinner at Xibraku Restaurant</td><td></td></tr>
</table>

INVITED SPEAKERS PROFILES

ECONOMIDES Nikolaos, DDS, MSc, PhD
- Greece -

The Dr. Economides is Assistant Professor at the Department of Endodontology, School of Dentistry, Aristotle University of Thessaloniki, Greece. He received his Dental Degree (D.D.S.) and Doctorate Degree (Ph.D.) from the University of Thessaloniki, Greece, and his Master of Sciences (M.Sc.) from University of Manchester (Turner Dental School), United Kingdom. He has published more than 60 scientific articles in Greek and International Scientific Journals. His articles are cited in more than 600 papers worldwide. He has presented more than 80 lectures in National and International Dental Congresses in the area of Endodontology. He is a councilor of the Balkan Stomatological Society (Greek delegation).

Prof. GALLOTINI Livio, DDS, PhD
- Italy -

Dr. Gallottini Livio was graduated in Medicine at the “La Sapienza” University, in Rome, Italy in 1992 and later in Dentistry in 1996. He received his Doctoral Degree in 2001. He is a specialist in Endodontics and Aesthetic Restorative Dentistry. Actually he is a Professor and director of the Master Course in Endodontics at the Faculty of Medicine and Dentistry, “La Sapienza” University, in Rome, as well as section head at the “Umberto I” Clinic in Rome. He has published over a hundred research and professional papers and presented several presentations in national and international meetings. He is the president of the “Società Italiana di Odontoiatria Conservatrice” and member of the European Society of Endodontology, Società Italiana di Endodonzia and the International Association for Dental Research.

Prof. VIRTANEN Jorma, DDS, PhD
- Finland -

Dr. Virtanen Jorma is Professor of Community Dentistry at the University of Oulu, Finland
And Adj. Professor of Public Health, University of Helsinki

EDUCATION:
DDS, PhD, MSc Public Health, Specialist Dentist in Dental Public Health,
Adjunct Professor in Oral Public Health, Special competence in Medical education,
Adjunct Professor in Public Health

PUBLICATIONS:
Publications in international scientific journals:
Dental epidemiology, Dental education, Dental public health, Health service research,
ICT, Preventive dentistry, Public health

SUPERVISOR FOR DOCTORAL THESES
Supervisor and reviewer of several doctoral theses (PhD)

GUZEL DEMIR Esra, DDS, PhD
- Turkey -

Dr. Guzeldemir is Chair of the Department of Periodontology and Associate Professor of Periodontology at Kocaeli University, Kocaeli, Turkey. She received her DDS degree at Hacettepe University in 1998, PhD degree at Ankara University in 2005, became specialist in Periodontology at Ankara University in 2005, and Associate Professor of Periodontology in 2011. She worked as Research Associate in Boston University Goldman School of Dental Medicine, The Division of Periodontology and Oral Biology, Boston, MA, USA in 2004 – 2005, and University of Louisville School of Dentistry, The Oral Health and Systemic Disease Research Group, Louisville, KY, USA in 2007. Dr. Guzeldemir has authored and highly cited more than 30 articles in peer-reviewed journals, and presented more than 30 presentations in national and international meetings. She is an Editorial Board Member of Turkiye Klinikleri Journal of Dental Sciences, Indian Journal of Stomatology and World Journal of Nephrology, and ad-hoc reviewer of many peer-reviewed journals. Her researches were awarded with national and international prizes. Her areas of research include genetics of periodontal diseases, the relationship between periodontal diseases and systemic health and studies related to oral health related quality of life of patients.

Prof. Dr. ANIĆ Ivica, PhD, DDS
- Croatia -

Dr. Anić graduated from University of Zagreb, School of Dental Medicine in 1984. He got his Master's degree in 1988, and finished his specialisation training (Dental and Oral Pathology with Parodontology) in 1992. He visited Department of Conservative Dentistry, United Dental and Medical School, St Thomas and St Guy's Hospital in London, UK in 1990 and had his PhD degree in 1991. In 1993, he was employed as research associate and assistant professor, as well as head of permanent training course organised by the postgraduate program of School of Dental Medicine, University of Zagreb. The same year, he started the subspecialisation course in endodontology at the Department of Endodontology, School of Dental Medicine, SHOWA University of Tokyo, Japan. He finished subspecialisation in 1994 and started teaching a postgraduate collegium in 1994. In 1996 he was elected associate professor at the School of Dental Medicine, University of Zagreb, and full time professor in 2000. He was Head of the Department from 2003 till 2009 and a vice dean for science since 2003- 2007. He is a current Head of Clinical Department of Dental Diseases, KBC Zagreb since 2003. He has published over a hundred research and professional papers, conference papers and published lectures.. He participated in different research projects. In 1996, he had a study visit to «Department of Endodontology and Cariology» School of Dentistry ACTA, University of Amsterdam and in 1998 to «Department of Endodontology» School of Dental Medicine, University of Florida, Gainsville. He has mentored numerous graduation theses and several master's and PhD theses. He has been a member of Croatian Medical Society since 1984, is an active member and was country representative in European Society of Endodontology, president of Croatian endodontic society from 2002, full member of Croatian Academy of Medical Science since 1997 and member of the International Association for Dental Research since 1995.

TÖZÜM Tolga Fikret, DDS, PhD
- Turkey -

Dr. Tözüm was graduated from Faculty of Dentistry, Gazi University, Ankara, Turkey in 1998. He started his Ph.D. program at Health Sciences Institute and also appointed as a graduate student at Department of Periodontology, Hacettepe University, Ankara, Turkey between 1998 and 2002. He continued his integrated Ph.D. program at the Center for Craniofacial Regeneration and Department of Periodontics/ Prevention/Geriatrics, The University of Michigan, Ann Arbor, Michigan, U.S.A. between 2001 and 2002 during his Ph.D. program. He also attended 'Misch Implant Institute Advanced Education Courses' during his stay at Michigan. In 2002, he was appointed as a clinical instructor at Department of Periodontology, Hacettepe University, Turkey and as an invited research investigator at the Center for Craniofacial Regeneration, The University of Michigan, U.S.A. He was appointed as an Assistant Professor between 2004 and 2006. He serves as a full time Associate Professor since 2006, and a consultant faculty member at post-

graduate periodontology about implant dentistry at Hacettepe University. He has been also appointed as 'Associate Dean' at the same university since January 2010. As well as his 61 scientific publications in international journals related to implant dentistry and periodontics, he is a co-author of a dental chapter about allograft applications in an international transplantation book of medicine. He has 53 presentations at international scientific meetings related to implant dentistry and periodontics. He is also continuing international scientific research projects including U.S.A., Spain, Saudi Arabia, Cyprus and Japan related to implant dentistry and periodontics. He is also invited to a charity organization in Kiev, Ukraine as an 'International Expert' by Ukrainian Oral Implantologists Association to perform live surgeries on patients entitled 'Quality of Life to our Parents' in 2011.
Dr. Tözüm lectured in many national and international meetings in periodontics and implant dentistry. He is a fellow member of International Congress of Oral Implantologists, an active member of American Academy of Osseointegration, diplomate and honorary member of Meffert Implant Institute (Component Society of International Congress of Oral Implantologists), member of European Federation of Periodontology, Turkish Society of Oral Implantology and Turkish Society of Periodontology. He currently serves as an international editorial board member in 'Clinical Implant Dentistry and Related Research', 'The Journal of Implant and Advanced Clinical Dentistry'and 'Journal of Contemporary Dental Practice, Associate Editor', and also he is in the advisory board of 'Journal of Dental Sciences' and 'Gülhane Medical Journal'. He also acts as ad-hoc reviewer in many international scientific peer-reviewed journals related to periodontics and implant dentistry. Dr. Tözüm focuses on the impact of implant stability (resonance frequency analysis and damping capacity assessment), alveolar bone turnover around implants, nitric oxide metabolism and peri-implant sulcus fluid pattern in immediately, early and conventionally loaded dental implants. As well as his in vitro and in vivo research, he is also interested in platform modified implants, and advanced implant dentistry and periodontal surgical applications in clinical practice.

Prof. GIANNÌ Aldo Bruno, MD
- Italy -

Dr. Aldo Gianni has graduated at the University of Milan, Medical School, with Summa Cum Laude as Doctor of Medicine (MD). He performed his postdoctoral training at the University of Milan, Residency in Maxillo-Facial Surgery. Since 2004, Dr. Gianni is a Full Professor and Head of the Residency in Maxillo-Facial Surgery at the University of Milan in Italy. He is also Head of the Department of Maxillo-Facial Surgery at the IRCSS Fondazione Ca' Granda Ospedale Maggiore Policlinico in Milan. Since 2003 he is an Adjunct Professor in Maxillo-Facial Surgery, at the University of Milan for the Plastic Surgery Residency Programs, the Ophthalmology Residency Programs, the Orthodontics Residency Programs, the Oral Surgery Residency Programs and the General Surgery Residency Programs. He is the Referee for Maxillo-Facial surgery and Oral surgery for the Italian program for medical continuous education (ECM). He has a special interest in Temporomandibular Surgical Pathology, Orthogathic surgery**,** Preprosthetic Surgery**,** Facial Amputation and Post-oncological reconstruction.

ISUFI Ramazan, PhD
- Albania -

Dr. Isufi was graduated in Dentistry at the University of Tirana, Albania, in 1980. He completed his specialist training in Maxillo-Facial Surgery at the University of Tirana, in 1993. He received his Doctorate Degree in 1999 from the same University. He has also received extensive training in Oral and Maxxilofacial Surgery in France, Germany and Ireland. In 1990, he was appointed as a lecturer at the Dentistry Department, Faculty of Medicine, University of Tirana. He serves as a full time Associate Professor of Oral and Maxillofacial Surgery since 2007 and as Head of the Oral and Maxillofacial Service at the University Hospital Center "Mother Teresa" in Tirana since 2005. He has presented several presentations and published numerous scientific papers in national and international journals. He has also co-authored several chapters and books in Oral and Maxillofacial Surgery,

BERDICA Leart, PhD
- Albania -

Dr. Berdica was graduated in Medicine at the University of Tirana, Albania, in 2000. He received his Master Degree and Doctorate Degree from the University of Tirana, Albania. In 2001, he had a study visit at the University of Bari, in Italy and than completed his specialist training in Pathology in 2007 at the University of Tirana. He is a project director for INTERREG III. He is actually a lecturer at the Pathology Department of Medicine Faculty, University of Tirana and a pathologist at the Pathology Department of University Hospital Center "Mother Teresa" and at the American Hospital in Tirana. He has a special interest in cancer immunohistopathology

FILTCHEV Dimitar
- Bulgaria -

Dr. Filtchev obtained his degree in dentistry at the Faculty of Dentistry in Sofia in 1998. Since 2000 he was appointed Assistant Professor at the Department of Prosthetic Dentistry in the same Faculty. In 2003 he acquired the postgraduate specialization in Prosthetic Dentistry. Specialization in Prosthetics, Faculty of Dentistry – Munster, Germany, in Implantology at the New York University, USA. He has attended a number of practical and theoretical courses in Implantology, Orthodontics and Esthetic Dentistry. Since 1998 he is running a private practice in Sofia, specialized in Implantology and Esthetic Dentistry. Dr. Filtchev has more then 20 publications in Scientific Journals, and participations as an invited speaker at many national and international congresses.

BARDHOSHI Merita, MD, PhD
- Albania -

Dr. Bardhoshi was graduated in Dentistry at the University of Tirana, Albania, in 1994. She completed her specialist training in Maxillo-Facial Surgery at the University of Tirana, in 2003. She received her Master Degree in 2004 and Doctorate Degree in 2011 from the same University. Dr. Bardhoshi has had a study visit at the University Hospital Center Galway, in Irlande and at the RWTH University, Aachen, in Germany. She has presented several presentations and published numerous scientific papers in national and international journals. She has a special interest in laser dentistry and is a member of Deutsche Gesellschaft Laser and of the World Federation Laser Dentistry. Since 2005, Dr. Bardhoshi is a lecturer at the Dentistry Department, Faculty of Medicine, University of Tirana and since 2008 she serves as an oral surgeon at the University Dental Clinic in Tirana.

YOON Suk-Ja, DDS, MSD, PhD
- South Korea -

Dr. Yoon was graduated from School of Dentistry, Chonnam National University, Gwangju, South Korea in 1993. In 1996, she was a Trainee of the Advanced Program of Oral and Maxillofacial Radiology, Graduate School of Dentistry, Osaka University, Osaka, Japan. She obtained her Doctoral Degree (PhD) from Graduate School of Dentistry, Chonnam National Univeristy, Gwangju, South Korea in 1999. During 2007-2009 she has been Visiting professor at the Department of Orthodontics, School of Dentistry, Case Western Reserve University, Cleveland, Ohio, USA. Presently she is an Associate Professor at the Department of Oral and Maxillofacial Radiology, School of Dentistry, Dental Science Research Institute, Chonnam National University, Gwangju, South Korea.

Prof. WOO Hyung, Ph.D
- South Korea -

Dr. Woo was graduated from the School of Dentistry, Kyung Hee University, in 1979. He obtained his Doctoral Degree at the same University in 1988. In 1993, he has been a visiting professor at the Tuebingen University, Germany. He is currently a Professor at the Department of Prosthodontics, School of Dentistry, Kyung Hee University and Director at the Kyung Hee University Dental Hospital. Dr. Woo is also the President of the Korea Dental Hospital Association.

Prof. IMIRZALIOGLU Pervin, PhD
- Turkey -

Dr. Imirzalıoglu was graduated from the Hacettepe University, Faculty of Dentistry, Turkey, in 1984 and obtained her Doctoral Degree at the Gazi University, Faculty of Dentistry, Department of Prosthodontics in 1991. She has been appointed Assistant Professor at the Başkent University Faculty of Dentistry, Department of Prosthodontics in 2000, Associate Professor at the same University in. 2006, and Professor in 2011. As from 2000, Prof. Imirzalıoglu is head of Prosthodontic Dentistry Departmant at Başkent University, Turkey. Prof.Imirzalıoglu is a member of the International College of Prosthodontists and Turkish Prosthodontics and Implantology Association. She has published several papers in peer-reviewed national and international journals and has presented several presentations in international and national conferences. Her research interests include fixed prosthodontics, TMJ, radiomorphometric indices, surface modifications.

RUDOLF Rebeka
- Serbia -

Rebeka Rudolf has received training at the University of Belgrade, Faculty of Mechanical Engineering, Serbia and at the RWTH Aachen, IME Metallurgische Prozesstechnik und Metallrecycling, Germany. She is permanently employed since 1993 at the University of Maribor, Faculty of Mechanical Engineering. In 2002, she became research assistant and in 2003 the assistant with PhD. In 2006 she has been employed in Zlatarna Celje as the research manager and as leader of the Research group of Zlatarna Celje. In 2009 she received the title scientific research collaborator- senior university teacher and now she is in procedure of becoming senior lecturer. She is also the leader of many Research and Applied projects, leader of Infrastructure project within the whole University of Maribor. Her main interests are in optical and electron microscopy, metallographic preparation of different materials, biomaterials, noble metal, production technology, and optimisation of industrial process.

Prof. MUTLU ÖZCAN, PhD
- Turkey -

Dr. Mutlu was graduated in Dentistry at the Marmara University, İstanbul, Turkey, in 1993. She received her Dr.med.dent degree at the Medical and Dental School of Cologne, Germany, in 1999. During 2001-2002 she has been invited as a visiting researcher at the University of Turku, Department of Prosthetic Dentistry and Biomaterials Research, in Finland. In 2002 she was appointed Assistant Professor and Researcher at the University of Groningen, Department of Dentistry and Dental Hygiene, The Netherlands and received a Doctorate in Medical Sciences (Ph.D) at the same University in 2003. In 2005 she was appointed Adjunct Professor and Research Associate and in 2007 Professor at the Clinical Dental Biomaterials (University Medical Center Groningen, Department of Dentistry and Dental Hygiene, The Netherlands).Since 2009 she is Professor and Head of Dental Materials Unit at the University of Zurich, Dental School, Zurich, Switzerland. Dr. Mutlu has authored more than 150 scientific articles in peer-reviewed journals, has given over 300 presentations at international scientific meetings, is a frequent lecturer at scientific meetings, receiver of several international awards and has held numerous continuing education courses in Europe. She serves also for the editorial boards of several scientific journals. She has Visiting Professor positions at various universities including São Paolo State University (Brazil), Federal University of Juiz de Fora (Brazil), University of Brno (Czech Republic), University of Izmir Katip Celebi University (Turkey) and University of Bologna (Italy).

Prof. DURAN VON ARX, Jose
- Spain -

Dr. Duran Von Arx is the Head of the Department of Orthodontics at the University of Barcelona, in Spain. He is also Director of the Master of Orthodontics of the University of Barcelona, Director of the Orthodontic Department of the Children´s Hospital of Barcelona, Director of the Orthodontic World Institute of Barcelona and of the Master of the Autonoma University of Barcelona. He is creator of the MFS philosophy and of the MFS Stimulotherapy therapy system and devices as well as of the MFS individualized brackets prescription. He has written a book for hygienists: «I am a tooth», a book for orthodontics: «Multifunction System; clinical atlas», and a book for general dentists: «Stimulotherapy in Orthodontics». He has given more than 500 courses all over the world and published over 200 scientific papers.

MANZO Paolo, DDS, MSOrthod, PhD
- Italy -

Dr. Manzo was graduated *cum laude* in dentistry at the University "Federico II", in Naples, Italy, in 1997. He has also completed his post-university studies and obtained his doctoral degree (PhD) in orthodontics at the same university. He is currently an associate Professor at the University "Federico II", in Naples. Dr.Manzo has presented several presentations in national and international courses and conferences and he is a receiver of several awards. Dr.Manzo has received a Certificate of Excellence from the Italian Board of Orthodontics. Dr.Manzo is a delegate of the Italian Dental Association and National Coordinator of the Group for Orthodontic Therapy. He has a special interest in straight wires techniques, self-ligating, functional therapy and maxillary expansion, etc.

Asst. Prof. Dr. NIKOLAI IVANOV SHARKOV
- Bulgaria -

1982 Graduated from Faculty of Stomatology (now Faculty of Dental Medicine), Medical University, Sofia – Master Degree in Dental Medicine.

Since 1989 Full time Asst. Prof. at the Department of Paediatric Dental Medicine, Faculty of Dental Medicine, Sofia.
Specialty in Paediatric Dental Medicine and in General Dental Medicine.
He has a Master degree in Buisness Administration, speciality - Health Management.

1989 Member of the Bulgarian Stomatological Scientific Association (BSSA).

1989-1992 Member of a team working on a WHO Community Demonstration Project in Bulgaria: "Caries Reducing Effect of an amino fluoride dentifrice in Children".

1992 Invited to study the Danish experience in community based oral health prevention by the Regional Office for Europe, WHO, Copenhagen; the School of Dentistry, University of Copenhagen. The study was made under the supervision of Prof. Poul Erik Petersen.

1994-2010 Appointed by the Minister of Health as a Working Consultant of a WHO Community Demonstration Project on The Implementation of Dental Caries Prevention in Children by Use of Fluoridated Milk.

1995 Active member of the European Academy of Paediatric Dentistry (E.A.P.D.).

1996 One of the six founders of the Balkan Stomatological Society (BaSS), which was registered in April 1996 in Thessaloniki, Greece.
Member of the Editorial Board of the Society's journal - Balkan Journal of Stomatology ISSN 1107 - 1141.

1999-2005 Vice President of Bulgarian Dental Association (BgDA)

2003 Research projects in Liverpool University, School of Dentistry and in Leeds Dental Institute, School of Dentistry with Prof. Jack Toumba and Prof. Monty Dougal.

2005-2011 President of Bulgarian Dental Association (BgDA).

since 2005 Member of the High Medical Council of the Ministry of Health.

2009 Bulgarian Government – the Bulgarian Council of Ministers adopted the proposed by Dr. Nikolai Sharkov and BgDA National Oral Health Preventive Programme for Children up to 18 Years of Age (NOHPPC).

2009 Chairman of the National Coordinating Council of the NOHPPC until now.

2009 Vice President of Balkan Stomatological Society (BaSS).

2009 Member of the Communication and Member Support Committee of FDI.

2009 Elected Director of CED of the Council of European Dentists (CED). CED is the advisory body of European Commission since 1961.

2010 Member of the European Association of Dental Public Health (EADPH).

2011 Vice President of Bulgarian Dental Association - Chairman of the Standing Committee for negotiation and contracting with the Bulgarian National Health Insurance Fund.

2011 President Elect of the Balkan Stomatological Society (BaSS)

2011 Vice-Chairman of the Communication and Member Support Committee of the World Dental Federation (FDI).

Dr. N. Sharkov is working on the problems of prevention of oral diseases, implementation of CPITN, social and psychological problems of oral prevention, prevention of dental caries by use of fluorides, biochemistry of fluorides etc. from the very beginning of his career. Over thirty scientific publications. Dr. N. Sharkov is giving lectures in Bulgaria and abroad.

BOŽIDAR BRKOVIĆ, DDM, Ms, PhD
- Serbia -

Dr. Božidar Brković is an Associate Professor at the Clinic of Oral Surgery, School of Dental Medicine University of Belgrade, Serbia, where he has been employed since 1999.
His MSc was defended in 2003, while PhD Thesis was obtained in 2006, both at the University of Belgrade, Serbia. He received his postdoctoral degree from the University of Toronto (Canada) in 2007/2008 while certificates from hard tissue analysis, bone transplants and implant surgery were obtained from University of Minnesota (USA), S.O.R.G Course (Spain), ITI Education Courses (Canada, Switzerland, Germany). He has been also educated for the experimental research in animal models and animal care courses at the University of Toronto.
Dr. Brkovic gave 25 short presentations, 19 domestic and 14 international invitation lectures in different professional fields such as: minor oral surgical and implant procedures, guided tissue regeneration, sinus surgery and dental anaesthesia. His research interest in bone regeneration, implant dentistry and dental anaesthesia was presented through 13 original articles in international journal with impact factor.
Dr. Brkovic was member of one international project of Canadian Ministry of Science at the University of Toronto in 2007, conducted the Grant of Septodont for socket preservation study prior to implant placement, and has been a part of team for several Grants in the field of implant dentistry supported by Straumann and NobelBiocare and the Grant of Serbian Ministry of Science between 2008 and 2010. Currently, Dr. Brkovic conducts scientific project of Serbian Ministry of Science based on the investigation of pain control and tissue regeneration expressed by different molecular mechanisms and detection of BMP, VEGF and HIF in diabetes mellitus. Dr. Brkovic has been ITI Fellow since 2008.

MIODRAG ŠĆEPANOVIĆ, DDM, Ms, PhD
- Serbia -

Position:

Assistant Professor of the University of Belgrade, School of Dental Medicine, Clinic of Prosthodontics.

Academic qualifications:

- 1997. DDM (University of Pristina, School of Dental Medicine).
- 2002. assistant (full time) at Clinic of Prosthodontics
- 2003. specialization in Prosthodontics (University of Belgrade, School of Dental Medicine, Clinic of Prosthodontics).
- 2006. master degree (University of Belgrade, School of Dental Medicine, Clinic of Prosthodontics).
- 20011. PhD (University of Belgrade, School of Dental Medicine, Clinic of Prosthodontics).

Research interests:
- computerized dentistry, computer guided implantology, small diameter implants, cosmetic dentistry.

Scientific activity:
- 6 published papers in journals (SCI – 3).
- 28 papers at professional meetings (domestic – 13, foreign - 15).
- delivered 12 invited lectures.

Memberships in Professional and Scientific Societies:
- Serbian Prosthodontic Society,
- Serbian Medical Society,
- Team member of ITI Center Belgrade,
- Certified instructor for Plan X system for Computer Guided Implantology,
- Health Management of Serbian Medical Society,
- European Society for Cosmetic Dentistry and
- Serbian Academy for Computerized dentistry.

NENAD NEDELJKOVIC, DDM, Ms, PhD
- Serbia -

Position:
Assistant Professor of the University of Belgrade, School of Dental Medicine, Clinic of Orthodontics.
Academic qualifications:
- 1996. DDM (University of Belgrade, School of Dental Medicine).
- 2001. master degree (University of Belgrade, School of Dental Medicine, Clinic of Orthodontics).
- 2002. specialization in Orthodontics (University of Belgrade, School of Dental Medicine, Clinic of Orthodontics).
- 2002. assistant (full time) at Clinic of Orthodontics.
- 2007. PhD (University of Belgrade, School of Dental Medicine, Clinic of Orthodontics).
- 2011. Assistant Professor (University of Belgrade, School of Dental Medicine, Clinic of Orthodontics).

Research interests:
- Contemporary treatment of Class II malocclusions, Fixed functional orthodontic appliances, Pre-Orthognatic Surgery treatment.

Scientific activity:
- 2 books in the field of Orthodontics.
- 10 published papers in journals (SCI – 3).
- 81 papers at professional meetings (domestic – 12, foreign - 69).
- Delivered 11 invited lectures.

Memberships in Professional and Scientific Societies:
- Serbian Orthodontic Society,
- Serbian Medical Society,
- Health Management of Serbian Medical Society,
- European Orthodontic Society.

LECTURES

1. CASE SELECTION IN SURGICAL ENDODONTICS

Economides Nikolaos

Conservative retreatment is indicated in cases that primary root canal treatment has failed. However, there are several cases that non-surgical retreatment is impossible or the success rate may be low, especially in cases that combine apical periodontitis and iatrogenic changes to the original canal anatomy.
Surgical endodontics is the logical alternative for such cases. The success rate of periapical surgery is close to 80%, however, recent studies using microsurgical techniques report higher success rates. The main factors that affect the final outcome are: the quality of the root canal obturation, the use of new biomaterials (e.g. MTA), the lesion size, the type and quality of restoration. Cases with endo-perio problems require more attention during and after surgery. The success rate of endodontic resurgery is lower than the success rate of primary surgery. However, especially with the modern techniques, endodontic resurgery may be a reliable treatment instead of tooth extraction.

2. "STATE-OF-THE-ART AND PERSPECTIVES IN ENDODONTICS"

Livio Gallottini (Rome, Italy)

Over the past 15 years, Endodontics has witnessed profound technical innovation that has revolutionized daily clinical practice.
The introduction of nickel-titanium alloys has enabled the production of rotating and, more recently, reciprocating endodontic files that consent precise root canal shaping at pre-defined tapers.
Novel irrigants and irrigation systems have also been introduced, and have significantly improved root canal detersion.
Latest generation electronic apical locators and digital intraoral x-rays have also been developed, conferring improved precision and reliability.
In root canal obturation, systems exploiting vertical condensation of warm gutta-percha have evolved, in addition to carrier-basedobturators. Furthermore, resin endodontic cements, as well as,Resilon®, a resin-based alternative to gutta-percha, are now available.
New technologies for performing orthograde endodontic retreatment (coronal disassembly, recovery offractured endodontic files, repair of root perforations, etc.) have come on the market, and endodontically treated teeth can now be restored using fiberposts in conjunction with cutting-edge dual-cure enamel/dentine adhesive systems and resinous fixing cements.
Endodontic microsurgery, with the aid of the surgical microscope, ultrasound and MTA, have helped surgical success rates reach those of orthograde treatment.
In cases where endodontic treatment or re-treatment are totally contraindicated, immediate post-extractive (and "post-endodontic") implants are becoming ever more valid and reliable alternatives.
These innovations in materials, technology and techniques consent endodontic therapy to be performed very rapidly nowadays;it can even be completed at a single sitting, culminatingin immediate, efficacious and predictable coronal restoration.
Future areas of investigation will undoubtedly be the prevention of root pulp involvement and the regeneration of this tissue, advances that will surely pave the way to exciting prospects in clinical practice.

3. FROM BEST EVIDENCE TO BEST ORAL HEALTH CARE

Virtanen Jorma I.

Evidence-based approach has reformed health care significantly over the past two decades. This development has extended across a range of health professions, including oral health care. Ability to track down, critically appraise, and incorporate the rapidly increasing body of evidence into clinical practice are essential elements for dental professionals of today. A modern dentist ought to have knowledge and understanding of the scientific basis of dentistry, the mechanisms of knowledge acquisition, as well as the scientific method and evaluation of evidence.
To facilitate the incorporation of best available, current, valid and relevant evidence with clinical experience, this presentation will portray the hierarchy of evidence, availability of data bases, and highlight the importance of the methodology used as well as critical appraisal of literature. The aim is to help restructure the way we think about clinical problems, make decisions based on known evidence, and encourage to lifelong learning.

4. BIDIRECTIONAL RELATIONSHIP: HEMOSTATIC DISORDERS AND ORAL HEALTH CONSIDERATIONS

Guzeldemir Esra

Many dental and periodontal procedures are associated with postoperative bleeding, which, is predictable

and self-limiting. The unique anatomic and physiological character of the oral structures predisposes the oral cavity to manifestations of systemic disturbances of the blood. The mouth is a frequent site of complications associated with hematologic disorders and, usually, gingival bleeding is the first sign of many hemostatic disorders. Under normal conditions, the blood clotting (hemostasis) is initiated via intrinsic (coagulation cascade) or extrinsic (platelet activation) pathways. When either of these pathways is compromised, even relatively minor procedures can be resulted with excessive bleeding episodes. Hemostatic disorders can be grouped into inherited coagulation disorders, acquired coagulation abnormalities and platelet disorders. Spontaneous gingival bleeding, gingival ulcerations, gingival enlargement, purpura, petechiae, periodontal tissue destruction, gingival pallor and gingival paresthesia would be one of the symptoms of any hematological disorder. Dentist should be vigilant in detecting abnormal gingival bleeding for diagnosis of the hematologic disorders. More common are patients with hemostatic defects secondary to underlying disease or medication.

Appropriate periodontal treatment and dental care improve the patient's life quality by preventing eating difficulties, oral diseases, and esthetic concerns and facilitate the management of the disease by hematologist. The use of well-supervised treatment protocols in the dental management of individuals with hematologic disorders can be effective and safe, and does not result in adverse sequelae.

In this presentation, the hemostatic disorders, pre- and postoperative precautions, dental treatment strategies, local and systemic measures to control hemorrhage at the pre-, intra- and postoperative period will be discussed.

5. ADVANCES IN IMPLANT RETAINED OVERDENTURES: SURGICAL PLACEMENT AND PROSTHETIC RESTORATION

Francis J. Murphy DDS, Gary A. Nord, DMD, Mirjeta Spirollari DDS, Ilya Miloslavskiy DDS.

Edentulism throughout the world is a condition that is steadily increasing in prevalence. Patients rehabilitated with complete dentures are often not satisfied for many reasons, the most problematic of these being inadequate mandibular bone for proper stability and retention of a complete denture. The placement of two implants in the mandible and usage of a variety of attachments can quickly and easily contribute to the fabrication of a more stable complete denture, even in situations where minimal mandibular bone is present. With the increasing prevalence of edentulism, and patient seeking more stable and durable prostheses, the general dentist and specialist practicing dentistry throughout the 21st century will need to be familiar with the advanced theoretical and clinical tools available to successfully treat these clinical situations.

This course will prepare the general dentist or specialist to:

1. Understand the scope of the problem of edentulism, including contributing social and dental factors.
2. Properly diagnose, treatment plan, and execute the proposed treatments, including surgical implant placement utilizing the Simpact implant system, the usage of locator attachments, and complete denture fabrication.
3. Recognize common pathologies associated with complete denture wearers and how implant retained overdentures can alleviate some of these issues.
4. Recognize and work with different overdenture attachment systems, including the locator attachment. Advantages and disadvantages of different systems will be discussed.
5. Incorporate implant retained overdentures into their own practice.

General techniques and clinical protocols for surgical implant placement for mandibular overdentures and denture fabrication will be discussed with an emphasis on the clinical techniques and the latest advancements drawn from current dental literature. Participants will also be exposed to techniques to either retrofit or indirectly convert current complete dentures into implant retained overdentures. Clinical photos will be shown and discussed. New results from an ongoing study utilizing the Simpact implant system and the locator attachment will be presented.

6. COMPOSITES AND ADHESIVES IN DAILY WORK

Prof. dr. Ivica Anic

The presentation will outlines dental adhesives, nanocomposite resin, and highlights the possibility of produce the high esthetic durable restorations in daily work. The long term clinical and research experience using traditional techniques, as well as new clinical techniques will be presented through clinical cases treated with modern one component adhesives enriched with fluoride and long working time, highly radiopac nano-composite resin.

7. RISK FACTORS IN IMPLANT DENTISTRY: WHAT DO WE KNOW?

Tolga Fikret Tözüm, DDS, PhD.

Implant dentistry is a perfect option for prosthetic rehabilitation, which results with high success rates. To suc-

ceed with esthetic and functional outcomes; the type of implant surface, clinical and advanced radiographic inspection, surgical techniques used, advanced surgical applications, loading protocols, quantitative implant stability and biologic markers around peri-implant sulcus have significant importance. A contemporary evidence based review of clinical risk factors will be presented, and the practitioner will update his/her knowledge about literature with implant cases including pre-, intra- and post-operative risk factors while managing patients in practice.

8. THE ROLE OF MAXILLO-FACIAL SURGERY IN OPTIMIZING SMILE ESTHETICS

A. B. Giannì, A- Baj

We will show the existing possibilities of collaboration between maxillo-facial surgery and various dental disciplines (gnathology, ortodonthics, implantology,) in the treatment of complex cases. In particular, starting from the analysis of different clinical cases, we explain our protocols and we will show the enormous possibilities offered by technological innovations such as mandibular alveolar osteodistraction, bony and soft tissue reconstruction with free flaps, TMJ arthroscopy and maxillo-mandibular osteotomy in improving smile esthetics in different groups of dental patients..Special emphasis will be placed on the need for a multidisciplinary cooperation in order to achieve good and stable results both functionally and morphologically.

9. MANAGEMENT OF CONGENITAL DEFECTS OF THE LIP AND PALATE

Ramazan Isufi

Aims: Through this lecture we will reflect our 15 years of experience and 40 years of treatment of congenital defects of the lip and palate in our department.

Methods: For the realization of this presentation we used patients charts, consultation registers as well as operative consultations, the experience of our honored professors as Prof Dhori Pojani, Prof Samedin Gjni, Prof Gafur Shtino etc .We also used the experience with foreign teams and numerous scientific activities within and outside the country, as well as current literature in years.

Results: Treatment of congenital defects of the lip and palate requires a team of multi discipline of specialists that have to follow the patient from birth till the age 20 years and it has specific cost .

Conclusions: From our experience in dealing with these defects we can reach the conclusion that these patients require a well trained surgeon with great experience particularly after the result of the first operation.

10. OMF CANCER MANAGEMENT

Ramazan Isufi

Aim: Through this lesson will reflect 20 years of personal experience and nearly 50 years of experience in managing OMF cancer in OMF department .

Methods: For the realization of this study we used patients charts, registers of consultations, various research activities within and outside the country, collaboration with many international teams and literature of the resent years .

Results: As soon you diagnose OMF cancer much more are the survival rate and also a decrease in the cost and disability of the patients we have.

Conclusions: In Albania, the patients with cancer still delay to come to the specialist doctor for many reasons as neglect, fear, not enough knowledge of the doctors in the neighborhood, such as incorrect handling of healer etc.

11. IMMUHISTOPATHOLOGY OF THE HEAD AND NECK TUMORS.

Dr. Leart Berdica
Pathology Department of Medicine Faculty of Tirana University.
Pathology Department of UHC Mother Teresa, Tirana.

The head and neck region is defined as the area between the clavicles inferiorly and sella turcica superiorly. This a region of great complexity and highly organized tissues that includes mucosal surfaces, soft tissues,peripheral and sometimes central nervous components, bone, cartilage and salivary glands, lymphoid tissue, the oddontogenic apparatus, paraganglia, endocrine organs and skin. Nowadays a correct pathologic diagnosis of these different neoplastic processes deserve not only macroscopic exam followed by light microscopy of hematoxyline-eosine sections that gives often a subjective diagnosis but often it is required a much more objective diagnosis done by immunohistochemistry. A lot of antibodies can be used such as (Androgen receptor, Bcl2, B-catenin, Calponin, Caretinin, CD31,CD34,CD99, CDX2, CEA, Chromogranin, Desmin, EMA, GFAP, HER2-neu, HMB45, AEI/AE3, CK4, CK5/6, CK7,CK8,CK10, CK13, CK14, CK19,CK20, Ki67, Laminin, Melan A, MOC31, p53, p63, S100, SMA, Synaptophysin, TTF1, Vimentin etj.
Squamous cell carcinoma is alwas positive for cytokeratin, so with these antibodies we can detect subtle metastatic

foci, particularly in the post-treatment settings in a lymph node.
Basaloid squamous carcinoma must be distinguished from adenoid-cystic carcinoma and small cell neuroendocrine carcinoma. BSCC is positive for cytokeratin and negative for all neuroendocrine markers and S100, adenoid cystic carcinoma is positive for S100 and small cell neuroendocrine carcinoma is positive for neuroendocrine markers.
Sinonasal undifferentiated carcinoma is positive cytokeratins and may be positive also for EMA, NSE, p 53.
Ewing Sarcoma/PNET is positive for Vimentin and CD99.
A wide differential diagnosis has to be done between Pleomorphic adenoma, Polymorphous low-grade adenocarcinoma and Adenoid Cystic carcinoma in small biopsies when it is needed including clinical data and immunohistopathology findings.
Current practice does not include prognostic markers in the head and neck carcinoma. New markers including the combination of p53, Ki-67, and p16 may help to distinguish dysplastic from normal or reactive squamous epithelium.
P63 is a useful non specific marker in the head and neck, for its stainingof normal and neoplastic squamous epithelium and myoepithelial cells.

LECTURES

12. LASERS IN IMPLANTOLOGY AND ESTHETIC DENTISTRY DREAM OR REALITY?

Dr. Dimitar Filtchev

The Implantology enters more intensively in the dental practices at the recent Dental Medicine. The problem with the immediate implantation in infected alveolus is discussed very often. Some authors prefer to wait and to put the implant few months after the healing of the wound. In that way, according to them, the result is more predictable. According to other researches, there is possible to put the implant immediately, but not in infected alveolus. Third sources show serious success at implantation in infected alveolus. A study shows that the treatment of infected alveolus with laser in immediate implantation cases, gives better clinical results, than untreated similar alveolus, in the same conditions. Laser could be used also for sinus elevation, during the second surgical phases, for treatment of perrimplantits, for pilot drilling etc. In the field of the Esthetic Dentistry lasers can be successfully used for crown lengthening, perio treatment,orthodontic treatment .Treatment plan and of developing of difficult complex cases will be discussed and the use of laser for achieving succesfull and predictable esthetic results. The lecture will go through the positives and negatives of the use of different kind of lasers in different cases.

13. SPHERIAL COORDINATES FOR ANALYSIS OF FACIAL ASYMMETRY ON 3D CT

Suk-Ja Yoon[1], Rui-Feng Wang[2], Seoyoung An[3], J. Martin Palomo[4]

1. Associate professor, Department of Oral and Maxillofacial Radiology, School of Dentistry, Dental Science Research Institute, Chonnam National University, Gwangju, South Korea
2. Research Laboratory Specialist Intermediate, Department of Biologic and Material Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, USA
3. Full Time Instructor, Department of Oral and Maxillofacial Radiology, School of Dentistry, Kyungpook National University, Daegu, South Korea
4. Assistant Professor, Department of Orthodontics, Case Western Reserve University, Cleveland, OH, USA

Objectives: Accurate analysis of facial asymmetry is essential prior to orthodontic treatment. Three-dimensional (3D) CT provides actual three-dimensional measurements of distance and angle as a useful tool for diagnosis of facial asymmetry. This study aimed to analyze facial asymmetry using spherical coordinates.

Materials and Methods: CT scans of a patient with facial asymmetry and mandibular prognathism for preoperative treatment planning and postoperative evaluation were used for this study. The spherical coordinates for identifying 3D vectors which are used for geography were altered for analysis of facial asymmetry. The altered spherical coordinates were applied to identify facial lines as length, horizontal angle and vertical angle. Bilateral discrepancies of the spherical coordinates of facial lines were evaluated for the amount of facial asymmetry preoperatively and postoperatively, respectively.

Results: Spherical coordinates identified 3D facial lines on CT scans. Bilateral discrepancies of facial lines measure the amount of facial asymmetry.
Conclusions: Spherical coordinates might be useful for 3D facial asymmetry.

Key words: face, asymmetry, computed tomography, coordinates

14. DIODE LASER 980 NM IN ORAL SURGERY

Merita Bardhoshi MD

Laser is the acronym of light amplificated by stimulation emission of radiation.Light is an electromagnetic wave and can be presented with a few important parameters wavelength,frequency, amplitude .Thermal light emit light by spontaneous emission, but laser beam emit light by stimulated emission.A laser as a macroscopic

machine always consists of three components which are: an active medium, pump source and resonator.Laser light has some charactheristics: she is monocromathic, collimed, coherent. There are different laser system in electromagnetic spectrum from ultraviolet light to infrared light which can be used in oral surgerylike: argon laser, diode laser, Nd:YAG laser, Er:YAG laser, dioksid carbon laser.Diode laser is available in three wavelength 810nm, 940 nm,980 nm.I t is so important for the application of laser the interaction between laser and tissue.The main interaction that can be observed are: reflection, scatter, transmission and absorption.Absorption is the only interaction where actually energy is transferred from light into tissue . Diode laser can be appliccated in the treatment of different oral lesion: oral benign lesion, vascular and pigmented lesion, prominent frenulum, mucocele, preprosthetic surgery, paradontale surgery, periimplantitis, operculectomie.Laser surgery can be performed without bleeding due to his propertie of photocoagulation.Due to this fact bloodless surgical field is a confort for the surgeon the time of surgery is short and no sutures are required .Laser surgery is well – accepted by all patients. Concerning the biological effect of laser the post operative period is without complications, no pain, swelling occur .The would healed without scar formation, with evident aesthetic results, with no functional disturbance of treated and surrounding area.Laser is an important tool in the surgeon´armamentarium and it is a treatment of choice in some different oral pathologies . Laser surgery is a confort not only for the patient, but also for the surgeon .

15. DENTAL EDUCATION IN KOREA & STATUS OF DENTISTRY AND TREND OF UPDATED DENTAL TREATMENT

Hyung Woo

In Korea, there are 11 dental schools and even before few years ago high school graduates were selected for admission to receive 2 years of pre-dental course and 4 years of regular dental education. However, in recent years, 4 year long professional dental graduate schools have been operated to accept college graduates. Due to numbers of problems, it is in transition to change the dental education system to back to before (2years of pre-dental + 4years of regular dental).

While every man has to serve 3 years in army as dentist (as a specialist or as a general practice in rural area), a woman doesn't belong to the same duty.

There are 10 training courses in order to be become a specialist. To achieve a license as a specialist, one should have done 1 year of internship and 3 years of specialist course before passing a specialist eligibility examination. A specialist is designed to practice his/her own area, but the conflict arises between specialists and general practices as specialists practice wide range of different areas due to some circumstances.

There are about 20,000 dentists in Korea. Most of them operate their own dental practice, and 20 % of those dentists work in dental hospitals (including ones belong to 11 dental schools).

Due to Korean dental society's high degree of interest in implant, approximately 85 % of dentists in Korea practices treatment by using implant. Many Korean implant brands compete with others internationally and all Korean citizens are registered with national insurance taking care of wide array of dental treatment (excluding treatment belonged to area of orthopedics and prosthetics).

16. A NANOTECHNOLOGICAL TECHNIQUE FOR DENTAL SURFACE PROBLEMS: PLASMASURFACE MODIFICATION

Pervin Imirzalioglu

New medical products, materials and surgical procedures keep improving current health-care practices. Modifying the surface of a material can improve its biocompatibility or surface characteristics without changing its bulk properties. Plasma surface modification is appropriate for a variety of biomedical applications either by combining the used material with an other material or by changing the surface structure. This technique has been in use at cardiovascular, dental, orthopedhic or ophtalmological applications for years. Sterilization of implants, improving of implants surfaces for adhesion promotion to bone cements, or enhancing cell attachment and growth, creation of chemically active functional groups to improve interfacial adhesion with crown and cement are some of the dental applications. The process can also be used to tailor surface energies. Hydrophilic and hydrophobic surfaces can be created on polymers through interaction with a gas plasma. Using oxygen to create hydroxyl functionality will increase the wettability of the surface. Plasma treatment is flexible in applications, effective, safe and environment friendly. Additionally, plasma is effective at near-ambient temperature without damage for most heat-sensitive biomaterials, and can modify almost any kind of substrate geometry. The most important feature is its ability to functionalize the surface which is not possible with chemical processing. Plasma surface treatment allows many types of modifications that cannot be generated by other methods. This presentation may gives some new informations and open new discussions about the latest innovations .

17. TRENDS IN MICRUSTRUCTURAL ANALYSES OF DENTAL ALLOYS BEFORE AND AFTER BIOCOMPATIBILITY TESTING

Rebeka Rudolf[1] Dragoslav Stamenković[2]
[1] University of Maribor, Faculty of Mechanical Engineering, Slovenia.
[2] University of Belgrade, School of Dental Medicine, Serbia.

Oral environment and dental structures present a complexsystem that promotes corrosion of dental alloys. Themore complex the environment and the more inhomogeneousthe alloy, the more complicated is the corrosion process.Factors such as the chemical composition of phases,the sizes and distributions of all relevant microstructuralelements and the conditions at the surfaces of the alloys, aswell as the chemical composition of the surrounding medium, determine the corrosive reactions. Despite these complexities,the controlling variables for such a corrosion processcan be recognized if the general corrosion mechanismin a given situation is well understood. For this reason, thecorrosion mechanism is a highly important considerationwhen determining the applicability of dental alloys.
Microstructures of different noble dental alloys were compared before and after conditioningfor biocompatibility, in order to identify phases and microelements responsible for the alloys' corrosive behaviour. Microstructural characterization was carried-out by optical and scanning electron microscopy, in additionto energy dispersive X-ray analysis. X-ray diffraction was applied to determine the phases' composition andtheir contribution in the alloys. Additionally, simultaneous thermal analysis was used to identify the temperaturesof phase transformations. An overall assessment before conditioning showed that noble dental alloys containing a dominant phase and a minor phase, while after biocompatibility conditioningsome phasesdisappeared, suggesting that they are predominantly responsible for the lower corrosive stabilityof the noble dental alloy.However, this study,to our knowledge, showed for the first time that minorchanges in the chemical composition of noble dental alloys areable to significantly affect microstructure and corrosionbehaviour of these alloys before and after conditioning in allculture media.
Key words: alloys, optical microscopy, scanning electron microscopy (SEM), X-ray diffraction, thermal analysis

18. DIRECT ADHESIVE BRIDGES: STEP-BY-STEP CLINICAL PROCEDURES AND LONG-TERM SURVIVAL

Prof. Dr. med. dent. Mutlu Özcan, Ph.D
University of Zurich, Dental Materials Unit, Center for Dental and Oral Medicine, Clinic for Fixed and Removable Prosthodontics, Zurich, Switzerland.

Adhesive dentistry made classical prosthodontics very much less invasive. In this lecture background information on various fiber reinforced composite materials will be given, application procedures will be explained in a step-by-step fashion and clinical longevity with such materials will be presented.

19. "STIMULOTHERAPY IN DENTISTRY AND ORTHODONTIC THERAPY"

Prof. Dr. Duran Von Arx, Jose;
Dr. Fidoski Jasmin*; Dr. Sojeva Hazbije.**
Head of the Department of Orthodontics of the University of Barcelona.
Director of the Orthodontic World Institute of Barcelona.

Stimulotherapy is a new system to treat the oral disfunctions (oral breathing, bad swallowing, bruxismus,…) in dentistry and –specificly- in orthodontics. Through stimuli introduced in the mouth with a new generation of devices, there is possible to programme excercises and changes on the muscular environement.
The "nose stimulators" are effective –specially- on the patients with nose collaps and also in mouth breathers."obturators" will be the basical device to control air flow through the mouth and –so- there are three types of obturators: permeable (with big holes), semipermeable (with small holes) and impermeable (without holes), controlling the air flow during the inspiratrion. "Lip Stimulators" have been developed to create vertical lips excercices and obtain a posterior rest tongue position as well an elongation of the upper lip and correction of the lips incompentecy and the "gummy smile". "Open bite appliance" is a special designed device for the correction of open bites and they have an "U" form to be placed into the lower dental arch. This basic form has two lateral bite planes and an anterior shield. Lateral bite planes to intrude molars and premolars. Anterior shield to prevent anterior tongue position between the upper and lower incisors.
"Muscle relaxant" has been developed to relax perioral musculature and is very usefull in perioral muscular contractions. "Bite Plane" device is used in conjunction with the "Muscle Relaxant" and helps to correct anterior deep bites and also very effective on the bruxisnus.
"MFS" means multifunction system, a protocolized working system with different functional actions.

20. MINI IMPLANTS IN ORTHODONTICS

Dr. Paolo Manzo
DDS, PhD, MS Orthod, Italy.

Anchorage is a critical issue in orthodontics and, if inadequate, can be the most limiting factor of therapy,

no matter which technique or philosophy the clinician follows. Especially when treating adults, the orthodontist faces the problem of lack of anchorage teeth or situations in which displacements in the reactive unit cannot be accepted. Furthermore, compliance may be difficult to obtain. Intraoral extra-dental anchorage has changed the limits of orthodontic therapy in such borderline cases and has developed exponentially in recent years.
Devices which do not use teeth as reactive units have the aim of avoiding unwanted tooth movement by loading a bone–metal interface and are defined as 'skeletal anchorage'. As a consequence of the first successful attempt to use surgical screws for protrusion of incisors the use of skeletal anchorage has been extensively reported.Both surface-treated and smooth implants can be used as anchorage. However, the latter types are more suitable for orthodontic purposes, since they can be used in various anatomical sites and can be removed at the end of therapy without surgical intervention. Among this second category, mini-implants are the most widely investigated and the most used in clinical practice. Although immediate loading is suggested by most clinicians, histological research of the healing pattern around immediately loaded mini-implants is limited, while in the case of early or delayed loading, several studies have been performed. Moreover, studies on immediate loading have only investigated bone healing in the form of bone-to-implant contact (BIC) without considering other parameters, such as resorption and formation indices.

What are mini implant?
These are small screw like implants made up of pure titanium or titanium alloy,these implants are inserted into the bone to get skeletal anchorage.

There use in orthodontics?
These are used for skeletal anchorage. they don't have tendency toward anchorage loss, making the treatment more productive and efficient.

21. "INDIVIDUALIZATION OF THE BRACKETS PRESCRIPTION AND STABILITY"

Prof. Dr. Duran Von Arx, Jose
Head of the Department of Orthodontics
of the University of Barcelona.
Director of the Orthodontic World Institute of Barcelona.

We have developped a new protocol to calculate the torques on each tooth to obtain a stabile position of the teeth at the end of the orthodontic treatment. Upper incisors must be –at the end of the orthodontic treatment- parallel to the Ricketts Facial Axis. Lower incisors must be positioned at the end of the orthodontic treatment in a geometrical middle position in relation to the "stabile" crowded position of lower anterior teeth at the beginning of the treatment.
Both positioning and inclinations of the upper an lower incisors will depend more of the torque of the brackets used during the treatrnent as to the wires mechanical action. That means that if we use the same brackets prescription in all our patients, that will be the same as give the same size of shoes to our population… We must designe a stabile and aesthetic occlusion for our patients. The same protocol will also decide what torque we will use on the canines and premolars and also to control better the teeth movements. Mechanical design of movements must be involved with torque control on each toot. Our "MFS" prescription is based on 20 years of experience and searching stability and aesthetics for our patients. On this way, we have developed –first- metallic brackets with different torques (MFS prescription) and –later- aesthetic selfligating brackets with the same MFS prescription.
"MFS" means multifunction system, a protocolized working system with different functional actions.

22. NATIONAL ORAL HEALTH PREVENTIV PROGRAMME FOR CHILDREN 0-18 YEARS OLD IN REPUBLIC OF BULGARIA

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In April 2009 the proposed by the Bulgarian Dental Association (BgDA) and Dr. Nikolai Sharkov a National Programme for Prevention of Oral Diseases in Children 0-18 in Republic of Bulgaria from 2009 to 2014 (NOHPPC) was adopted by the Bulgarian Council of Ministers.
At the end of the millennium dramatically decrease of the dental caries was declared in Western Europe, North America, Australia, New Zealand and Japan. At the same time the DMFT in the countries from Eastern Europe is still high. Epidemiological data on dental caries in different countries are presented. Official documents of United Nations (UN), World Health Organization (WHO), and World Dental Federation (FDI) are quoted.
A history of the oral health prevention in Bulgaria is presented. Situational analyses of the existing factors in Bulgaria, which have directly influence on oral health, are described.
The strategy and the goals of the NOHPPC are given as well.

23. STRATEGIES AND FUTURE TRENDS IN BONE REGENERATION

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Adequate volume and quality of residual alveolar bone are necessary to provide favorable esthetics and functional long-term outcomes for dental implants. Following tooth extraction, the healing process of alveolar bone never results in complete restitution of the original alveolar bone volume due to physiological resorption.
The aim of this presentation will be focused on the introduction with the outcomes of strategies in the possible prevention of the postextraction alveolar bone resorption using different protocols and biomaterials. Furthermore, deficiency in the alveolar bone leads to decisions which alveolar bone augmentation protocols could be used to ensure adequate horizontal and vertical bone dimensions prior to implant placement.
The presented data were evaluated clinically related to the successful implant placement and follow up. Beside clinical evaluation, treated sites were analyzed by histomorphometry. Healing events and data collected after bone biopsy showed solid bone deposition for implant placement and active new bone formation with trabecular bone structure. The amount of residual graft for all used biomaterials was seen in small percentage well incorporated into newly formed bone. One of the important strategies in bone regeneration is an evaluation of the active molecular mechanisms inside bony defects. That includes a record of different growth factors such as: vascular endothelial growth factor (VEGF), hypoxia inducible growth factor (HIF), bone morphogenetic factor (BMP) etc. Positive staining of mentioned growth factors as well as its increased concentrations, determined by ELISA test, showed active bone regeneration and predictability for successful implant therapy.

24. MINI DENTAL IMPLANTS IN PROSTHODONTIC THERAPY

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Background: Mini implants may have important role in retention and stabilization of complete dentures, especially with compromised patients due to the difficult anatomical condition.
Introduction: Immediate implant loading presents the current dilemma in implantology, and that kind of patient therapy has large number of advantages compared to the conventional one. Mini dental implants are offering possibility of immediate loading, but secondary stability and osseoinegration are subject of many discussions. Beside objective clinical parameters, influence that mini implants have on the subjective assessment of the prosthetic rehabilitation quality in edentulous patient are very important.
The mini dental implants were used in the study. These mini dental implants were placed in the most cases without flap surgery due to their micro and macro design, and they were loaded immediately. The study was performed on the 30 patients and on 120 implants in one year observation period. For analysing primary and secondary stability PeriotestTM device was used. Beside implant stability, peri implant bone resorpion was analysed and measured. Subjective changes beetwen quality of life, chewing efficiency and restoration satisfaction were performed with OHIP EDENT test and visual-analogue scale.
Results: Mini implants form, sufficient primary stability for immediate loading. Through the analysis of secondary stability, the decrease in perio-test values was found, after the 4 month period, which may go in favor to the oseointegration of implants. The largest registered level of peri-implant bone resorption was 0,64mm, after one year period, which presents a successful result. By summarizing the results of the subjective measures, statistically significant difference was found in improvement of quality of life, patient restoration satisfaction, and chewing efficiency after the mini dental implant placement.
Discussion: It is very important to understand that Periotest values are different for the mini dental implants comparing to dental implants with standard diameter. Determing uniform conditions for measuring of periimplant bone resorpion was big challenge in this clinical study.Mini dental implants can be used for the successful retention and stabilization of the lower complete dentures and that their use significantly increases the quality of prosthetic rehabilitation in edentulous patients.

25. TREATMENT OF CLASS II MALOCCLUSION USING HERBST APPLIANCE

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Effects of functional removable appliances in the treatment of Class II malocclusions are convenient if use them at the most favorable period for treatment. It means that the patient is in prepuberty or puberty period of life. After this period, the growth progresses slowly until adulthood, when it continues but in smaller amount. This period of postadolescence (after pubertal peak of growth) which chronologically lasts several years, is very important in functional orthodontics. This age of patients with Class II irregularities is considered to be very respectable, aesthetically and psychologically as well as functionally, since the majority of patients tend to consult an orthodontist during this period for aesthetic reasons. An orthodontist has several possible treatment solutions at his disposal: removable and fixed functional appliances treatment, camouflage orthodontics and orthognatic surgery. The therapeutic efficacy of functional removable appliances is not at a high level if applied to the patient

during the downward phase of growth (postpubertal period). The appearance and use of fixed functional appliances greatly contributed to overcoming the disadvantages of removable functional appliances.

The Herbst appliance is mostly used in the treatment of Class II malocclusions as a representative of fixed functional appliances. In addition to greater efficiency in terms of a shorter duration of therapy, they exhibit greater therapeutic effects on skeletal, dentoalveolar and soft tissue structures in patients, even in the downward phase of growth. Considering the fact that skeleto-facial growth continues many years after the cessation of body height growth and that the temporomandibular joint in adults is capable of remodeling, with respect to age and growth development, the modified new concept for the treatment of Class II irregularities is proposed by Pancherz & Ruf: 1. Growth adaptation in children, adolescents, postadolescents, and young adults, 2. Camouflage orthodontics in older adults and 3. Surgical correction in older adults.

Applying the Herbst appliance in the correction of Class II malocclusion, successful therapeutic effect is achieved due to: 1) forward mandibular movement, 2) maxillary growth restriction, 3) distal displacement of the upper dental arch and 4) mesial displacement of the lower dental arch.

ORAL PRESENTATIONS

1. THE EFFECT OF CANAL PREPARATION ON ROOT DENTINE DEFECTS

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Aim: The aim of this study was to evaluate the effect of root canal preparation on root dentine damages.
Methods: For this study were used forty extracted premolars. The teeth were divided into four groups: Ten teeth of first group were prepared with step-back technique with manual stainless steel K -flexofiles (Dentsply, Maillefer, Switzerland) with working length set 1 mm shorter than apical foramen; ten teeth of second group were prepared with crown-down technique with rotary file system ProTaper (Dentsply, Maillefer, Switzerland) and ten teeth of third group were prepared with rotary files Profile (Dentsply, Maillefer, Switzerland). Ten teeth of fourth group were left unprepared. Root were than sectioned horizontally 3 mm, 6 mm and 9 mm from the apex and observed under stereomicroscope (Brunel MX-6T Stereomicroscope, UK).
The presence of dentinal defects such as fractures, craze lines and cracks were noted for all tested groups. The Fischer exact test was used to analyses the differences between groups.
Results: The teeth that were prepared with rotary files showed more dentine defects than those prepared with hand files ($p<0.05$).
Conclusion: Root canal preparation technique might induce dentinal defects.

2. BOND STRENGTH OF AN ADHESIVE SYSTEM TO DENTIN CONTAMINATED WITH HEMOSTATIC AGENTS

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Aim: The aim of study was to evaluate the microtensile bond strength (**μTBS) of self-etch adhesive system to dentin surface contaminated with three different hemostatic agents in the presence of blood and saliva.**
Methods: Twelve extracted human carious-free permanent molar teeth were used to obtain flat occlusal dentin surfaces. Teeth were divided into four groups (I: control, II: Ankaferd, III: ViscoStat Clear and IV: Transamine). The hemostatic agents were aplicated in the presence of blood and saliva, then were rinsed and dried. Teeth were restored with self-etch adhesive system (Clearfil SE Bond) 2mm thick composite resin (Quadrant Universal LC). Then specimens were stored 37 ^{0}C distilled water during 24 hours. Five microtensile specimens from each tooth measuring 1.000.003 mm were prepared with a slow-speed diamond saw sectioning machine with a diamond-rim blade (n=15). These specimens were attached to opposing arms of the microtensile testing device with cyanoacrylate adhesive and fractured under tension at a crosshead speed of 1 mm/min. Statistical analysis was made with one-way analysis of variance (ANOVA) and Tukey tests (α=0.05).
Results: Bond strength values of groups were (mean ± SD in MPa); I: 28.81±6.84, II: 27.38±4.89, III: 24.89±5.80, IV: 24.73±7.14. There was no significant differences between bond strength of groups ($p>0.05$).
Conclusion: Contamination of dentin with hemostatic agents didn't affect the bond strength of self-etch adhesive system. Hemostatic agents may be used to control bleeding without decreasing bond strength of self-etch adhesive system.

3. INTERDENTAL CARIES PREVENTION BY USING FLUORIDATED IMPREGNATED INTERDENTAL BRUSHES AND DENTAL FLOSS

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Oral health has improved during the last 20 years in our country but dental caries remains the most prevalent dental disease. Literature indicates that dental proximal caries incidence is higher among the patients who are dental prosthetic bearers such as crowns, bridges and implants. Interdentall space is the most difficult area to be reached by fluoride ions in the mouth.
The aim of this study was to measure and evaluate proximal dental caries reduction by using fluoridated dental floss and impregnated fluoride interdental brush.

Methods: This study was conducted in a private dental practice in Tirana. The population study included 35 adults at the ages of 25 to 40 years old. The sample was divided in experiment and control groups randomly. Dental caries was diagnosed by intraoral exam and x rays at baseline for the experiment and control group by using WHO criteria. The information was entered in a standard dental form. For the experiment group we used impregnated fluoride interdental brushes in the dental office every four weeks for a period of a period of 6 months. For both groups (experiment, control) we recommended daily fluoride dental floss regime. Dental brushes were impregnated in AmF(amino fluoride) fluoridated gel. Caries experience was register by using D3MFT index. The data were analyzed by using SPSS. 18 using descriptive statistics.

Results: The interdental fluoridated product showed an caries reduction in the experiment group comparing with the control one. Proximal plaque appears to be more easily removed by regular users of interdental brushes compared with the use of dental floss.

Conclusions: The use of fluoridated proximal aids appears to be very important in order to reduce proximal caries. An interdental brush impregnated in a AmF gel is an optional treatment for preventing dental caries.

4. THE CYTOTOXIC EFFECTS OF DENTAL ADHESIVES ON BOVINE PULP DERIVED CELLS

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Aim: The aim of this study was to evaluate the effects of nine different adhesive systems on the cell viability of bovine pulp derived cells.

Methods: Uncured dental adhesives (primers and bonding agents) were dissolved in pure ethanol (500 mg/ml) at room temperature, and then stock solutions were prepared in culture medium at a concentration of 10 mg/ml. The bovine pulp derived cells were plated (25,000 cells/ml) in well plates, and maintained in a CO_2 incubator at 37°C for 24 hours. After 24 hours incubation culture medium was replaced with 200 µl of culture medium containing of dental adhesives for 24 hours at 37°C. The cell viability was analyzed by measuring the mitochondrial activity with the methyltetrazolium test (MTT). The data was analyzed by One Way Anova and Tukey HSD test.

Results: The **Results:** showed that all adhesives were cytotoxic effects for bovine pulp derived cells when compared to control group (*p<0.05*).

Conclusions: This study indicates that uncured adhesives components might have cytotoxic effects to the bovine dental papilla derived cells.

5. COMPOSITE RESTORATIONS ASSOCIATED WITH CHOICES FOR REPLACEMENT (CROSS-SECTIONAL STUDY)

Xhaja Orsjola

The longevity of composite fillings depends of many factors: technique of cavity preparation, the shade of composite used, technique used in cavity filling, polymerization and polishing filling.

Aim: The aim of the study is to evaluate the failure of the composite fillings of the class II of Black.

Methods: Eighty composite fillings of the class II in patients of age 18-60 selected to be replaced are included in this study. A questionnaire was filled out after each procedure in order to assess the clinical conditions that indicated the restoration replacement (marginal staining, unsatisfactory restoration anatomy, marginal fracture, fractured restoration body, painful symptoms, dental fracture, composite, discoloration and/or restoration displacement). These conditions could be combined. The presence of secondary caries (clinical and X-ray exanimation) was evaluated in each case.

The chi-square and exact Fisher tests were performed to analyze the different variables (p< 0,05).

Conclusion: We will give the results and conclusions at the end of a 9 months periode(july 2011- april 2012).

6. THE EFFECTS OF RADIATION ON THE MICROLEAKAGE OF THE DIFFERENT RESTORATIVE MATERIALS

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Aim: Today, people's one of the most important health problems is cancer. Radiotherapy which is used to treat cancers can cause many adverse effects. The ionized radiation which is used especialy on head and neck region influence the physical and chemical features of teeth. The aim of this study is to evaluate the effects of radiation on the microleakage of restorative materials.

Methods: In this study, 150 extracted human molar teeth were used. 75 of the teeth were used for irradiated group while the remainings were served as control group. Teeth

were irradiated as the standard procedure of head and neck radiotherapy; total dose of 60 Gy was delivered in 2 Gy/d fractions for 5 days per week for six weeks. Class II cavity preparation were prepared on the mesial and distal aproximale regions of all of the samples. The cavity was prepared 1 mm over the cementoenamel junction at one side and 1 mm below at the other side on the same tooth. The groups were randomly assigned into five subgroups (n =15) and the samples were restorated with GC Fuji IX GP Capsule, GC Fuji II LC Capsule, Dyract Extra, Gradia Direct Posterior and Filtek Z250. After finishing and polishing, all specimens were thermocycled for 500 cycles between 5 and 55 °C respectively using a dwell time of 30 s in each bath and then placed in 0.5% basic fuchsine solution for 24 hours at room temperature. Specimens were sectioned into 2 parts in mesio-distal direction and examined using a stereomicroscope (X20) and microleakage scores were determined. Data were analyzed using the Kruskal-Wallis H and Mann-Whitney U tests and statistically evaluated.

Results: The microleakage of restorative materials were increased with irradiation application ($p<0,05$). Gradia Direct Posterior composite showed the minimal microleakage among tested restorative materials. At the gingival regions of the teeth prominent increases in microleakage. None of the materials could completely prevent the microleakage in gingival region.

Conclusion: Irradiation application increased the microleakage of restorative materials.

7. IN VIVO PERFORMANCE OF THE NEW LED-BASED DEVICE FOR OCCLUSAL CARIES DETECTION

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Aim: The aim of this in vivo study was to assess the performance of the light-emitting diode (LED) and laser fluorescence-based (LF) devices in comparing visual examinations for diagnosing occlusal caries.

Methods: A total of 153 occlusal surfaces were investigated. Each occlusal surface was assessed with the LED - and LF-based devices after the visual examination was performed. Pit and fissure openings were applied to the occlusal surfaces in which opacity or discoloration was distinctly visible after air-drying. Inter-examiner reliability of the caries examination was assessed using Cohen's Kappa statistics. The sensitivity, specificity, and accuracy in diagnosing occlusal caries using these methods were calculated according to appropriate thresholds.

Results: An acceptable inter-examiner agreement was found for the LED- and LF-based devices and visual examinations (κ: 0.56 κ: 0.61, and κ: 0.81, respectively). Higher specifity values were achieved at a T2 threshold on the laser-based device (0.76 and 0.80), and at a T1 threshold on the LED-based readings (0.60 and 0.62) and visual examination (0.90 and 0.93) for both observers. On the visual examination, higher sensitivity values were found at both thresholds for the two observers in comparing the three caries detection methods (0.98 at T1, 0.96 at T2). Accuracy values for the T1 were higher than the T2 values for the three caries detection methods.

Conclusion: The caries lesion may be detected more accurately than sound areas by both caries detection devices. It was also suggested that the T2 threshold may be more appropriate for determination of sound areas on laser-based devices, and the values of T1 were found as an acceptable threshold for the detection of caries lesion on both devices.

8. THE MANAGEMENT OF DENTAL PAIN

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Background. It has been reported that nearly 90% of patients with dental pain had pulpal or periapical disease. In these cases the clinician would provide usually just a few minutes a correct diagnosis and root canal treatment of emergency problems, especially in a busy dental practice.

The aim.The current survey was to determine the frequency and techniques are being used for management of dental pain in endodontic practices today.

Methods. The clinicians involved in this study 416 patients with dental pain performed in our classes in Dental University Clinic in Tirana during the period 2010 - 2011.

Results.The authors noted that approximally 168 cases were diagnosed with irreversible pulpal pathology.Root canal treatment was the most useful method for dental pain management.

Conclusion. Pulpal pathologies occupy a significant percentage of patients with dental pain. Before treatment is very important to evaluate patient complaints for a correct diagnosis. The easing of pain was realized by removing the pulp and treating the canal system.

9. USE OF CUSTOMIZED FIBER POST IN A MAXILLARY CENTRAL INCISOR HAVING INTERNAL RESORPTION: A CASE REPORT

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Introduction: Internal inflammatory root resorption destroys dental hard tissue by odontoclast activity.If the resorption is not detected and remains untreated, itcan potentially grow larger. This condition makes difficult to cleaning, shaping and obturation of the root canal. There are several kinds of treatment protocols advised for these pathological conditions.The purpose of this case report is to present the management of an internal resorption case.

Methods: A14 year old female patient was referred for treatment of cracked maxillary central incisor caused by trauma. Radiographic examination revealed periapical radiolucency and an irregular radiolucent area at the cervical third of tooth. It was diagnosed as extensive internal resorption secondary to trauma. The root canal preparation was completed with hand files and thorough irrigation. Calcium hydroxide was placed as a temporary dressing for 7 days. At the second visit, root canal was filled with a sealer in combination with cold lateral compaction of gutta-percha. A fiber post was covered with resin composite material and inserted into the wet root canal, cured from the coronal for 40s and immediately drawn back. The apical part of the composite material was then cured for 40s. and a customized post was performed. The post was then luted to the root canal using self-adhesive resin cement. Coronal restoration was performed using the same composite resin.

Conclusion: At theinternal resorption cases customized fiber posts could be preferred when the commercial posts don't perfectly fit the root canal shape. Reinforcement of thin residual tissue with this technique contributes to achieve reducing the amount of cement needed and a homogeneous restoration that should increase the resistance of tooth.

10. MATERNAL TRANSMISSION OF STREPTOCOCCUS MUTANS IN EARLY CHILDHOOD CARIES

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Introduction: Early childhood caries (ECC) is a public health problem that affects babies and preschool children. AAPD has recognized the virulent nature of ECC that is an infectious transmissible disease and Streptococcus Mutans (MS) is the main causative agent. Early acquisition of SM from mothers is a major risk factor for ECC.

Aim: The aim of the study is detection and quantitation of Streptococcus Mutans in oral samples of children with and without ECC and their mothers. This study assess the relationship between maternal transmission of SM and ECC status.

Methods: Twenty mother/child pairs were selected for this study and divided in four equal groups. The criterion for selection was the presence of ECC for the first children group and their mothers in second group. Non ECC children were selected in the third control group and their mothers in the fourth group. Microbiological investigation collected information on colony-forming units (CFU) of Streptococcus Mutans in oral samples for the four groups. Counted **Results:** compared to each other detected the level of SM in ECC group in comparison with non ECC group and evaluated the correlation between the levels of SM in mothers and in their children.

Results: The mean salivary level of SM (CFU/ml) in ECC group was higher in comparison with the mean salivary level of SM in non ECC group. The mean salivary level of SM in mothers of ECC children was higher too.

Conclusions: The **Results:** showed the relationship between maternal salivary levels of SM and ECC. The **Results:** indicated that the high level of SM is a major risk factor for ECC.

11. APPLICATION AND EVALUATION OF MTA IN PEDIATRIC DENTISTRY

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Background. Several materials for treatment of deciduous and permanent teeth, with an open root apex have been used in pediatric dentistry. MTA was introduced as a successful material for treatment since 1998.

The aim: The aim of this study is to evaluate the clinical and radiological of the MTA effect on the treatment of pulpotomy in deciduous teeth and the MTA in open root apexes in permanent teeth.

Method: 35 children were selected to participate in this study between the ages of 4-16 years old.The study was conducted in private practices in Tirana. Pulpotomy was performed in 15 children, in deciduous teeth and 25 children were treated for their open root apexes in permanent teeth. Clinical and radiological follow up were made in 3, 6 9,and 12 months,

Results: The Results of our study were, 85% clinical success, 80% radiological success and the apical barrier was formed in 80% of the cases. This **Results:** are similar to those of the other authors who have performed similar studies.

Conclusions: MTA is a material that provides a good protection for the pulp that contributes formation of the dentinal bridge and to the tooth vitality. It estabilishes the conditions for the apexification process.

12. DENTAL AGE CALCULATION BY DEMIRJIAN'S METHOD ON CHILDREN IN F.Y.R.O.M.

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Aim: Aim of this study was to evaluate Demirjian's method for dental age calculation for children based on estimation of mineralization stages of permanent teeth when applied on children in F.Y.R.O.M..
Method: The sample of panoramic radiographs was selected from children aged 5-13 who were attending faculty dental clinics at the University of Skopje. Totally 471 radiographs of children were evaluated (233 boys and 238 girls) using four Demirjian's methods. Different sets of teeth were scored with one of eight stages of development (A-H). One method from 1973 is based on evaluation of 7 permanent teeth from left side of mandible and three methods from 1976 (one method based on evaluation of 7 permanent teeth and two methods based on evaluation different sets of four teeth: PM1, PM2, M1, M2; and I1, PM1, PM2, M2) from the left side of mandible. Kappa score was used for evaluation of intra-rater and inter-rater agreement.
Results: The mean Kappa score was 0.86 for intra-rater and 0.80 for inter-rater agreement. All four methods statistically significantly overestimated dental age comparing to real age ($p<0.001$). The mean overestimation for both genders was the least in PM1, PM2, M1, M2 method (0.86±0.95 year), following I2, PM1, PM2, M2 method (0.96±0.97 year) and method from 1976 using 7 teeth (0.96±0.97 year). The greatest overestimation was for method from 1973 using 7 teeth (1.11±1.00 year).
Conclusion: Demirjian's methods for dental age calculation are not suitable for children in F.Y.R.O.M..

13. DISINFECTION OF THE ROOT CANAL SYSTEM USING NOVEL PHOTODYNAMIC ANTIMICROBIAL THERAPY

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Introduction: Photodynamic antimicrobial therapy (PDAT) promotes disinfection and elimination of bacteria asa result of the photosensitization of microbial components. Thepurpose of this study was to test the hypothesis that PDAT, byphoto-activating photosensitizer Indocyanine green (ICG) with a near-infrared diode laser (810nm wavelength), has bactericidal properties on prototypestrains of Enterococcus Faecalis.
Methods: Planctonic cultures of Enterococcus Faecalis, grown in brain heartinfusion broth for 24 hours, underwent centrifugation and resuspendedin phosphate buffer saline. The suspension was adjusted to a baselineoptical density of 0.09 at 660nm, corresponding to a concentration of1-1,5 x 108 CFU/ml, using a spectrophotometer. Aliquots of thesuspension were incubated in extracted single-rooted teeth, previously chemomechanically prepared and sterilized.The following groups were tested: Group 1: Addition of ICG followed byexposure to laser light (0,5W power output) for 60 secondscorresponded to medium intensity light dose of 238 J/cm2. Group 2: ICGand exposure for 180 seconds (0,2W power output, light dose of 287J/cm2). Group 3: Exposure to laser light alone. Group 4: Addition of ICG alone. Group 5: Addition of 2,5% sodium hypochlorite solution.Group 6 and group 7 served as positive and negative grouprespectively. Bacterial growth was assessed by methods of serial dilution and viable plate counts after 24 and 48 hours incubationtime. All experiments were performed in duplicate.
Results: The results demonstrated that PDAT with combination of ICG and diodelaser exhibited significant antimicrobial activity towards the testedmicrobial strain, similar to the efficacy of sodium hypochlorite solution. Laser light, or the photosensitizer alone, had nosignificant effect on the eradication of bacteria.
Conclusions: The current ex-vivo study highlighted the interaction between a photosensitizer (Indocyanine green) and anear-infrared diode laser, as a novel combination of the PDAT, in theelimination of EnteroccocusFaecalis pathogen species.

14. EVALUATION OF ANTIBACTERIAL EFFECTIVENESS OF 8 ADHESIVE CEMENTS AGAINST ORAL BACTERIA

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Aim: Most currently available dental cements are designed to retain restorations, orthodontic bands and

appliances, and fixed prothesis in a stable, and long-lasting position in the oral environment. This study examined the antibacterial activities of different types of adhesive cements (BisCem® (BisCem),Super-Bond C&B (Super), Rely X™ (Rely), Panavia™ F 2.0 (Pan), Variolink® II (Vario), Unitek™ Multi Cure (Unitek), Multilink® Automix (Multi), Clearfil™ Esthetic Cement (Clear), Transbond™ LR (Trans) using agar diffision test (ADT)).

Methods: The test materials were inserted in the wells of Muller Hinton agar plates inoculated with *Streptococcus mutans* and *Streptococcus salivarious*. The diameters of the inhibition zones produced around the materials were measured after 24 h of incubation. The **Results:** were analyzed by the Two way ANOVA, Kruskal Wallis and the Mann-Whitney tests at a significance level of P<.05.

Results: Unitek Multi Cure cement exhibited a significant differences from control group against both *S. mutans* and *S. Salivarious* (P <.05) While the zone of inhibition of Unitek Multi Cure cement was shorter than control group, Unitek Multi Cure had antibacterial effect against *S. mutans* and *S. Salivarious* (P <.05). *S. mutans* displayed a significantly lower resistance to Unitek Multi Cure (8.50±1.77), BisCem and Superbond C&B than *S. salivarious* (P <.05).

Conclusions: Of the materials tested, only the conventional glass ionomer cement, Unitek Multi Cure, exhibited greatest in vitro antibacterial activity against both *S. mutans* and *S. Salivarious*. Dental caries formation had been suppressed by the fluoride-releasing conventional glass ionomer cements.

15. DENTAL TREATMENT DURING PREGNANCY IN WOMEN

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Dental treatment in pregnant women has always been a matter of discussion and controversy in amongst clinicians

Aim: The aim of this study is the comparison of the outcomes in pregnant women who received dental treatment during their pregnancy and those who were not subject to any dental treatment during their pregnancy. **Methods**: 120 pregnant women, from 12th to 24th week of gestation, were randomly selected from 5 advisory pregnancy centres in Tirana and assigned for this study. They were all evaluated for the need for dental treatment. 57 women received dental treatment at 12th to 24th week of gestation. The type of treatments performed were; scaling, simple caries treatment and endodontic treatment. Fisher exact test was used to compare rates of adverse events between the group who received dental treatment and the one who did not.

Results: The difference in adverse outcomes between the group who received dental treatment and the one who did not, was not significant in statistical terms (p>0.05).

Conclusions: Dental treatment in pregnant women between 12th and 24th week of gestation, was not associated with any adverse pregnancy outcomes.

16. DEPOPHORESE WITH CUPRAL AND EFFECTIVENESS IN THE PERIODONTITIS TREATMENT

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Aim: Periapical inflammations in permanent teeth are traditionally treated with preparations consisting of $Ca(OH)_2$ combined with various antiseptics. The aim of our study is to observe clinically and radiologically the periapical regeneration under the influence of the preparation Cupral for a period of 1-2 years.

Methodology: In the period of two years we have treated over 125 clinical cases with apical inflammation, 75 females and 50 males. The average age ranged from 20-65 years. 55 cases suffered chronic granular periodontitis, and 70 patients chronic granulomatous periodontitis with problematic roots. After opening the endodontic cavities, we opened the channels in the average depth of 1/3 to 2/3 the length of channels, creating a channel reservoir for suspension of the preparation Hydroxide-Copper-Calcium (Cupral). With the help of apparatus Komphort 2 (brand Humanchemie), we performed 2-3 sessions for each problematic channel within 6-7 days intervals. In the third session we performed channels definitive filling with Atacamite paste. The cases were observed clinically and radiographically after 6 months, and 1-2 years.

Results: Improvement was observed clinically since the first two sessions of depophorese with Cupral. At the end of the third session when also the definitive filling with Atacamite was finalized, the result of changes in periapex was quite good, whereas the percussion was negative. Radiological control after 3-6 months showed improvement of the bone structure until ossification of the hearth and partial regeneration of granulomatous hearth.

Regeneration and ossification of the hearths (positive results) was achieved in 98.4% of cases, whereas in 1.6% of cases the inflammation progressed despite the treatment.

Conclusion: We came to the **Conclusion** that the depophorese method of Cupral preparation gave excellent **Results:** in treating periapical inflammation and should be used as alternative in Endodoncy.

17. DENTAL CARIES EXPERIENCE AND TREATMENT NEEDS AMONG 6 YEARS OLDS IN ALBANIA

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Aims: Dental caries is still a disease with high prevalence in Albania compared with EU Countries. This study was held to measure the dental caries experience and treatment needs among the age group of 6 years olds in Albania.
Methods: The study was a cross sectional survey. We used the dft, and SiC indices to measure the dental caries experience and for the treatment needs the ratio of d/dft representing the prevalence of untreated caries. Approval was received from Ministry of Health. Permission was acquired from the school authorities. We used cluster sampling technique. Schools and classes were selected randomly. Sample size was represented n = 1,533 children of first grade. Participants were from seventeen regions, public schools both in towns and suburbs and represented different social economic level based on the Institute of Statistics of Albania data. Calibration was done for the twelve examiners, two from each region. We followed the WHO criteria. Clinical Examination and a dental exam form were completed for each participant. Descriptive statistics analyses were performed by using the statistical software SPSS 18.
Results: There were 49.3% female and 50.7% male. For the 6th years old the mean dft = 3.75 (+/- 3.2) and SiC = 7.5 (+/- 2.3), and the prevalence of caries free was 20.5%. The prevalence whithout active carie (d = 0) for the wholegroup was around 23.1% and the prevalence of untreted caries is d/dft= 0.9.
Conclusions: Dental caries experience and untreated dental caries is high. There need work to be done toward treatment and preventive program for these age groups.

Acknowledgements: Ministry of Health of Albania.

18. FRACTURE PREVALENCE OF CHILDRENS TOOTH AT UNIVERSITY DENTAL CLINIC IN PRISHTINA

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The injuries of the tooth supporting apparatus, sometimes associated with trauma (fractures) of the teeth are a common pathology of preschool and school age childrens.The high prevalence of caries in frontal teeth and orthodontic anomalies (portrusion of the front maxillary teeth) can be one of the factors for dental trauma.
Aim: Is to determine the prevalence of teeth trauma in children of different age groups who have visited the Clinic of Preventive and Pediatric Dentistry in Prishtina.
Methods: - We have used information's from our data base system of our clinic on this period of time January 1st 2011 –December 31st 2011.
Results: From total 2334 number of children who have visited our clinic for the first time in 2011, children with dental trauma were 106 (4.5%).Treatment was done based on the clinical statement of the injury: Aesthetic reconstruction with composite crown of a high quality, retention with para-pulpar and pulpar pin and immobilization in cases of serious injuries of the tooth supporting apparatus.
Conclusion: Teeth fractures and injuries of tooth supporting apparatus are a very concern pathology for the patient, parents and dentists also. Unfortunately our children, neglect and they are delayed for the necessary treatment. Urgent intervention is needed, specially in those high probability cases of injuries and wearing a protective mouth gard is welcomed.

19. DENTAL CARIES EXPERIENCE AND TREATMENT NEEDS OF THE DISABLED CHILDREN

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Aim: The aim of this study was to assess the dental caries experience, estimate treatment needs of disabled children and compare the caries experience of these children with those without special needs (healthy children).
Methods: The study entailed the clinical examination of 86 children, between 6 and 19 years old, who were attending special school in Prishtina, Kosovo. The children were grouped in four types of disabilities: Mental Retardation, Down Syndrome, Cerebral Palsy and Autistic Disorder. Carries examination were carried out in accordance with WHO criteria.
Results: The **Results:** showed that prevalence of caries was very high (95%), only five children were without caries (DMFT/dmft=0). Mean DMFT for all participants was around 6. Level of treated teeth was very low (8%), extracted teeth was 10%, while number of the caries teeth was very high (82%).
Conclusion: Children in this study had a high prevalence of dental caries. The treatment needs regarding both dentitions are extremely high in all groups of

disabled children often due to a lack of basic manual skills and intellectual abilities. It is important for the dentist to concentrate on a preventive approach and provide proper dental education to parents of disabled individuals.

20. DENTAL TREATMENT NEEDS OF CHILDREN SUSCEPTIBLE TO INFECTIVE ENDOCARDITIS

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Background: Infective endocarditis is the serious infection of endocardium and heart valve. Children susceptible to this infection are those with congenital heart diseases. Some dental treatments of this group of children can cause infective- bacterial endocarditis if they are not covered previously with antibiotics.
Aim: The aim of this study is to present the dental status, dental treatment needs of children with congenital heart diseases, and at the same time to present the cases which had dental treatment (conservative and surgical) with or without prior antibiotic protection.
Methods: The study involved 91 subjects divided in the study group (57 children with a cardiac condition) and the control group (34 healthy children). The children were age 6-15 years with mixed and permanent dentition. The dental status is compared between these groups by age and gender. For the study group were used the special questionnaires to obtain the information about their previous dental treatment, with or without antibiotic cover and for possible disorder of the current disease/ possible development of bacterial endocarditis after dental treatment.
Results: For the study group DMFT>0 was in 78.9% and DMFT=0 in 21.1% while for the control group DMFT>0 was in 76.5% and DMFT=0 in 23.5%. There was no significant difference between two groups (p>0.005). 77.5% of children at risk from IE had dental visits, while 22.5% never been to the dentist. About 65% of them were informed about antibiotic protect prior to dental treatment because of their heart disease and possibility for development of IE.
Conclusion: The small number of children with congenital heart diseases had dental treatment (conservative and surgery), have not been properly instructed for the antibiotic protect as a prophylactic measure. Antibiotics should be given only for some several types of heart diseases and for dental surgery treatment, because of the possibility of increasing bacterial resistance

21. THE PREVALENCE OF PATHOLOGIES IN THE ORAL MUCOSA CLOSE TO AMALGAM FILLINGS

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Aim: The study of two pathologies in the oral mucosa close to amalgam fillings, namely the lichenoide reactions and pigmented lesions. Determination of the prevalence of these pathologies in the study group consisting in 300 subjects with amalgam fillings.
Introduction: Amalgam is the oldest restorative material which is used also today for teeth fillings. It is recognized for its sustainability. In different studies made, in the oral cavity, blue gray pigmentations and mucosal lichenoide reactions close to amalgam fillings were found.
Method: 300 subjects with teeth filled with amalgam fillings were studied. The duration of these fillings was over 3 years. All the subjects filled in a questionnaire, which was of different type based on pathology present in the oral cavity. From the information obtained was revealed the presence of metallic taste in the mouth, galvanic electricity feelings, bruxism, type of foods used, traumatic teeth removals, removal of fillings without the use of rubber dam's.
Result: In 18 subjects were noticed blue gray pigmentations in the oral mucosa adjacent to amalgam fillings. Of these, 3 subjects had amalgam fillings removed without the use of rubber dam, 6 subjects had traumatic removal of teeth filled with amalgam. In 5 distinct subjects was observed the presence of mucosal unilateral lichenoide reactions close to amalgam fillings.
Conclusion: Lichenoide reactions in oral mucosa close to amalgam fillings are identified in 1.7% of subjects included in the study. Pigmented lesions are present in 6% of the subjects, where 2% of them had traumatic removal of teeth filled with amalgam and 1% had amalgam fillings removed incorrectly.

22. TEMPERATURE RISES DURING TOOTH BLEACHING WITH DIFFERENT LIGHT CURING UNITS

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Aim: The aim of this study was to evaluate the influence of 3 different light curing units on the temperature rises induced in the pulpal cavity during bleached with 35% hydrogen peroxide.

Methods: Forty extracted maxillary central incisors were randomly divided into 4 groups according to photopolymerization procedure (n=10). Whiteness HP bleaching agent which is containing 35% hydrogen peroxide bleach was placed on the facial tooth surface and was irradiated with no light (control); an light-emitting diode (40 s), a diode laser (4 W, Continous mode, 1 mm distance, 20 s) and Nd:YAG laser (4 W, 60 Hz frequency, 1 mm distance, 20 s). Temperature rise in the pulpal chamber was measured with a J-type thermocouple wire that was connected to a data logger before and immediately after each 20- 40 second application. One tooth of each group was selected for scanning electron microscope (SEM) analysis. Data were analyzed using one-way ANOVA followed by the Games Howell post-hoc test at a preset α of *0.05.*

Result: One-way ANOVA revealed that there was significant difference among the light curing units (*p<0.05*) and between control group and light curing units (*p<0.05*). The Nd:YAG induced significantly higher temperature increases than other light curing units (*10.7 ◦C*). The LED unit produced the lowest temperature changes (*3.2 ◦C*) among the light curing units. The presence of bleaching gel reduced temperature rises in the control group (*0 ◦C*)

Conclusion: The **Results:** suggested that using light curing units caused temperature changes in the intrapulpal cavity during tooth bleaching. The use of LED will be more safety for pulpal health when assisted with WHP bleaching gel.

23. EFFECTS OF A RE-WETTING AGENT ON BOND STRENGTH AFTER TWO-DIFFERENT ETCHING TECHNIQUES

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Aim: The objective of this study was to investigate the effect of a rewetting agent on the microtensile bond strengths (μTBS) of sound dentin after acid or laser etching.

Methods: Twelve extracted human third molars were ground to expose a flat occlusal dentin surface. All the dentine surfaces were grinded with 600-grit silicon carbide (SiC) paper under running water. The teeth were randomly divided to two groups according to the etching procedures then, each of these groups was divided into two subgroups; I: conventional 37% phosphoric acid, II: conventional 37% phosphoric acid with rewetting agent, III: laser etching by an Er:YAG laser and IV: laser etching with rewetting agent. Etch and rinse adhesive material was applied and the teeth were restored with Microhybrid composite resin. Five 1mm^2 stick-shaped microtensile specimens from each tooth were prepared with a slow-speed diamond saw sectioning machine fitted with a diamond-rim blade (n=15 specimens). The bond strength data were statistically compared by one-way variance analysis (ANOVA), complemented by Tukey's test.

Results: The microtensile bond strengths were as follows (mean ± SD in MPa): 25.15±9.07 (group I), 22.84 ± 6.80 (group II), 16.74±6.04 (group III), 14.53 ± 4.64 (group IV). In both acid and laser etching groups, there were no statistically differences between control and test groups. However, there were statistically significant differences in the resulting tensile strength of the bond between etching procedures. Acid etching procedure was showed higher bond strength values than laser etching procedure *(p*<0.05*).*

Conclusion: Rewetting agent didn't affect the bond strength of adhesives to acid or laser etched dentin surface.

24. INFLUENCE OF EUGENOL ON PUSH-OUT BOND STRENGTH OF FIBER POSTS CEMENTED WITH RESIN LUTING AGENTS

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Aim: To evaluate the influence of eugenol on push-out bond strength of fiber posts cemented with different kind of resin luting agents.

Methods: Seventy-two extracted maxillary single-rooted canine teeth were randomly divided into two groups of 36 teeth and filled as follows: group 1: control group, gutta-percha only (did not receive eugenol); group 2: eugenol-containing sealer. All root canals were filled and each group was divided into three subgroups. The posts in each subgroup were cemented with the following materials: subgroup 1: 2-step self-etching adhesive system group (Clearfil Liner Bond 2V + Panavia F); subgroup 2: 1-step self-etching adhesive group (Panavia F); subgroup 3: Self-adhesive group (Clearfil SA Cement). The dislodgement resistance was measured using a universal testing machine. All data was subjected to ANOVA using a factorial design and Tukey test *(α= 0.05).*

Results: The use of the eugenol-containing sealer significantly reduced the push-out bond strength of a fiber post *(P < 0.05).* The push-out bond strength of

Panavia F was significantly higher than those of the other groups with eugenol *(P < 0.05).*
Conclusion: Panavia F group was less susceptible to the inhibiting effect of eugenol than the other evaluated groups when the fiber post was cemented in canals filled with eugenol-containing sealer.

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25. EFFECT OF ER:YAG LASER ON BOND STRENGTH OF COMPOSITE RESIN TO CARIES EFFECTED DENTIN

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Aim: The aim of this study was to evaluate the effect of erbium:yttrium aluminium garnet (Er:YAG) laser on microtensile bond strength (TBS)of caries affected dentin treated with a total-etching agent.
Methods: Ten extracted human molar teeth that have proximal carious lesion were used in this study. The teeth were randomly divided into two groups. The carious dentin was removed with a bur for the first group (as control) and removed with Er:YAG laser (Fidelis Plus 3)for the second group (n=5). During the excavation of caries, a laser fluorescence caries detector was used to check caries amount. Carious lesions were excavated until the caries detector showed between 11-20 laser fluorescence values in the center of lesions. Teeth were restored with 2mm thick composite resin and total-etch adhesive system. Then specimens were stored in 37 °C distilled water for 24 hours. Teeth trimmed mesio-distally and buccolingually. Three stick shaped specimens from each tooth prepared for microtensile testing machine (1x1 0.003mm) with a slow-speed diamond saw sectioning machine with a diamond-rim blade (n=15). These specimens were attached to opposing arms of the microtensile testing device with cyanoacrylate adhesive and loaded until fracture occured at a crosshead speed of 1 mm/min. The data were analyzed independent-samples T test ($\alpha = 0.05$).
Result: Independent-samples T test indicated that there was not significantly difference between the bond strength of Er:YAG laser and control groups (p>0,05).
Conclusion: TheEr:YAG laser caries excavation method does not affect the TBS of caries effected dentin.

26. ANTIMICROBIAL EFFECTS OF SEVERAL CALCIUM SILICATE-BASED ROOT-END FILLING MATERIALS

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Aim: The purpose of this study was to evaluate, in vitro, the antimicrobial effect of iRoot BP, iRoot BP Plus, and mineral trioxide aggregate (MTA) against *Entercoccus faecalis* and *Candida albicans* by using a modified direct contact test.
Method: The materials were tested immediately after application to the microtiter wells (fresh samples) and after setting for 1-day and for 7-days (set samples). Ten microliters of microbial suspension was added to each well for direct contact with each material for 1 hour at 37°C and 100% humidity. Then fresh media was added and, survival of bacteria and fungi was determined by using 10-fold serial dilution and inoculated onto agar plates. After incubation for 48 hours visible colonies calculated and converted to their $\log_{10}$ values. Statistical analyses were performed using repeated measures ANOVA followed by Tukey test.
Results: In fresh and 1-day samples all of tested materials showed statistically significant antimicrobial effects compared to control groups (p<0.05). In 7-day samples, there were no significantly differences compared to control groups. But also, there were no statistically significant antimicrobial effect between each groups in fresh and set samples.
Conclusions: MTA, iRoot BP and iRoot BP Plus had similar antimicrobial efficacy against *E. faecalis* and *C. albicans.*

27. TOPICAL FLUORIDES AND DECALCIFICATION AROUND FIXED ORTHODONTIC APPLIANCES

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Aim: The aim of this study was to examine the efficiency of the topical fluorides applied for the prevention decalcification in children undergoing the fixed orthodontic appliance therapy. With the clinical evaluation of the effect of the applied preventive treatment in patients with undergoing orthodontic treatment, whether the teeth were healthy, remains intact at the end of the research period and establishing of possible changes in pH value of saliva as a result of application of preventive treatment.

Methods: Within the clinical trials, 60 subjects were examined. The subjects were divided into two groups, where the first group (40 subjects) was treated with topical fluoride product (Fluorogal - solution with low fluoride concentration of 0,05% F). The control group was consisted of 20 examined subjects. Among all examinees (60), before and at the end of orthodontic treatment, was registered the simplified Oral Hygiene Index (OHI-S) and DMFT - index. During the laboratory research the pH in saliva of the subjects was determined, before the orthodontic treatment, in all subsequent scheduled controlled examinations (after one, six and twelve months) and after orthodontic treatment.
Results: Lowest increase in the DMFT - index we have in the experimental group treated with solution containing fluoride, and highest increase in the control group. The pH value in saliva in the experimental group showed a gradual increase with the highest - statistically significant values after six months of the beginning of treatment *($p < 0.05$).* In the control group of examinees, there have not been noticed a change in the salivary pH in terms of its increasing in the individual time intervals.
Conclusions: To keep the dental health and the integrity of enamel, during the period of fixed orthodontic treatment, the application of appropriate preventive measures is necessarily. Within this relation is essential to practice oral hygiene by the patient, but it must be emphasized and occasionally professional removal of plaque in these patients.

28. ENDODONTIC-SURGICAL TREATMENT OF PERIAPICAL LESIONS USING DIODE LASER

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Aim: In this study we evaluate the effects of diode laser in infection of root canals and periapical lesions.
Methods: Fortifive(45) patients were taken in study, amenable to endodontic-surgical treatment.
Firstly the endodontic treatment of canals was done, irradiation also with fiber of diode laser and definitive obturation.Then a conventional surgical technique was used with retrograde amalgam filling.Finaly laser irradiation of bone defect.
Clinical control was made one day after treatment,three days after and a week after.Systematicly,these controls are made during three months,assessing the absence of symptoms and the presence of pain,swelling or fistula.
Radiographic controls were made too,starting from third month after treatment,to evaluate bone ossification.
Rezultats: The clinical examinations proved these cases asymptomatic. It is left to asses the remodeling of bone cavity which has to pas through three stages-intermediate,advanced and completed ossification,
Conclusion: The combination of conventional endodontico-surgical treatment and irradiation with diode laser is showing a very high clinical success.

29. ANTIBIOTIC ROOT CANAL FILLING PASTES IN TREATMENT OF TEETH WITH PERIAPICAL PROBLEMS

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Introduction: Teeth with infected root canals, particularly those in which the infection has spread around the apical foramen, is a common problem in endodontic. Bacteria play an important role in the initiation, progression and persistence of apical periodontitis. Endodontic therapy in this cases is aimed at the elimination of bacteria from the infected root canal and to prevention reinfection. In recent years has been developed the concept of lesion sterilization and tissue repair therapy that employed a mixture of antibacterial drugs used in root canal filling paste.
Aim: The aim of this study is to evaluate the use of antibiotic based root canal filling paste in endodontic treatment of teeth with periapical problems.
Method: We treated 30 mono and multiradicular teeth with root canal periodontitis. 15 of them were treated with non antibiotic paste and 15 were treated with antibiotic root canal filling paste(Endomethazone+ ciprofloxacin). The antibiotic used in paste was ciprofloxacin. All the other endodontic steps were the same in both groups. This is a 2 years followed up study. In all cases we took a radiography before and 6, 12, 18, 24 months after treatment. The study will be statistically analized.
Results: Repair of damaged tissues can be expected if lesions are disinfected. The group treated with antibiotic paste showed good result of tissue repair.
Conclusion: The use of antibiotic in root canal filling paste showed good clinical and radiographic success in endodontic treatment of teeth with periapical problems.

30. DIFFERENT TECHNIQUES FOR MANAGING THE CANAL OBSTRUCTIONS

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Introduction: Sometimes the full length of the root canal system may be inaccessible owing to an obstruction, which may be due to: a broken instrument, blockage of natural tooth substance or foreign material, a

ledge created during instrumentation. Obstructions may have hindered earlier efforts to achieve infection control and may be a primary factor in causing treatment failure.
Aim: The aim of this work is to describe different techniques used for the management of canal obstructions.
Methods: This work is based on contemporary literature about the application of different techniques and devices used from the clinician for the management of canal obstructions in clinical practice. There are many techniques for managing the canal obstructions but in this work we have described and compared the efficiency of the following techniques: Ultrasonic instrumentation, Masserann technique, Meitrac Endo Safety System and RuddleiRS Removal System.
Results: A variety of methods exists to manage canal obstructions. The choice is dependent on the type of material present and the access of the canal. Ultrasound typically supplemented by pulling or trephining devices, is a successful method to remove broken instruments. The Masseran technique is successful where there is adequate access and the root canal is relatively straight, but it sacrifices the dentine of the root canal. An effective technique, which often preserves apical root dentine, is to alternate between Masserann cutting and ultrasonic vibration. All techniques require care and patience from the clinicians.
Conclusions: Canal obstructions due to broken instruments, blockages, and ledges are usually a result of procedural errors. The clinicians should manage successfully an obstructed canal. To achieve a successful result, a combination of techniques may be required.

31. THE USE OF COMPOSITE VENEERS TO RESTORE FRACTURED TEETH. A CASE REPORT

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Aim: Each day, composite veneers are found to have an ever growing use in dentistry. This study aims to report a case of composite veneer restoration in fractured teeth.
Case summary: The patient Z.M presented at the "Aldent" University clinic after a trauma that resulted in fracture of mesial angles of maxillary central incisors. After radiological examination, we noticed that the fracture line was far from the pulp chamber. It was decided to treat the defects with composite veneers with an indirect technique of modeling. The chosen composite was Opalis of FGM Dental. The color evaluation for the restoration was done by dividing the vestibular surface into three parts and by using a spectrophotometer. The application of upper incisors veneers brought about best **Results:** in proper adaptation of the color and shape. An examination was performed after 3 and 6 months, and the color and shape were reassessed. They showed no difference from the time of the application.
Conclusion: The composite veneers result in minimal tissue preparation, lower cost againstporcelain veneers, as well as long lasting aesthetics.

32. THE SHADE OF THE MAXILLARY CENTRAL INCISORS IN YOUNG ALBANIAN SUBJECTS

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Aim: The aim of this study is to determine the most frequent shade of the maxillary central incisors in young Albanian subjects
Methods: 234 young patients were examined in Aldent University clinic, from 18-22 years old. The spectrophotometer Easy Shade Guide was used to determine the tooth shade. It is a digital shade taking system. It is designed to determine with precision, without any risk of error and in all situations the colorimetric data of a tooth.
Results: 114 patients out of 234, or nearly 49% showed A2 shade, 30 patients out of 234 or nearly 13% showed A1 Shade, 47 patients or 20 % showed A3 shade, 26 patients or 11% showed B2 shade and 17 patients or 7% showed A3.5 shade.
Conclusion: Determining the shade with Easy shade guide was considered an easy way in our study. The most frequent shade was A2, maybe because of the young age of the patients

33. DİAGNOSİS OF OCCLUSAL CARİES USİNG A LASER FLUORESCENCE METHOD İN PERMANENT TEETH

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Aim: Early diagnosis of caries is critical in the management of dental caries. The complex anatomy of the occlusal surface may complicate detection of the initial lesions. Laser fluorescence devices are recommended as an adjunct tool for clinical examination. The purpose of this study was to evaluate a laser fluorescence method and to compare it with the traditional diagnostic methods.
Methods: Two examiners assesed the occlusal surfaces of 102 molar and premolar teeth (16 patients) by visual inspection using International Caries Detection and Assessment System (ICDAS), radiographic caries assessment (bitewing projection) and DIAGNOdent

Pen (laser fluorescence, LFpen) methods. For the radiographic examinations, bitewing radiographs were taken for each side, comprising upper and lower molars (two radiographs for each patient). The LFpen method was carried out using a probe tip for occlusal surfaces. Two measurements of each site were performed and the mean value was recorded. The statistical analysis was performed by using the software programmes (SPSS 18.0, MedCalc 9.0.1.1, and Microsoft Excel) (p=0.05). Comparison of validity among all the diagnostic methods was made by estimating the Receiver Operating Characteristic (ROC) curves and the area under the curve (AUC).

Results: Regarding the two caries detection methods LFpen and bitewing examination, no statistically significant differences were found between their AUCs (p>0.05). Besides, the other caries detection method (ICDAS) was significantly different from LFpen and bitewing examination methods according to their AUCs (p<0.05). The inter-examiner reliabilities (Cohen's Kappa) were good for all the three diagnostic methods (p<0.05).

Conclusion: The **Results:** of this study suggest that visual inspection method for the detection of occlusal caries was more reliable. Further investigations should be carried out for the diagnostic accuracy of the laser fluorescence method.

ORAL PRESENTATIONS

34. THE CORRELATION OF THE COLOR IN MAXILLARY CENTRAL INCISOR

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Aim: The apparent color of the tooth is the result of the reflectance from the dentin modified by the apsorption, scattering and thickness of the enamel. The color of human teeth shows a gradation from the gingival to the incisal region.

Objective: This study was conducted to determine the correlation of the values CIE (Commission Internationale d' Eclaraige) L*a*b, C, H in three vestibular levels (Cervical, Middle, Incisal), measured by a spectrophotometer Vita Easyshade.

Methods: In this study were measured the L*a*b* values of 255 subjects, in maxillary central incisors of the left side. The color of the teeth was measured by spectrophotometer Vita Easyshade® (Vita Zahnfabrik, H Rauter GmbH & Co. KG, Bad Sackingen, Germany). It was used the program ***Tooth Areas***, that measures the cervical, middle and incisal areas of a tooth. The datas L*a*b*, C and H values were collected. The **Results:** were analyzed by Pearson coefficient of the correlation and Multiple Regression.

Results: The most frequent shade registered in the central incisors was 2M2. There were statistically significant correlation in three tooth segments Cervical/Middle, Incisal/Middle, Cervical/Incisal (p<0.05). The values for L*a*b*C H of three tooth segments were as follows: Cervical/Middle~L*(r=0.74), a*(r=0.45), b*(r=0.36), H(r=0.38), C(r=0.36); Incisal/Middle, L*(r=0.86), a*(r=0.70), b*(r=0.66), H(r=0.68), C(r=0.67) and Cervical/Incisal,~ L*(r=0.90), a*(r=0.69), b*(r=0.75), H(r=0.58), C(r=0.77).

Conclusion: The distribution of color was identified for three regions of the tooth. A statistical analysis determined that there are statistically significant color differences between the regions, and these differences are also clinically significant.

35. PREVALENCE OF DENTAL TRAUMA ON THE SYSTEM AND THEIR EFFECTS ON CHILDREN OF PRESCHOOL AND SCHOOL IN TIRANA

Alikaj Ersela

Children are a particular age group exposed to trauma in oro-maxillo-facial system.

Aim: Evidence of the prevalence of trauma suffered by children of preschool and school age.

Identify how they affect the further development of the dental system. Identification of some conditions and oro-maxillo-facial system anomalies more often associated with trauma to this region.

Comparison of the values found from this study ëith similar studies conducted in other places.

Methodology: By screening in some schools and kindergartens in Tirana with a cross sectional study determined the prevalence of trauma among the children of these ages. Data are collected, provided the number of children who have suffered trauma to the mouth region, prevalence is defined as the ratio of this number by the total number of children visiting. Having a similar epidemiological study conducted by University of Padova, Department of orthodontics, ëe made comparisons between the prevalence found by us and the prevalence found out by this study These values compared with respective values of study at the University of Padova. In both cases the comparison is done by presenting tables and graphs.

The study was conducted in several kindergartens and schools in the city of Tirana, during 2010-2011, and also are considered patients of this age present at the private clinic during this period.

Conclusions: Trauma have a significant frequency among children with a prevalence of about 30% Trauma suffered in childhood on dental system with important consequences in various subsequent development of this system

Some anomalies in the region associated with omf highest percentage of incidence of the prevalence of dental trauma on the system. Such is prognatia, coupled with incompetence labiale.
Prevalence values found from this study are similar to those found in studies conducted by colleagues of the University of Padova, 27 and 30%

36. CALCIUM SILICATE-BASED CEMENT USED IN DENTIN REPAIR

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Aim: To assess the ability of a recently developed calcium silicate-based cement to induce reparative dentine synthesis
a) Under a composite filling
b) In a direct pulp cupping
c) In endodontic repair

Methodology:
a) This cement is applied directly to contact with the tooth, without adhesive or conditioner as a new restoration of the posterior teeth in 27 patients, in our office with one year and a half follow-up. No one of the patients came back with complications so far. In 20of them, back in the office for other treatments, we have done the vitality test after almost one year, which resulted to be positive.
   Thanks to its excellent biocompatibility, it proved to be very well tolerated and for sure can be used as cavity lining with a permanent composite restoration.
b) Regarding the direct pulp cupping we have tried it in 15 cases. Only in one of them, it was needed to be done the root canal treatment after one week of the first session. In 10 of them we have done the vitality test after at least 9 months which resulted to be positive in all of them.
c) The endodontic indications are similar to the usual calcium silicate-based materials, like the Portland cements (i.e. ProRoot® MTA). Using it in 30 teeth (19 multiradicular and 11 monoradicular) we observed complet healing of the bone tissue after three months of treatment in each of the teeth.

As a conclusion calcium silicate-based cement is suitable as a dentine replacemet material whenever original dentine is damaged.

37. ORAL HEALTH KNOWLEDGE, BEHAVIOR AND HABITS OF ALBANIAN 12 YEARS OLD CHILDREN

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Aim: This study was carried out following an intensive oral health student–centered promotion program in all Tirana's schools and aims at describing the health behavior patterns and knowledge related to oral health (toothbrushing and dieting) of 12 years old Albanians.
Methods: An anonymous self-administered questionnaire was used in 18 (out of 41) randomly selected Tirana's secondary schools. The questionnaire was prepared based on the oral health promotion program. The international literature on the subject was also consulted. Gender differences were given special attention.
Results: Out of 465 respondents, 209 (45%) were females and 256 (55%) were males. 83.2% of females and 68.7% of males brush their teeth twice a day and 8% over all tend to brush more than twice daily. The main reason of brushing the teeth is to prevent tooth decay (71%), followed by "to have them white and shinny" (56%). 50.5% are aware of using a fluoridated toothpaste but only 43% know that fluoride helps preventing tooth decay. The main source of oral health related information remains the dentists (80.9%). Only 17.8% and 22% consume respectively sweet foods and sweet soda drinks several times daily. The most consumed food is fruits (77.4%); the most consumed drink is water (88.6%), followed by homemade juices (57.4%).
Conclusions: Overall, oral health knowledge and habits of 12 y.o. Albanian are good. Intensive oral health promotion of 2011 helped achieving the goal. Further work is needed to help a better collaboration from school's academic staff and parents, to reach the main final goal: "Creating a health promoting school".

38. THE FRACTURED INSTRUMENTS AND THEIR CORRECTION (CLINICAL CASES)

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Introduction: Often in clinical practice fractures occur instruments such as reamers, lima, lentylo, cutter gates - glidden or peeso – reamers etc.. This happens for many reasons such as the use of instruments more consumed, particularly the number 0.8, 10 or 15, not the exact sequence of using files; mechanical processing with particular strength in facing root canels etc.. Prior to this fact many dentists solve this problem by performing a tooth extraction.
Aim: The purpose of this demonstration is to show methods for correcting violations of broken instruments. Then we proceed the filling of the root canel, to maintain and gain a natural tooth.

Methods: The most frequent clinical cases that happen are two, for which we have applied these methods:

1. If the instrument is in the 1/3 apical root canel, we make passage of fractured instrument until the apical stopper, and making the broken instrument part of the filling. Bypass material is made by a small file No.10 or 15 with the aid of a lubricant such as EDTA.
2. If the broken instrument passes the apex, the best treatment would be the apical resection. And then we do the backward filling of the root canel.

Result: The cases will be demonstrated through x-rays realized for a two year period 2010-2011, in which cases are shown the broken instruments and their correct handling. With appropriate solutions in these cases are: removal of broken instruments, bypass the files and the apical resection.

Conclusion: In **Conclusion** of this demonstration,we note that when the instruments are fractured we should not think extraction as the first option. Always try to accomplish one of the methods mentioned and only after that, we proceed the filling of the root canel, maintaining and gaining a natural tooth.

39. THE FREQUENCY OF CURVED MESIAL ROOT CANALS IN THE FIRST MANDIBULAR MOLARS.

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Introduction: The root canal morphology presents numerous anatomical variations in almoust any group of teeth.Higer frequency of encounter in mesial canals of first molar mandibulare.These variations appear in the form of curves creating problems for the full processing canals and therefore we do not fill them completely.

Aim: The aim of this work consists in evaluating curves mesial canals of mandibular first molar on the basis panoramic X-rays of teeth treated.

Methods: We selected a considerable number of panoramic,around 300 cases with both first molar mandibulare endodontic treated.We chosen exactly the treated teeth to facilitate the distinction of different curves,filling level,the remote **Results:** after treatment,periapical condition.

Results: At 600 molar treated found 481(80%) teeth with root returned.Of these teeth,with curves localized in the middle of the root were found 337(70%) cases,while the solid curves somewhat localized at 1/3 apical found 144(30%) of cases.The latter also accompanied with obliterim of the apical foramen in 124(86%) of cases.

Under the condition of periapical we divided them in two groups:

-In the first group include teth with the light curves but does'nt inhibit the filling of canals.

120 -75,6% no periapical lesions
37 -24,4% with periapical lesions

-In the second group include teeth with fillings incorrect.

136 - 41% no periapical lesions
188 - 59% with periapical lesions

Conclusions: As resulting from our work,the curve of mesial root canals in mandibular molar are frequent. Given the fact that this is a work based on the data of X-rays and works are finalized by different dentists using instruments almost entirely of steel,we can conclude that the introduction of NiTi instruments will increase the number of successful endodontic therapy.

40. ENDODONTIC MANAGEMENT OF A FIRST MANDIBULAR MOLAR: A CASE REPORT

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Introduction: A clear understanding of the root canal anatomy of the human dentition is a pre-requisite for conventional endodontic procedures. Knowledge of the most common anatomical characteristics and their possible variations is fundamental because even one canal left untreated can lead to endodontic treatment failure. Therefore, the correct location, clean, shape and obturation of all canals are indispensable procedures.

Case report: This case report presents the treatment of a mandibular first molar with four root canals, of which 2 were located in the mesial root and two located in the distal root. A 60 year-old female patient, with noncontributory medical history, presented with a complaint of pain in the posterior left mandibular region for the past 3 months. Clinical examination revealed gingival recession, deep pockets between the teeth and the gums and a large composite filling of the left mandibular first molar. Radiographic findings revealed inadequate root canal filling and a large apical periodontitis lesion associated with the distal root of the mandibular left first molar.

Root canal retreatment was accomplished by combining mechanical and chemical processing with CPR ultrasonic instruments for finding calcified canals.

Root canals were treated by using Gates Glidden drills and K-files and irrigated by using EDTA 17% and NaOCl 5%. Root canals were filled with AH Plus as a sealer and Thermafil.

Radiographic and clinical reevaluations were made after 6 and 18 months.

Conclusions: The patient was reexamined after 6 and 18 months. Clinical and radiographic reevaluations demonstrated complete healing of the periapical lesion. Treating extra canals may be challenging but the inability to find

and properly treat root canals may cause failures. This clinical case illustrates the difficulties imposed by anatomic complexities in attaining a compatible disinfection level with the periradicular tissue healing.

41. MEASUMENTS OF BONE DENSITY AFTER APICOTOMY AND IMPLANTATION OF BIO-OSS

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Bony defects of mandibular and maxillary ridge are usually of iatrogenic origin.
This comparative study was designed to distinguish differences of healing process with and without Bio-Oss, trends of healing after 1, 6 and 12 months, always using radiographic analysis of densitometry.
30 patients (17 male and 13 female), diagnosed with periradicular bone defect, where included.
Surgery was based on Peter's protocol, and as indicated the retrograde amalgam obturation of root canal has been done.
Follow ups where done 1, 6 and 12 months after initial surgery.
30 Patients were divided in two groups consisting of 15 cases. In the first group (study group), bone defect was filled with Bio-Oss after apicotomy, and in the second group (control group) bone defect was left without Bio-Oss after apicotomy.
Periapical radiographs with Kodak 2100 generator and RVG 5100 digital x-ray sensor where done before, immediately after and 1, 6 and 12 months after surgery.
Each radiography was evaluated for densitometric values, using "Densitometric Analysis" software of Kodak Dental Imaging Software 6.11.7.0. Level of Brightness in radiography is measured with scales between 0 to 255.
Based on Clinical parameters, successful healing was found in 26 patients (14 patients in study group and 12 patients in control group), and slowed healing in 4 patients (1 in study group and 3 in control group). Increase of bone density was evident in 24 patients and slowed increase of bone density in 6 patients.

42. CLINICAL EXPERIENCES IN ADAMANTINOMA TREATMENT

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Aim: The purpose of this study is clinical presentation of 19cases of adamantinoma 14 mandibular and 5 maxillary treated at the University Clinic for Maxillofacial Surgery in Skopje during 1994-2011, with the emphasis on the gender, age, type of operation, reccurence and follow-up review.
Methods: This was a retrospective clinical study in a consecutive series of 19 patients during the year 1994-2011 treated at the University Clinic for Maxillofacial Surgery in Skopje. All the patients were treated operatively and diagnosis was confirmed histopathologically requiring specialized techniques. Evaluation was clinically and radiographically after surgery.
Results: There were significant differences in the age of the patients. The youngest was 8 years and the oldest was 85 years old (most frequent group between 40-50 years of age). Although the tumor can occur in any age and has been described in the literature in patients as young as 21 months, most patients present in the third or fourth decade of life. Significant differences were found in male to female ratio:4male(74%) and 5 female (26%). According to prevalence in the involvement of region most of the tumors occur in mandible 14(74%) and 5(26%) in maxilla. Normal postoperative function and satisfactory esthetic results were found in majority of patients.
Conclusions: Based on results of this study the youngest patient is 8 years and the oldest is 85 years old. Significant differences were found in male to female ratio: with male (74%) dominance. Most of the tumors occur in mandible 14 (74%). No malignancies were found. Treatment must be guided of the behavior and growth potential of the tumor, anatomic site, size and pathohistological analysis. (Total removal with surgical procedure and postreatment follow up of the patient is necessary).

43. RETROSPECTIVE CLINICOPATHOLOGICAL STUDY OF ODONTOGENIC CYSTS IN SOUTHEAST REGION OF TURKEY

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Aim: The purpose of this study was to analyze the prevalence, and clinic, and radiologic features of odontogenic cysts in southeast region of Turkey.
Methods: This retrospective study was carry out in 130 cysts of the jaw diagnosed among 271 individuals who were taken biopsy in our department from October 2008 to December 2011. All cysts were treated by enucleation, marsupialization or combination, and all cases were histologically examined.
Results: 128 cases were classified odontogenic, 2 were non-odontogenic. There were 76 cysts (58,5%) in men, 54 (41,5%) in women. The mean age was 32,9 years. We

found 61 cysts (25 F, 36 M) in the maxillary, and 69 (31 F, 38 M) in mandible. It is observed that 81 were radicular cysts (62.4%), 37 were dentigerous cysts (28,5%), 6 were odontogenic keratocysts (4%), 4 were residual radicular cysts (3%) and 2 were nasopalatine cyst (1%) respectively. In radicular cysts, 48 of them (36%) were located in the anterior region of the jaws; 22 dentigerous cysts and 4 odontogenic keratocysts were found in the posterior region of mandible.
Clinically, the chief complaint of patients was expansion and pain. Radiographically, scalloping of the lesion between the teeth was found in 1 case, root resorption was seen in 3 cases, and displacement of the teeth and follicles was observed in 15 cases.
Conclusions: We found similar incidences with literature and concluded that poor oral hygiene and socioeconomic status are related incidence of cysts.

44. LOWER LIP CARCINOMA- DETECTION OF NECK METASTASIS AND TREATMENT

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Aim: Squamos cell carcinoma of lower lip is one of the most frequent malignant pathologies in maxillofacial region. Lip cancer is the second most frequent, after skin cancer.During the period of fifteen years in our department we have treated 789 patients with SCC of lower lip. Majority were males (89%). The patients with T1 and T2 had better prognosis. The aim of our research is to find the better method for detecting metastases in the neck in patients with squamos cell carcinoma of the lower lip and to chose the better treatment for those patients.
Methods: All the patients admitted in the Department of Maxillofacial Surgery with squamos cell carcinoma of lower lip, 2008-2010 with T1-T3, N0 have been analyzed with the special methods not used before in our Department. For detection of possible metastasis in the neck In patients with negative neck we have done RMI, CT scan, Ultrasound and Lymphoscintigraphy (LSG). LSG has been made the day of surgery with Tc99m-Sncolloid dissolved in 0.3 ml of saline solution applied at 4 peritumoral sites. After detection the sentinel lymph node was extirpated and biopsy has been done.
Results: In our study only 10 % of patients where female. The most accurate method for finding cervical lymph nodes in our study was Lymphoscintigraphy. With lymphoscintigraphy lymph node were detected in 81% of patients. After SNB positive results were found in 33% of patients. 41% of patients in which LSG was positive had positive SNB. LSG positive with 94.1% in Submental Region Was. Patients with T2 carcinoma more than one year in 50% of Cases were with positive SNB. More accurate method for finding sentinel nodes was Lymphoscintigraphy
Conclusion: In our study lymphoscintigraphy combined with emediate biopsy of sentinel node shows very good.
Results in the treatment of Lower lip carcinoma T1-3, N0.

45. IS DIODE LASER THE BEST CHOICE IN ORAL SOFT TISSUE THERAPY?

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Aim: To evaluate the safety and efficacy of an 810-nm diode laser for treatment of benign oral soft tissue disorders (simple oral soft tissue surgery, white lesions, vesiculobullous lesions, pyogenic granuloma, etc.).
Methods: A total of 27 patients who had different benign oral lesions were treated with an 810-nm diode laser.
Simple oral soft tissue surgery: Eighteen patients (10 epulis fissuratum and 8 labial frenulectomy) were treated with an 810-nm diode laser. All lesions had been diagnosed through clinical examination, and treatment with diode laser surgical intervention had been decided. The fluence level was 5-10 j/cm^2 (W); a high-power continuous wavelength laser with a spot size of 2mm was used.
Treatment of oral white and vesiculobullous lesions: Five patients (4 white lesions and 1 vesiculobullous lesions) were treated with an 810-nm diode laser. A histopathological study was performed to confirm the clinical diagnosis in the preoperative period. The fluence level was 10-15 j/cm^2 (W); the high-power continuous wavelength laser had a spot size of 2 mm.
Pyogenic granuloma: Four patients were treated with an 810-nm diode laser. A histopathological study was performed to confirm the clinical diagnosis in the postoperative period. The fluence level was 10-15 j/cm^2 (W); a high-power continuous wavelength laser was used, and the spot size was 2mm.
Results: Healing took place within two weeks in simple oral surgery. The white and vesiculobullous lesions healed completely within six weeks. Pyogenic granuloma patients healed within four weeks.
Conclusions: The use of lasers, especially diode lasers, in general dentistry is now an accepted treatment aid, with a wide range of applications in oral soft tissue surgery.

Patient acceptance and satisfaction without compromising health and function have been found to be of a high degree. Thus, we can say that the use of the 810-nm diode laser may indeed be the best choice in oral soft tissue surgery.

46. DIFFERENT TECHNIQUES IN FABRICATION OF OCULAR PROSTHESIS

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Introduction: Loss of an eye caused by cancer, trauma or congenital defect creates a deep psychological impact on an individual's life especially social and professional life. Custom made prosthesis versus stock prosthesis give better fitting the eye socket, cosmetic and less discomfort to the patient in long term. The main objective of this article is to describe three different alternative and practical techniques of fabricating custom made ocular prosthesis.
Case report: An impression of anophthalmic socket was made with an addition cured silicone based precision impression materialin all techniques.A master cast was prepared and duplicated with condensation silicone. A self-cure acrylic resin was polymerized in the silicone model and tried in the patient's eye socket.A digital photograph of the patient's iris was made using a digital camera and printed on good quality photo paper in various shades and sizes in the first and the second techniques. Then the photo paper was coated with PVC not to allow any color flowing.The proper iris was then inserted to acrylic base. The prosthesis was final processed using orthodontic heat polymerizing clear acrylic resin.
In the other technique,after trying in process with wax pattern, an acrylic base was fabricated using the heat polymerizing scleral acrylic resin. The prosthetic iris was fabricated from a transparent contact lens by painting the lens with watercolor paints and attached to acrylic resin with tissue conditioner. The final process was made with heat polymerizing transparent acrylic resin.
Conclusions: Custom made prosthesis allows better esthetic and functional results to the patient in comparison to stock prosthesis. Further follow up is necessary for a check of the condition and fit of the ocular prosthesis in such patients.

47. KERATOCYSTIC ODONTOGENIC TUMOUR: A CASE REPORT

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Introduction: The odontogenic keratocyst (OKC) is a cystic lesion of odontogenic origin, which is classified as a developmental cyst derived from the dental lamina. This lesion was first described in 1956 by Phillipsen. OKCs may occur in any part of the upper and lower jaw, with the majority occurring in the mandible, most commonly in the angle of the mandible and ramus.. Radiographically, it appears as a unilocular or multilocular lesion with a scalloped contour. Ahlfors et al. Have already asked the question 'The odontogenic keratocyst: a benign cystic tumour?' to the maxillofacial clinicians in the 1980s. The World Health Organization (WHO) gave us the answer in 2005 by reclassifying 'odontogenic keratocyst' (OKC) to 'keratocystic odontogenic tumour' (KCOT). Various treatment modalities have been tried for the successful treatment of the KCOT, ranging from simple enucleation to resection, but none has been regarded as the ideal treatment.
Case report: A 43-year-old female patient was attempted for mandibular anterior prosthetic rehabilitation. She had no any systemic disease. A huge radiolucent lesion was detected during routine radiographic examination. An incisionel biopsy was made. Histologically it was compatible with KCOT.
Conclusion: KCOTs may expand without any clinical symptoms. Because of that the clinicians have to take radiography from the areas of missing teeth especially third molar areas. The differential diagnosis should be made with uniloculary or multiloculary ameloblastoma, central giant cell granuloma, odontogenic myxoma or dentigerous cysts. The diagnose of KCOT includes localization, progression and radiological signs of the lesion. The patient's age is also important for the diagnosis. Various treatment modalities could be choosen but it has a high recurrence potential.

48. ODONTOMS AS MECHANICAL BARRIER TO THE EMERGENCE OF PERMANENT TOOTH

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Odontom term first used by Broca in 1868, which is a rare entity in the group of benign tumors.
Odontoms are tumors that epithelial component and mezenkimale in embryonic tissue of the tooth reaches full differentiation, and as a result of this odontoms consist of: Enamel, Dentin, Cement and Pulp.

Considering the few studies that have been made to Odontoms compared with studies that have been made to other injuries odontogenic origin, the purpose of this is to analyze Odontoms in relation to localization, representation and diagnosis.
Methods: Cases were located in the middle and lateral part of the upper jaw, and for which the dilemma exists that this change represents Odontoms or Meziodens. In determining the localization are used a small intraoral radiography and Panoramix X-Ray.
Therapy in all cases is surgical and ends with fully removal of Odontom along with the surrounding tissue.
Results: With Odontom surgical removal is possible the emergence of permanent teeth regularly.
Conclusion: To establish the correct diagnosis for Odontoms is necessary X-Ray records and patohistological analysis. The only therapy for Odontoms is complete removal with surgery intervention.

49. IMPLANT TEMPORARY ESSENTIAL FOR AN ESTHETIC RESULT IN THE COSMETIC AREA

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The purpose of this study is to show the importance of an implant temporary on molding soft tissue to create an ideal gingival level. Achieving proper contour of an implant-supported crown is essential for an esthetic result, particularly in the maxillary anterior area.
This clinical report demonstrates a simplified method that precisely controls the facial gingival and proximal soft tissue contours for implant-supported, metal-ceramic crowns in the aesthetic zone, using the cervical anatomy of the adjacent or contralateral tooth as a guide.
Increasing facial bulk will create a more scalloped gingiva, and increasing interproximal counter will cause the papilla to move coronally. Prosthetic replacement of the missing single anterior tooth with an implant-supported crown represents a profound aesthetic challenge for the restorative dentist, laboratory technician, and surgeon.
Conclusion: Implant integration with the bone, using a screw retained temporary will be the best way to mold the tissue for best esthetics results.

I want to thank ATRA Tech Dental for their help and support in preparation of this work.

50. THE RETENTIVE FORCE ON DOUBLE CONICAL CROWN ON IMPLANTS - PILOT STUDY

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Intoduction: Double crowns are basicaly a system of two separate crowns, where the iner crown is cemented on the tooth, or fiksed to the implant, while the outer crown is placed in a prosthesis or a removable bridge.
Aim: Aim of this studie was to determine the retention force on double conical crown in the Ankylos SynCone concept,at the begining of the use, during and after 10,000 cycles.
Method: In this study we have used a SynCone conical abutment made of titan whit 5° angle and 1.5 mm gingival hight, inserted on the implant, as the iner part of the conical pair. For the outer part of the conical pair we have created five groups. First group was a prefabricated outer conical cap made of titan, second group prefabricated cap made of gold, third group the outer cap is made of a laboratory frased titan, the fourth group the outer cap is made of casted gold, and the fifth group the outer cap is made of semiprecious material. For this study we have used a dynamometer for the separation cycles. All the conical pairs have been submitted to 10,000 separation cycles. The retention force has been measured after each 1,000 separation cycles.
Coclusion: As expected the best results have shone the conical pair made both from titan, although the other pairs were not significantly worse in they retentive force.

51. EVALUATION OF THE METAL SHAVE IN THE DRILL TUBE CONTACT OF STEREOLITHOGRAPHIC SURGICAL GUIDES

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Aim: Research and experiences have suggested that the success of dental implants depends on a well-developed and detailed treatment planning approach. Computer-aided oral implant planning and surgery offers several advantages over the traditional approach and can be used routinely in implant dentistry. However, with conventional stereolithographic surgical guides a metal shaving in the drill-tube contact can be occur. The aim of this study was to evaluate the metal shaving amount not only from the tube but also from the implant drill which can be impede osseointegration.
Methods: 30 stereolithographic surgical guide metal tube (Ay Tasarim, Kosgep, Ankara) with an inner diameter of

2.00, 3.40, 4.05mm and 30 implant drill (Twist drill, Astra Tech Inc., Waltham, MA, USA) with a diameter of 2.00, 3.20, 3.85mm were used in the study. All of the metal tubes and drills were used 16 times and the metal shaving from both tube and drill calculated with a digital balance (WANT Balance Instrument Co., Jiangsu, China) by measuring the weights of the drills and the tubes before and after drilling phase. The weight differences were statistically evaluated.

Results: In the first usage of 2.20, 3.40, 4.05mm metal tubes a mean metal shaving of 0.0034g, 0.0021g, 0.0036g observed respectively. However in the 16th usage the results showed a mean metal shaving of 0.0020g, 0.0007g, 0.0019g respectively which was statistically different from the first usage ($p<0,005$). When metal shaving from the drills compared, in the first usage there were a mean metal shaving of 0.0027g, 0.0032g, 0.0032g respectivelyin 2.00, 3.20, 3.85mm twist drills. However in the 16th usage the results showed a 0.0006g, 0.0004g, 0.0003g mean metal shaving respectively which was also statistically different from the first usage ($p<0,005$).

Conclusion: There were metal shavings in the drill tube contacts which were statistically higher in the first usage.

52. IMPLANTS IN THE HEAD AND NECK CANCER PATIENTS

Branchi Roberto*, Menkulasi Dorina, Haxhiu Alban, Dylgjeri Genti, Bodoj Anila, Giorgetti Roberto

Introduction: The purpose of this oral presentation is to show some prosthetic clinical cases treated in the department of maxillofacial prosthetics of the University of Florence (Italy). In some cases the prosthetic treatment involves the use of osseointegrated implants, without which it is impossible to achieve a successful prosthesis. The prosthetic implant therapy is not always the best solution for the patient, although in some cases it is the only option, as it happens in oral cancer patients.

Methods: The use of implants in head and neck cancer patients has started in our department in 1997, and this report includes complex cases with and without fixtures.

The use of osseointegrated implants, as clearly shown by the literature, is not problem free, especially if the treated patient has undergone a treatment with radiation doses greater than 60 grays.

As far as the chemotherapy is concerned, once the effect of the drug has been disposed off it does not leave outcomes (unlike radiation therapy), so, in order to proceed without major risks, it is sufficient to wait until the patient has normal blood tests. In this report is also considered the controversial effect of the use of hyperbaric oxygen therapy.

Results: Granstrom's axiom: "Patient selection is always important, and especially when the patient has been previously irradiated; informed consent must include discussion of alternative treatments". It is essential to have at least acceptable results, which are represented above all by the life time of the implant prosthetic therapy.

Conclusions: Not always the prosthetic implant therapy is the best for the patient, although in some cases it is the only option. For cancer patients, when prosthetic implant therapy is not feasible, the skill in prosthetic treatment is the only remaining possibility.

53. IMPLANT PLACEMENT IN MAXILLARY SINUS AREA.OUTCOME OF 17 CASES WITH SINUS LIFTING

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Aims of Study: Alveolar bone absorption after missing of tooth leads to problems when placing posterior maxillary implants. Because of sinus lifting, an unfavorable architecture of the maxillary sinus no longer contraindicates the implant placement.Many investigators have examined the ways to improve bone quality and quantity and the success rates differ for different bone grafting materials.

Method: This study included 17 patients who underwent maxillary sinus floor elevation during implant placement in the maxillary molar area from 2007 to 2010. The patients were followed up for at least 2 years after completion of the prosthesis. There were 15 males and 2 females,with an overall mean age of 53.6 years. In total,34 endoseus implants were placed.

Results: This study evaluates the success rate of implant after sinus grafting with autografts,xenografts and b-TCP. From 2007 to 2010, 34 endosseous implants were placed in 17 patients at ***"Albdental"*** private practice using sinus lifting techniques.The survival rate for the implants was 91.1%.

Conclusion: At the last follow-up, 31 implants remained attached to the upper prosthesis with no radiological or clinical signs of inflammation or mobility.The most common implant diameter was 3.8.The most common and successful augmentation material used was autograft+b-TCP.

54. THE USE OF TECHNOLOGY TO DERIVE MANDIBULAR ALVEOLAR NERVE IN IMPLANT SURGERY.

Mavriqi Luan
Brianza dent. Albania

The aim is the appreciation of the tactic of the inferior alveolar nerve's bypass using the advanced technol-

ogy (3D x- ray and piezosurgery) in cases of treating with implant prosthesis of emphasized mandibular atrophies. This device enables the oral surgeon to avoid overstretching the nerve by creating a smaller bone window with an crestal open and using an apicocoronal inclination of instruments to capture the neurovascular bundle.

The material and the method used: The patients being treated were 3 females and 9 males. The age varied from 47-60 years. The general situation was good. 2 of the males were being cured for diabetes and 2 of the females and 3 other males took medicaments for hypertension (adrenaline-less anesthesia was used). These patients, 7 of whom showed lack of bilateral teeth in the mandible and used skeletal prostheses and 5 of them had a total lack of the teeth and used total movable prosthesis.

Results: After the intervention the patient was advised to keep in touch about the reaction after anesthesia for the confirmation of the situation as normal or not. 1 of 12 patients showed a slight paresthesia of the lip, which got better after a two weeks time. The other patients had a normal reaction and after a period of 3 months these patients were prothesized with fixed work.

Conclusions: The use of piezosurgery reduce the overall surgical time, it allows better surgical control over the neurovascular bundle. This technique brings up several risks like the temporary or permanent damages of the inferior alveolar nerve, but the use of RO 3D provides us a full map of the nerve's transfer and the direct application during the intervention provides a reduction of the damage,probability.

55. SINUS LIFTING USING THE ARTIFICIAL BONE BOND-BONE WITH THE INTENT OF DENTAL IMPLANTING

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Purpose: Embedding of dental implants requires an abundance of bone in height and width. In the rear section of the maxilla, the stability is limited due to the insufficient volume of bone and the lower maxillary sinus. In this case, elevating the maxillary sinus floor is the best treatment method. The purpose of this project is to present the efficiency of the artificial bone Bond-Bone in the treatment of cases with sinus lifting with the intent of dental implanting.

Method: After clinical and radiological examination of the respective impacted region in the treated cases, various combined surgical interventions were performed, while simultaneously elevating the maxillary sinus with artificial bone Bond-Bone and embedding the dental implant. All surgical interventions were performed using a local anaesthetic.

Results: In the treated cases, surgical operations were performed without any complications. On the first post-operation visit, the expected normal pain levels were experienced with minimal edema. The cleanliness of the operated area was satisfactory, no presence of flap dehiscence was observed.

Conclusion: It was determined that in case of lowered maxillary sinus and the lack of bone mass in the alveolar edge, with the application of the alloplastic materials, one can successfully achieve the elevation of the maxillary sinus while gaining enough height to embed the dental implant.

56. A COMPARISON OF THE GENERAL CHARACTERISTICS, SHAPES AND FUNCTION OF SEVERAL IMPLANT SYSTEMS.

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In our days there is a large number of dental implant systems that strive to solve the problematic of partial and total edentulia. They evolve rapidly and it is not exactly known their long-term effectiveness and full capacity of their use.

Aim: This study aims to precise the data over the general characteristics, real treatment possibilities and longterm function of the studied implant systems.

Methods: The data was gathered from 30 patients implanted with 5 different implant systems: TMI True Max Implant, Fornili implant, Miss Seven, Leader italia, I.T.I. Dental Implant System Straumann, in a total of 108 implants. The patients were standardized through lab analysis within normal systematic parameters. They were treated with a different number of implants of one or more implant systems. The used implants were mono and biphasic and the prosthetic treatment was fix and removable.

Results: Priorities of certain used systems were noticed. From the surgical point of view some systems offer an easier technique due to the rich and precise instrumentarium and also the more apprehensible work protocol. About the prosthetic they represent a larger variety of abutments, different impression taking technique and lab ease, especially in the complex cases. This depends on the rich instrumentarium and the ease of use of them.

Conclusions: Implants should solve edentulies with as much variety of choices as possible. This includes the ease of use and the the possibilities in choosing a superstructure that achieves maximal esthetics. Also they should allow a choice between fix and removable

prosthetic solution. Some of the studied systems can't achieve this due to the difficulties in the implant-fixture connection, also the creation of an esthetic gingival area. Also they should think about the longterm changes and modifications especially in the gingival area after several years.

57. PERIOSTAT AS A HOST MODULATORY AGENT IN THE MANAGEMENT OF CHRONIC PERIODONTITIS

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Aim: Host (response) modulation is a term recently introduced in Dentistry. In a periodontal context it means the regulation of the destructive sequence of events implicated in the inflammatory host response. Periostat (SDD: subantimicrobial dose doxycycline-20mg) is the only systemically administered host modulatory agent that has been approved by the Drug Administration. The aim of this presentation is to analyse the evidence supporting the clinical use of periostat as an adjunct to the treatmemt of chronic periodontitis.
Methods: A literature review was carried out using the database MEDLINE via OVID and WEB of KNOWLEDGE from 1990 to date, limited into English-written papers only. The key words used were: host modulation, host response, chronic periodontitis, periodontal disease, scaling and root planing (SRP), periostat, SDD and subantimicrobial doxycycline.
Results: Periostat is a potent host modulatory agent. The biologic concept of using the systemic administration of Periostat as an adjunct to SRP is mainly based on its ability to downregulate the metalloproteinases and several cytokines (IL-1, IL-6, TNF-a). Thirteen Randomized Controlled Clinical trials and four meta-analysis investigating the efficacy of the above regimen were found in the literature. All studies demonstrated greater improvement of the clinical parameters for the combination of SRP and Periostat than for SRP+Placebo. Specifically, SRP+Periostat resulted in significantly greater gain in clinical attachment level and significantky greater reduction in probing depth than SRP+Placebo. SDD does not have antimicrobial properties. It does not lead to the development of resistant microbial species or multiantibiotic resistance. The incidence of adverse events is low.
Conclusions: There are indications that the addition of SDD to SRP might improve the clinical results obtained with SRP alone in chronic periodontitis. More well-designed long-term, placebo-controlled randomized trials are needed to confirm the above findings.

58. A SYSTEMATIC REVIEW ON THE PERI-IMPLANT MUCOSITIS TREATMENTS IN HUMANS

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Background: Peri-implant mucositis, the inflammation of infective nature, confined in peri-implant soft tissues only, affects 39.4-80% of patients restored with dental implants. Its reversibility has been demonstrated but if left untreated it evolves in peri-implantitis, the irreversibly progressive peri-implant bone loss, till now not having any predictably successful treatment, ultimately causing implant failure. The importance of peri-implant mucositis effective diagnosis and treatment is evident.
Aim: The objective of this review is to provide a summary of the available data regarding the effectiveness of peri-implant mucositis treatments in humans, parameters used for the diagnosis and treatment effect evaluation as no previous study exist on this topic.
Materials: A literature search for RCT and observational studies of peri-implant mucositis treatments in humans was conducted on Pubmed up to November 2011. The available studies were evaluated using CONSORT and STROBE checklist and data compared with regard to the parameters used for the diagnosis and treatments effect evaluation. This review was written following PRISMA checklist.
Results: Among 29 studies found, only 5 fulfilled the selection criteria. Mechanical, chemical (CHX, triclosan dentifrice) and abrasive sodium carbonate air-powder treatments were the treatments studied. Diagnostic parameters reported were BOP, PPD, MB (marginal bleeding), GI and absence of peri-implant bone loss, while the effect of treatments was evaluated based on PPD, PAL, GI, BOP, MB, PI, total DNA count changes. Only one study reported biochemical analysis. An evident heterogeneity characterized the methods used for the report of the diagnostic and treatment effect evaluation parameters, as well the follow-up intervals.
Conclusions: Authors emphasize the need for an increase in quantity and quality of studies on peri-implant mucositis treatment, suggesting marginal bleeding and inflammation mediators as main parameters for an objective diagnosis and treatment effect evaluation. PII would be valuable for oral hygiene monitoring.

59. LIGNEOUS GINGIVITIS: A LITERATURE REVIEW AND A CASE REPORT

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Introduction: Ligneous gingivitis (LG), also known as destructive membranous periodontal disease is a rare periodontal condition. While first LG case was published by Frimodt-Moller at 1973, ligneous conjunctivitis was first described in 1847 by Bouisson. It is characterized by nodular gingival enlargement with ulcerations. Usually conjunctival and gingival lesions were observed together and have same histopathological changes.
Case summary: A 32 month-old female patient with ligneous conjunctivitis, was referred to Gaziantep University, Faculty of Dentistry, Department of Periodontology clinic with the diagnosis of spread gingival enlargement at the mandible and maxilla. These gingival enlargements were painless, hyperemic, nodular, woody-like and covered by pseudo membrane. Radiographic evaluation showed normal alveolar bone and no attachment loss. Hematological analyses showed an increase in white blood cells (WBC), and increase in lymphocytes but decrease in neutrophils.
Conclusion: As far as we know this is the youngest case reporting ligneous gingivitis after Frimodt-Mollers' case. Although most of the case reports focused on histopathological change and level of plasminogen in these patients, up to now exact information about pathogenesis of LG and/or LC is not available in the literature. Question of the researchers about how to manage and effectively treat this disease remains unclear.

60. THE EFFECT OF PROGESTERONE ON GINGIVAL HEALTH IN PUBERTY GIRLS

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Introduction: The growing number of evidence suggests that periodontal tissue reactions are modulated by the action of sex hormones. Clinical phenomena described during periods of hormonal changes confirm the prevalence of gingival disease with fluctuating levels of sex hormones, even under conditions when oral hygiene remained unchanged.
Aim: Top of FormTaking into consideration the involvement of sex hormones in numerous physiological processes in the body and their participation in keeping gingival health, we have set the goal: to determine serum and salivary levels of progesterone in girls at puberty age with and without signs of gingival inflammation; to determine the gingival status among puberty girls through recording the gingival index values and to determine the possible influence of progesterone on gingival health.
Methods: The study included 30 girls between the ages of 11 to 14 years with diagnosed gingival inflammation and an equal number of girls with no signs of having gingivitis as a control group. I both groups we evaluate gingival health through clinical examination of gingival indices. Serum and salivary concentrations of progesterone were evaluated with RIA method.
Results: The results we got, indicate the presence of gingival inflammation. Analysis of correlated values, indicating a positive correlation with all index values, especially emphasizing the influence of progesterone on gingival bleeding (r=0,82).
Conclusion: The obtained findings, indicate the strong influence which progesterone manifested on gingival health, which in turn should be incentive for dentists for more active involvement in the prevention of this frequently disease in young girls at puberty age.

61. ASSOCIATION BETWEEN PERIODONTAL PARAMETERS AND SERUM INFLAMMATORY BIOMARKERS.

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Aim: Oral-systemic disease connections have become a major concerns because oral infections and conditions may contribute to pathologic processes elsewhere in the body. The aim of this study is to investigate association between periodontal parameters and serum inflammatory biomarkers.
Methods: The study involved a group of 75 patients with periodontitis and 25 patients without peridontitis admitted to the Department of Periodontology and Oral Medicine, University Dentistry Clinical Center of Kosovo, Prishtina. The following periodontal parameters were evaluated: the Löe-Sillness gingival index (0-3), the Sillness-Löe dental plaque index (0-3), the probing depth (mm), the clinical attachment level (mm), the bleeding index and the tooth mobility index. The laboratory parameters included: interleukin-1 beta (IL-1β), interleukin-6 (IL-6) and tumour necrosis factor-alpha (TNF-α) assessed via Enzyme-Linked ImmunoSorbent Assay (ELISA). Intergroup significance was determined with the statistical package R; specifically, we used the Student's t-test, x^2-test and Mann-Whitney test.
Results: The study showed raised mean values for IL-1 β, IL-6 and TNF- α in the periodontal disease group compared with control group. The concentrations of each protein (control group vs. periodontal disease group) were as follows: IL-1β (2.1 ± 2.2 vs. 7.0 ± 11.6, respectively), IL-6 (1.9 ± 1.6 vs. 3.7 ± 4.4, respectively) and TNF- α (64.6 ± 72.3 vs. 80.0 ± 73.1, respectively). The differences

between the groups showed statistical significance at p < 0.05.
Conclusions: Periodontal disease was associated with increased circulating concentrations of IL-1 β, IL-6 and TNF- α.

62. GINGIVAL RECESSION TREATMENT THROUGH GUIDED TISSUE REGENERATION METHOD WITH COLLAGEN MEMBRANE

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The surgical correction of gingival recession is aimed to recreate the normal anatomy of the mucogingival complex and regenerate the tooth attachment, including the cement with the connective tissue fibbers and the alveolar bone on the exposed root surfaces.
The aim: The aim of this study is to assess the clinical performance of the collagen membrane usage in the surgical treatment through guided tissue regeneration of the gingival recession.
Methods: 20 patients who were seeking for treatment in the private practice participated on this study. They were chosen for Miller Class I and II defects in the mandibular anterior region. They were divided into test group, who got treated with collagen membrane, and control group. Pre and post evaluation of the below mentioned parameters were performed: Plaque index (PI), gingival index, recession depth, probing depth and percentage of root coverage.
Results: The test group showed root coverage of 58.2%, whereas the control group showed coverage of exposed group 49,6%. Probing depth was reduced into 0.5 mm in the rest group, but was increased into 0.6 mm in the control group (p< 0.0001). no differences were seen in plaque index or gingival index between groups.
Conclusions: These results showed that the collagen membrane can be effectively used in guided tissue regeneration method for the treatment of gingival recession.

63. TREATMENT APPROACHES IN PATIENTS WITH AGGRESSIVE PERIODONTITIS

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Introduction: Aggressive periodontitis results in rapid destruction of the periodontium and can lead to early tooth loss in the affected individuals. The diagnostic features of the disease are characteristic, but the clinical presentation and patterns of destructions may vary between patients. Due to the fact that both the patient and the clinician's objective is the sustainability of fully functional teeth, the treatment planning turns to be sophisticated.
Aim: The purpose of this study is to examine different approaches in the treatment of generalized and localized aggressive periodontitis.
During November 2009- November 2011, 10 individuals attending the Ankara University, Faculty of Dentistry, Department of Periodontology were included in our study. The patients mean age was 29.7 (18-36). Patients' clinical periodontal indexes and radiographical examinations were obtained. Only from the teeth where attachment loss was detected the mean pocket depth was 5.3mm and BOP(+) was 29%. After the evaluation of the data according to the severity of periodontal tissue loss, non-surgical and different surgical treatment phases were completed, including the usage of biomaterials and guided tissue regeneration techniques and implant surgery. Only in one patient due to 25- OH vitamin D deficiency, oral intake of vitamin D_3 (Devit 3) was recommended. Afterwards all the patients' long-term follow-up was arranged.
After treatment, it was observed that the pocket depth was reduced to 3.15mm and BOP(+) 11%. The patient using Devit 3 resulted a better recovery.
In these case series, besides surgical and non surgical treatments it was also described alternative treatment options such as the supportive vitamin D usage. Among factors affecting treatment success, oral hygiene plays an important role in patients diagnosed with aggressive periodontitis.

64. EFFECTS OF CHRONIC PERIODONTITIS ON OXIDATIVE STATUS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Aim: Rheumatoid arthritis (RA) and chronic periodontitis (CP) are the most common chronic inflammatory diseases and have remarkable pathological similarities. The aim of this study was to investigate the impact of periodontal inflammation on oxidative stress in patients with RA by evaluating the serum total antioxidant status (TAS), total oxidant status, oxidative stress index, levels of lipid hydroperoxides, the activities of paraoxonase, arylesterase, and ceruloplasmin, the level of prolidase, and total sulfhydryl groups.
Methods: For this comparative study, the following four

groups were composed of 20 subjects each (80 subjects total): RA with CP (RA-CP), RA-periodontally healthy (RA-C), systemically healthy with CP and both systemically and periodontally healthy (C). Demographic, periodontal, rheumatological, and serum oxidative parameters and prolidase levels were evaluated.
Results: Oxidative stress index values of the RA-CP group were statistically significantly higher than in the C group ($p<0.05$). Prolidase levels of the CP, RA-C, and RA-CP groups were statistically higher than in the C group ($p<0.001$, $p<0.05$, and $p<0.001$, respectively).
Conclusion: Considering the study's limitations, CP contributes to elevated levels of oxidative stress in RA, and enhanced prolidase levels in both RA and CP may be related to an enhanced collagen turnover against oxidative tissue damage. Periodontal evaluation and treatment must be an integral part of the treatment approaches in patients with RA. Benefiting from the antioxidants seems to take more place in future interventions of treating oxidative stress related pathologies. Antioxidants may be beneficial in future interventions in treating oxidative stress–related pathologies such as RA and CP.

65. OUR EXPERIENCE IN THE MANAGEMENT OF CLEFT LIP AND PALATE PATIENTS

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Cleft lip and palate are the most common congenital defects in the maxillo-facial region. We will present some epidemiological aspects of such malformations in Albania, as well as several aspects of treatment protocol. Cleft lip and palate treatment involves a multidisciplinary approach, including pediatricians, speech therapists, pediatric dentists, periodontologists, orthodontics, prosthodontists, ear-nose-throat specialists and maxillo-facial surgeons. As far as surgical treatment is concerned, radical changes have taken place in our treatment protocol, especially during the last 15 years. Basic surgical techniques that we use for the correction of such defects include the Millard, Tennyson, etc. which are the most widely accepted techniques worldwide. Following this treatment protocol, radical improvements in esthetic and functional long-term outcomes are noticed.

66. EFFECTS OF DIFFERENT METHODS ON MICRO-LEAKAGE AFTER APICECTOMY

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Aim: We aimed to evaluate the effects of apical resection before or after root canal treatment (RCT) and to compare diamond bur vs. Er:YAG laser using root-end cavity preparation.
Methods: Sixty extracted single-rooted human teeth were divided four experimental groups. In group 1, the teeth were resected apically after RCT without retrograde filling; in group 2, the teeth were resected before RCT without retrograde filling; in group 3, the teeth were resected after RCT with retrograde amalgam filling (retrograde cavity was prepared with diamond bur); and in group 4, the teeth were resected after RCT with retrograde filling with amalgam, (retrograde cavity was prepared with Er:YAG laser). All of the root canals were prepared using same methods and obturated using cold lateral condensation of gutta-percha points and AH Plus sealer. All roots were sectioned 3 mm from the apex. Apical leakage was measured using computerized fluid filtration technique. Computerized fluid filtration technique was used to measure the micro-leakage.
Results: The mean apical micro-leakage was 10.4 ± 4.1 $\mu L/cmH_20/min^{-1}$ for group 1, group 2 was 9.6 ± 3.9, group 3 was 9.5 ± 3.2, and group 4 was 4.2 ± 1.9. There were no statistically significant differences between the groups 1, 2 and 3 ($P > 0.5$); however, Er:YAG laser group was found statically significant.
Conclusions: This in vitro study showed that apical resection before or after RCT was not effect apical micro-leakage. It can be concluded that Er:YAG laser is more effective than conventional bur preparing the retrograde cavity.

67. HERPES ZOSTER OF THE TRIGEMINAL NERVE MANDIBULAR BRANCH A CASE REPORT AND REVIEW OF THE LITERATURE

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Objective: Our aim was to present a case and review of the literature of rarely seen herpes zoster of the trigeminal nerve mandibular branch.
Case Report: A 17-years-old man referred to our clinic with complaining of severe pain of third molar during 7 days. After clinical and radiographic examination, origin of the pain was not found related third molar. Extra oral examination showed vesicular lesions on the face skin. These lesions were limited to the distribution of the trigeminal nerve mandibular division unilaterally. Final diagnosis was herpes zoster. Antiviral (acyclovir)

and analgesic (NSAI) drugs were prescribed for 10 days. Follow-up control at 5 days showed disappearing lesions and reducing pain. After 2 weeks, the symptoms are completely healed.

Review of the Literature: Articles that presented case reports or a review of the literature reporting herpes zoster of the trigeminal nerve mandibular branch were selected for this review. The search was based on the foregoing "research topic." The database searched was the PubMed interface of MEDLINE. The terms used were "herpes zoster and trigeminal nerve, varicella zoster virus and trigeminal nerve. This strategy was augmented by reference to the bibliographies (or citation lists) of all reports identified by the databases. After reviewing all searched articles, only 15 articles were selected because they reported herpes zoster cases that involved the mandible.

Conclusion: Herpes zoster generally characterized by vesicular lesions and pain. The pain that related herpes zoster can be supposed a dental pain by the patients so dentists must be careful about this point.

68. THE CLASSIFICATION OF FRACTURES ACCORDING THE MUSCLE TOPOGRAPHY AND THEIR TREATMENT

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Nowadays the intensity and quality of life have increased incidence of cases with fractures in facial region, especially those who are in lower part of the face. Their treatment would be incomplete without including the muscles and facial topography of their insertion.

Aim: To report a case with fracture annulus mandibule with indication for osteosintesis.

Case summary: A 28 year old white man has been diagnosed with "Fracture mandibule sinistra". The patient was treated with antibiotherapy and constitutes an indication for osteosintesis. The chirurgical intervention is rejected by the patient. In these conditions, alternative orthopedic treatment is chosen.

Conclusion: The reported case and it's theoretical treatment want to express and encourage the conservative treatment of this pathology, so it don't have to be seen as a method of the past, but as a way of dealing with it.

69. REPLANTATION OF RETAINED CENTRAL INCIZIVE AS RESULT OF MESIODENS WITH USAGE OF GRAFT MATERIAL

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Introduction: The excessive tooth which is located in the medial line of the maxilla is called mesiodens. That tooth can lead to late or ectopic eruption of the central incizive and medial diiastema. The cause of appearance of the mesiodens is not known yet. It is believed that the proliferation of the dental lamina and the genetic factors takes part in the appearance of the diastema.

Aim: To show replantation of rare case of impacted incisive as a result of presence of mesiodens where graft is used.

Methods: After confirmation of the lack of the central incizive rtg is made and appearance of mesiodens is seen. That causes mechanical barrier of erupting the same. In the same time the major cause of the ectopic setting of the incizive. Beside the extraction, replantation must be done. To set up the defect graft material (novocor plus with collagene material) must be used.

Results: After the intervention the results are satisfying. The patient didn't have any swallow or rejection of the graft material. The invizive was in normal position.

Conclusion: Every defect of the incizives in the row should guide us to appearance of maesiodens. When there is a chance to make reinsertion of the tooth, it is desirable to be done. It is desirable too to use the graft material.

70. C - REACTIVE PROTEIN AS A VALUABLE DIAGNOSTIC-MARKER OF ACUTE ODONTOGENIC INFECTIONS

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Introduction: Clinical presentation of acute odontogenic infections (AOI) may be different nowadays from their classic show. Sufficient evaluation of its severity is of great importance for the clinical decision-making and appropriate effective therapy, in face of clinical appearance variations.

The aim of the present study was to observe changes of C-reactive protein (CRP) levels, to correlate its values with symptoms of different AOI and the effectiveness of the applied therapy.

Methods: A meta-analytic study was conducted; including 25 titles and authors selected in Medline, Pubmed, Embase and Cochrane Library from 14.980 relevant studies published in last decade, to bring the opinion up to date with current literature on this topic and forms the basis for another goal, such as future research that may be needed in this area.

Results: CRP levels correlate well with the severity and resolution of AOI. A particularly high CRP level on admission >104 mg/l was found to be associated with a more

severe course of the infection, established in need of ICU (Intensive Care Unit). Cut-off values of CRP level >120 mg/l and WBC count >14.0 10^3/ml were significantly associated with a higher incidence of reoperation (p=0.0002 and p=0.0019). A multiple space involvement was present more often in these patients (p=0.0006).
Conclusion: CRP is a valuable diagnostic marker in identifying, treatment and monitoring the effectiveness of AOI therapy. A combination of CRP and WBC measurements showed to be more reliable than measurements of WBC only. Fever on admission was not found to be sufficient in identifying patients later requiring longer intensive care and hospital stay.

71. EVALUATION OF REASONS FOR EXTRACTION OF CROWNED TEETH: A PROSPECTIVE STUDY AT A UNIVERSITY CLINIC

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Objective: The purpose of this study was to determine and classify the major reasons for extraction of teeth with full crowns belonging to patients admitted to a university clinic.
Methodology: Two hundred and eight extracted teeth with full crowns belonging to 75 patients were included. Apart from personal information, reasons for presenting to the hospital, the reason for extraction, the type of the crown (single crown, bridge abutment, abutment for removable prosthesis), presence of posts, age of restorations, presence of an endodontic treatment and quality were recorded. Comparable data were statistically analyzed using the chi-square test.
Results: Forty-three (57.3%) of the patients were females whereas thirty-two (42.7%) were males with an average age of 63.21±13.56. A statistically significant relationship was determined between age groups and rate of extractions. The lowest number of extractions was detected in the 35-44 age group and the highest in the 55-64 age group (p=0.001). Tooth mobility was the major reason for patients' initial presentation to the clinics (52.9%). The most encountered reason for extraction was periodontal reasons with a prevalence of 59.1%, followed by caries (26.9%) and periapical lesions (12%). 35.6% of extracted teeth had endodontic treatment. Sixty teeth (81.1%) had incomplete root canal fillings. A significant relationship existed between extractions and incomplete root fillings (p=0.001).
Conclusion: Studies comprising other faculty clinics and general practices will be complementary in making more generalized statements regarding the etiology of extractions of crowned teeth.

72. CLINICAL PRACTICE, ORAL LESION ASSOCIATED WITH PREMALIGNANCY: A CASE REPORT

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Introduction: Oral cavity cancer accounts for approximately 3% of all malignancies and is a significant worldwide health problem. Many oral cancers develop from premalignant conditions of the oral cavity.
Case report: A 60-year-old man visited the dental clinic for fabrication of a denture. During his comprehensive head-and-neck examination, the clinician discovered a single asymptomatic 5x4mm papilar white pedunculated lesion, on the right posterior vestibulum region. He reported having smoked cigarettes for more than 40 years and continued smoking more than 15 cigarettes a day. He stated also that he is a regular alcohol drinker and reported a family history of oral cancer. Verruca vulgaris is usually a single, papilar, white lesion with a peduncul, asymptomatic persistent lesion mostly found in labial mucosa. The clinician used toluidine blue to help identify if the lesions have premalignant or malignant changes. The clinician took a biopsy of the lesion showing low degree of epithelial displasia. The patient was monitored following a precise protocol over a year.
Conclusions: The mean age at diagnosis of oral premalignancy is 50-69. Thus, the aging process itself is the greatest risk factor for premalignant and malignant changes. About 5-18% of epithelial dysplasias become malignant. Verifying the premalignant status of an oral lesion requires a biopsy. The clinician must still exercise clinical judgment, however, when evaluating a lesion.

73. PRIMIPAROUS WOMEN WITH PERIODONTITIS ARE AT RISK FOR ADVERSE OBSTETRIC OUTCOME

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Aim: The aim of this study was to demonstrate whether the risk of delivering preterm low birth weighted babies is higher in women with periodontitis that have delivered for the first time compared to peridoontitis women that have previously delivered live offspring(s).
Methods: The relationship between periodontal disease and preterm low birth weight was evaluated by periodontal examination of two-hundred women that gave birth at OB/GYN department, where also obstetric data were obtained. Periodontal disease was defined as the presence of at least one site with probing depth 5 or more mm, and at least two sites with clinical attachment level 6 or more mm. Preterm low birth weight was defined if delivery resulted with baby of less than 2500 grams and before 37-th week of gestation.
Results: The statistical analysis of the general data showed that women with periodontal disease have threefold odds for delivering preterm low weight baby. When women with periodontitis were divided in the group of first-time parturients and the group of women with previous live deliveries, the results showed that primiparous women are at seven-fold risk for delivering low weighted baby (odds ratio – 7.3) and at five-fold risk for delivering before the 37-th week of gestation.
Conclusion: Periodontal health of pregnant women may represent an important measure during prenatal care, especially if pregnant women are giving birth for their first time.

74. EFFECT OF DIETARY BORON IN 5-FLUOROUACIL INDUCED ORAL MUCOSITIS IN RATS

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Aim: The aim of this study was to evaluate the effect of boron on 5-Fluorouracil (5-FU) induced-oral mucositis in rats.
Subjects and methods: Sixty-four male wistar albino rats injected with 5-FU on 1st and 3rd days. The tip of an 18-gauge needle was used in order to develop a superficial scratching on the right cheek pouch mucosa by dragging twice in a linear movement on 3rd and 5th days. The animals were randomly divided into two groups (each with 32 animals): boron (BG) and control group (CG). While the CG did not receive any treatment, the others were feeding 3-mg/kg/day boron by gavage. The animals were sacrificed on 3rd (n =8), 6th (n =8), 9th (n =8) and 12th (n =8) days and the cheek pouch was removed for histopathological analysis.
Results: On the 3rd day both groups presented necrosis and active inflammation but the inflammation was mild in CG where it was moderate in BG. On 6th day both BG and CG showed necrosis and in CG there was moderate inflammation where in BG there was severe inflammation and granulation tissue around the necrosed area. On 9th day, re-epithelization was started in both groups and there were no differences between groups. Re-epithelization was completed in both groups at the 12th day.
Conclusion: In this study we did not find a beneficial effect of boron on healing process of oral mucositis. Additional research is warranted on the pathogenic inflammatory mechanisms involved and the role of the antioxidants in the prevention and treatment of mucositis.

75. EFFECTS OF PERIODONTAL THERAPY ON DISEASE ACTIVITY AND SYSTEMIC INFLAMMATION IN RHEUMATOID ARTHRITIS PATIENTS

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Aim: This study was performed to evaluate the effects of nonsurgical periodontal treatment on clinical periodontal measurements and systemic inflammatory mediator levels in low or moderate to severe active rheumatoid arthritis patients with chronic periodontitis.
Methods: The activity of rheumatoid arthritis was assessed using the disease activity score test (DAS28). Thirty patients with rheumatoid arthritis with moderate to high disease activity (DAS28 ≥3.2) and chronic periodontitis (MHDA group) and thirty patients with RA with low disease activity (DAS28 <3.2) and chronic periodontitis (LDA group) were enrolled in the current study. The patients were monitored at the beginning and 3 months after undergoing periodontal therapy. Erythrocyte sedimentation rate, C-reactive protein, tumor necrosis factor-alpha levels in serum, DAS28, and periodontal parameters were evaluated.
Results: After nonsurgical periodontal treatment, periodontal parameters and DAS28, erythrocyte sedimentation rate, C-reactive protein and tumor necrosis factor-al-

pha levels exhibited similar and significant improvement at 3 months.
Conclusion: Nonsurgical periodontal treatment improved rheumatoid arthritis severity, as measured by DAS28, erythrocyte sedimentation rate, C-reactive protein and tumor necrosis factor-alpha levels in low or moderate to severe active rheumatoid arthritis patients with chronic periodontitis. Periodontal healing was uneventful and similar in both rheumatoid arthritis groups.

76. PERIODONTAL STATUS AND BACTERIAL VAGINOSIS, AN ASSOCIATION OF ORAL MEDICINE

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Purpose: The presence of clinically active, or positive culture of vaginal secretions, would mean over-production of cytokines and prostaglandins that found in amniotic fluid. Bacterial vaginosis occur with their clinical outbreak of bacterial combination. Some of these bacteria are essential members in creating of bacterial plaque. The purpose of this study is to find the liaison between the presence of specific bacteria in the mouth and bacterial vaginosis, as the latter is one of the causes of performance of premature births.
Methods: The study was applied in 10 pregnant women with positive culture of vaginal secretions. It performs the following tests: cultivation of vaginal secretions, amniocentesis - detection of PGE2, detection butyric acid in vaginal secretions and in saliva, gingival index rating. Women have been hospitalized in the department of pathology, Maternity of Fier.
Results: 6 women had premature births. 4 had clinically active vaginosis, caused by candida, and 2 others had a positive culture, but with the lack of clinical performance. 2 females (the only ones who accepted in couple, the amniocentesis), were PGE2 positive. All women were positive by the presence of butyric acid in saliva and in vaginal secretions. Butyric acid detection was performed by ELISA. Final gingival index was G2!
Conclusions: Bacterial vaginosis, clinically active or passive presence of fusiobakterium nukleatum and porfiromonas gingivalis, cause premature birth. Course of pregnancy is associated with gingival manifestations of infection, due to fluctuations in hormone levels. Index of periodontal disease in infected patients indicates moderate gravity of the disease.

77. THE MULTIDISCIPLINARY TREATMENT OF ANTERIOR TEETH WITH EXCESSIVE TISSUE LOSS

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Aim: Dentists have had difficulties in correctly managing the marginal placement of esthetic crowns in the treatment of anterior teeth with excessive tissue loss due to subgingival crown fracture or carries and many failures have been encountered due to the incorrect management of periodontal soft and hard tissues. We describe here a multidisciplinary treatment for such cases requiring periodontics, orthodontics, and prosthodontics, resulting in the preservation of the natural dentition without implant placement.
Methods: A 27-year old male patient was presented with poorly treated left anterior incisors that had excessive tissue loss. The detailed examination of the patient revealed anterior crowding and several cross-bites both anteriorly and posteriorly, in addition to the central and lateral incisors having excessive tissue loss, continuing until below the marginal periodontal tissues. Subsequent to the endodontic treatment of related teeth, orthodontic leveling and alignment of maxillary teeth was accomplished in six months. Then 0.016 X 0.022 arch wire was placed and the forced eruption technique with circumferential supracrestal fiberotomy was performed every two weeks. At the end of a six-week extrusion period, the teeth were stabilized for 4 weeks and a limited crown lengthening was carried out to level the gingival margins of the anterior dentition. Six weeks after the surgery, the teeth were restored with zirconium crowns. The one-year follow-up period demonstrated that no complications recurred and the satisfactory results were maintained.
Conclusion: Correctly chosen multidisciplinary treatment including forced eruption combined with circumferential supracrestal gingival fiberotomy permits the teeth to assist in the support of a single crown or maintain its individual integrity while contributing to esthetics, speech, and function.

78. UTILIZATION OF THE OLFACTORY SYSTEM FOR PATIENT MOTIVATION TO HOME CARE

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Home care and patient motivation is most important subject in human life. It has been prooved that almost %50 of the disease develop from teeth and mouth. All the world countries suffers from negletion of oral hygiene.
Generally 'brush your teeth twice a day, visit your dentist twice a day sentence is not enough for oral hygiene. Best way to solve the probleme is to tell the patient or patient groups (children etc.) to make a test. The test includes the steps instructed below;

a) Give a small piece cotton to patient and request to scrub the teeth.
b) Tell the patient to smell the scrubbed cotton.
c) Show the patient yellow substrate on cotton plaque, that contains 1,7*1011 microorganism.
d) Tell the patient these microorganism can develop, periodontal problems caries and several health problems.
e) Ask the patient a foot washes very well but without cleaning among fingers does the job perfect?
f) If the patient smells the dental floss after inserting interdental area, also smells like plaque.
g) Explain how to use dental

79. PREVENTION, CONTROL AND MANAGEMENT OF PERIODONTAL DISEASES IN DIABETIC PATIENTS

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Objective: This scientific research is directed more at identifying the risk factors that lead to the progression of periodontal disease. The aim of this article is to demonstrate that diabetic patients are predisposed to the colonization of the oral cavity by the periodontal anaerobic bacteria, with consequences the development of halitosis and aggressive forms of the periodontal disease.
M**aterials:** During the time of the study they have been examined about 70 diabetic patients by the Department of Dental Sciences University of Cagliari Italy, Complex of Diabetology next to the Hospital Establishment of Brotzu and the everyday job done by the staff of "Klinika 1" Tirane. The patients were subjected to both clinical examination and anamnesis examination; clinical files were prepared and also files of the biological material (flans of saliva, cones that were used inside examining the periodontal pocket, and the halitosis test) were used on producing a microbiological test.
Results: The study shows of a connection between patients with diabetes and the periodontal diseases. The diabetic patients show a 15% higher risk in the development of the disease. The presence of virulent anaerobic microorganisms in the deeper periodontal pockets shows of more dominant sing in these patients.
Conclusion: Essentially, we cannot say that there is a "diabetic periodontal disease", but we can assert that any metabolic concern that disrupts the biochemical equilibrium of our organism can influence the systemic factors in the periodontal health.To identify and prevent the periodontal alterations with the right proper cures in the beginning stages, on the diabetic patients which represent a high risk in the development of this disease.

80. ORAL STATUS OF WOMEN DURING PREGNANCY

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Introduction: Preliminary studies have shown the impact of oral health (carious and periodontal) of mothers during pregnancy on the health of their children. It is very important to evaluate oral status (Carious and periodontal), in order to recommend preventive measures. Goal. To determine the oral status of women during pregnancy
Methods: 70 healthy pregnant women aged 20 to 40 years were included in this study. All the participants underwent general examination: Teeth check up to investigate carious status, photos, periodontal-charting, taking material from gingival tissues.
Results: Study results showed a high prevalence of carious and periodontal problems. Approximately 99% of them showed carious process, and periodontal problems from 90.5 to 95.3%.
Discussion: In examined patients we found moderate to severe gingivitis, and in some cases chronic and aggressive periodontitis.This as a result of bacterial plaque as high-risk factor, and hormonal changes that affect directly and indirectly in gingival tissue. Bacterial culture demonstrated the presence of aerobic microorganisms and in some cases anaerobic ones.
Conclusion: Hygiene and Therapeutic procedures was advocated as necessary to improve oral status.

81. LIMITATIONS RELATED TO MANDIBULAR FUNCTIONING AFTER ORTHODONTIC-SURGICAL CORRECTION OF MANDIBULAR PROGNATHISM

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Aim: To investigate jaw disability after orthodontic-surgical treatment of mandibular prognathism with respect to healthy subjects.
Methods: The study group included 40 patients with completed orthodontic-surgical treatment of madibular prognathism recruited from orthognathic surgery patients referred at the department of Maxillofacial Surgery at Military Medical Academy, Belgrade. Forty age and gender-matched individuals with minor or without occlusal traits were selected from pre and postgraduate students of Dentistry at the University of Belgrade, Serbia to form the control group. Jaw disability, hypomobility, TMD diagnosis, and chronic pain were established using the Research Diagnostic Criteria for TMD (RDC/TMD). Occlusal analysis was performed as specified in Helkimo's Occlusal State Index (Oi).
Results: Restricted protrusive and laterotrusive movements were higher in prevalence, and range of maximal jaw opening were significantly decreased among postoperative subjects comparing to controls (p<0.001). Significantly lower values of mandibular opening was found in patients with myofascial pain (p<0.01). Postoperative prognathic patients showed higher jaw disability scores than the control individuals (p<0.05). The most frequently reported jaw disabilities in the study group were chewing (30.8%), eating hard foods (30.8%), and having the usual face appearance (25.6%), while cleaning teeth or face and talking were more frequently disturbed then in controls (p<0.01, p<0.05, respectively). Limitations in mandibular functioning were found to be related to restriction in opening and laterotrusion and to presence of chronic pain (p<0.01, p<0.001, respectively).
Conclusion: Orthodontic-surgical treatment of mandibular prognathism results in more limitations related to mandibular function with respect to controls. Absence of normal mandibular functioning in postoperative prognathic patients is related to chronic pain, restrictions in jaw movements, but not to the absence of optimal occlusal relationship.

82. DENTAL OCCLUSION AND POSTURE

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The activity of stomatognatic system is closely related to the activity of muscular-skeletal framework of human body,especially to posture. The head position is very crucial for posture and is regulated by masticatory muscles. Different kinds of jaw relation has impact at the space´s position of head by means of cranio-cervico-mandibular muscles. More specific is deep skeletal bite among other maloocclusions.
The aims of study are: 1. to compare the position of head at the patients group with deep skeletal bite and the patients group with normal occlussion (skeletal class I with normal overbite).
2. To see the improvement of cervical and head situation after combined treatment (general orthopedics and orthodontics).
Methods: From 121 patients examined in orthodontics department, we treated 47 of them, with deep skeletal bite. Treatment was based on correct diagnosis (clinical and radiological), using mixed technics, convencional and complementary.
Postural problems in our selected patients were treated by orthopedics specialists in combination with removable and fixed appliances for orthodontics problems.
Results: Patients´analyses has revealed that vertical problems, specially deep skeletal bite is closely related to fusion C3, C4 cervix, as well as to the position of head. 38.8% of our patients with deep skeletal bite, combined with class II/2 demonstrated the fusion of C3, C4 cervical.
Conclusions: Maloocclusions, especially class II/2 with skeletal deep bite, has an important impact at the human body posture, cervical line, as well as forward position of head. Positive results were achieved from both, orthopedics and orthodontics treatments.

83. IS THERE A RELATIONSHIP BETWEEN INITIAL AND REMOVAL TORQUE VALUES OF ORTHODONTIC MINI-SCREWS?

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Aim: It's known that the removal torque test is a method to determine the stability of mini-screws. The purpose of this study was to evaluate correlation between initial and the removal torque values of orthodontic mini-screws.
Methods: A total of 64 commercially available (Dual-top, Abso-anchor, Neo-anchor, Dewimed), cylindrical, self-drilling, Ti6Al4V alloy orthodontic mini-screws (1.5× 4.4mm; 1.6× 4.7mm; 1.7× 5.5mm; 1.8×5.6mm) were used. All these mini-screws were applied on eight male 6-months-old rabbits, weighing 3.0 to 3.5kg. The initial torque values were immediately recorded by a digital torque gauge. For two months, 115 g of force was applied to mini-screws inserted on each right fibulas of rabbits with a nickel-titanium closed-coil spring. The same procedure was followed on the left fibulas of the rabbits without applying any forces to mini-screws. After two months of healing, the removal torque values were recorded for

all mini-screws by the same digital gauge. All measurements were performed by the same operator. All statistical analyses were performed by the SPSS version 14.0 for Windows (SPSS Inc., Chicago, IL, USA). The Spearman correlation coefficient was used to analyze the relationships between initial and removal torque values.
Results: Intra-group comparison of all trademarks showed similar features. The values for removal torque test for both the loaded and unloaded mini-screws were lower than the values for initial torque test. Spearman rank-order correlation coefficients between initial and removal torque values for unloaded and loaded mini-screws ranged from 0.09 to 0.444 and 0.026 to 0.127, respectively (P > 0.05). The Spearman correlation coefficient showed that correlations between the initial and removal torque values were insignificant (P >0.05).
Conclusion: It's not concluded that the initial torque value is an indicator to determine the stability of mini-screws.

84. INTERDISCIPLINARY TREATMENT IN ADULT SKELETAL CLASS II PATIENT WITH GUMMY SMILE

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Aim: The treatment of adult Class II patients needs teamwork. Since orthodontic therapy alone is not sufficient to solve the problem, orthognathic surgical approach is indicated for these patients. In this team-work, orthodontist prepares the patient for surgery and maintains the ideal occlusion after the surgery while the surgeon places the jaws at ideal position in surgery.
Methods: Following clinical and radiographic examination and preoperative orthodontic therapy, a Le Fort I osteotomy for maxillary impaction, a bilateral sagittal split osteotomy were applied. Our objectives were to: 1- impact maxilla, advance-rotate mandible 2-correct the positions of the anterior teeth 3-establish ideal occlusion 4-treat gummy smile, improve smile and dental esthetics.
Results: At the end of the treatment, all objectives were achieved with patient and her family's satisfaction. Skeletal and dental measurements proved that the jaws and dental relationships were corrected. Gummy smile were also treated and better soft tissue esthetics were gained.
Conclusion: Interdisciplinary treatment in adult skeletal class II patient with gummy smile can be performed successfully by bimaxillary surgery. With combination of orthognatic surgery, orthodontic approach can give the best result for these kind of patients.

85. EFFECT OF NATURAL ANTIOXIDIZING SOLUTION ON THE SHEAR BOND STRENGTH OF BRACKETS

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Aim: Treating the bleached enamel surface with 10% sodium ascorbate, an artificial antioxidant, or waiting for 1 week reverses the shear bond strength reduction. However; preparing sodium ascorbate is hard, expensive and waiting for 1 week can be time consuming**.** Our purpose was to investigate the effect of pine bark (natural antioxidant) solution on the shear bond strength of metal brackets bonded with composite resin to human enamel after bleaching with hydrogen peroxide (HP).
Methods: Sixty recently extracted premolars were divided into an experimental group (n = 45), which was bleached with 40% HP, and a ***control group*** (n = 15), which was not bleached. The experimental group was further divided into 3 subgroups. Specimens in ***group 1*** (n = 15) were bonded immediately after bleaching; specimens in ***group 2*** (n = 15) were bleached, then treated with 10% sodium ascorbate, an artificial antioxidant agent, and then bonded; ***group 3*** specimens (n = 15) were bleached, then treated with 5% pine bark solution then bonded. The specimens were debonded with Universal testing machine, and the enamel surfaces and bracket bases were examined with a stereomicroscope. The adhesive remnant index calculated.
Results: Shear bond strength of brackets bonded immediately after bleaching with 40% HP (group 1) was significantly lower than that of brackets bonded to unbleached enamel (control group) ($p < 0.05$). No statistically significant differences in shear bond strength were noted when pine bark treated group (group 3) was compared with the control group and sodium ascorbate group (group 2) ($p > 0.05$).
Conclusion: Bleaching with 40% HP immediately before bonding reduces the bond strength. Treating the bleached enamel surface with 10% sodium ascorbate or pine bark solution reverses the reduction. So, as a natural antioxidant and easy to prepare, clinicians can choose pine bark solution instead of sodium ascorbate.

86. MOLAR EXTRACTION TREATMENT OF SKELETAL CLASS II AND OPEN- BITE PATIENTS

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Aim: To determine the effects of extraction treatment,in patients with skeletal Class II
associated with anterior open-bite
Methods: A girl 16 years old and a boy 17,5 years old, with skeletal Class II-1 malocclusion and anterior open bite were included.
Severe open bite (7 mm) is characterized by lack of overlap of mostly anterior teeth. The treatment plan consisted of extraction of four first molar, because these teeth showed apical lesions. A conventional edgewise fixed appliance was used. The multiloop edgewise archwires were fabricated to upright the posterior teeth and close the extraction space. After 22 months active treatment, pre treatment and post treatment cephalometric radiographs were obtained and measured.
Results: The analysis results showed the alteration of the occlusal plane(downward-tip anteriorly and uprighting of posterior teeth), extrusion of anterior teeth and forward displacement of the mandible. The correct over jet and overbite were obtained.
Conclusions: Extraction of molars was an effective way to improve optimal esthetic and functional results in skeletal Class II-1 open-bite patients.

87. TREATMENT OF CLASS II/1 MALOCCLUSION WITH ANTERIOR OPEN BITE

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Aim: The aim of this presentation is to describe the treatment of class II/1 malocclusion with anterior open bite.
Methods: Patient: 20 years old female patient that came to our clinic with the complaint that her teeth stick out.
Extra oral examination revealed a convex profile, symmetric face, short upper lip, incompetent lips, and breathing with mouth.
Intraoral examination revealed permanent dentition, Class II/1 malocclusion proclined maxillary incisors, over jet 14 mm, anterior open bite, interoclusal space in frontal region 6 mm.
Patient: 19 years old female patient that came to our clinic with the complaint that she is unable to close her lips.
Extra oral examination revealed a convex profile, short upper lip, incompetent lips, and breathing with mouth.
Intraoral examination revealed permanent dentition, Class II/1 malocclusion, protrusion of the maxilla in the front, with an over jet 11 mm, anterior open bite, interoclusal space in frontal region 5 mm.
Treatment: In both patients we did the extractions, after that we applied active mobile appliances and fixed appliances for leveling the teeth. The final phase we applied appliances for retention.
Results: Both patients were treated in our clinic actively during two years.
The results of an adequate treatment in the patient N.N. 20 years old were: over-jet reduced from 14 mm to 2 mm, over bite 3 mm.
And the Results of an adequate treatment in the patient N.N. 19 years old were: over-jet reduced from 10 mm to 3 mm, over bite 2 mm.
After the correction of the class II/1 malocclusion the lips of the patient are competent and breathing is with nose.
Conclusion: Treatment of Class II/1 malocclusion in adults is always challenging. Applying sound biomechanical principles to implement the treatment plan is the best way to achieve optimal results with minimal side effects.

88. TREATMENT RESULTS OF FAN-TYPE RAPID AND RAPID MAXILLARY EXPANSION: POSTERO-ANTERIOR CEPHALOMETRIC EVALUATION

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Aim: To evaluate fan-type rapid and rapid maxillary expansion (RME) with modified acrylic bonded expansion appliance, used for treatment of transverse maxillary deficiency in mixed dentition.
Method: The data gathered in Selcuk University, Dentistry Faculty, Department of Orthodontics, Konya, Turkey, at 2006-2009, by Bayram Corekci. The fan−type rapid expansion group had anterior constricted maxillary width with normal intermolar width and the RME group had bilateral constricted maxillary width. The fan−type group consisted of 20 patients at mean age of 8.96±1.19 years and the RME group 22 patients at mean age of 8.69±0.66 years. The treatment time was 19.77±2.02 days for fan−type group and 22.82±2.52 days for RME group. The patients in both groups were instructed to activate the screw one-quarter turn twice a day for the first week followed by a quarter turn once per day. Dental casts of both jaws and lateral and frontal cephalometric radiographs were taken before and after expansion and three months after completion of expansion. The data was first compared using repeated measurements analysis of variance then paired samples t−test was used to evaluate the effects of treatment and retention. An independent samples t−test was used to determine differences between the groups.
Results: Although relapse was determined after the retention period, significant differences were observed at nasal cavity width and maxillary basal width maxillary in both groups after expansion therapy (P<0.001). The nasal cavity and maxillary width were more expanded in the

RME group than in the fan−type group. There was only minimal relapse in the RME group.
Conclusion: Within the limitations of this study, it seemed that maxilla and upper intercanin width was successfully expanded symmetrically. Expansion of intercanine width was similar in both groups, but the expansion of intermolar width was significantly greater in the RME than in the fan-type group.

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89. PROSTHETIC REHABILITATION IN YOUNG PATIENTS WITH ECTODERMAL DYSPLASIA.

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Introdution: Ectodermal displasia is part of a wide range of diseases which becomes clinically manifest with abnormal development of two or more tissues derived from the ectoderm. Orally, the disease is characterized by hypodontia, oligodontia or anodontia, which can, moreover, affect both the maxilla and mandible. Prosthetic rehabilitation is fundamental in this situations in order to provide the growing patient with esthetic and function so that the child can developed physically and psychologically as normal as possible. The principal aim of this study is to provide the clinicians with some practical issues concerning prosthetic treatment of children, adolescents and young adults affected by ED.
Case summary: 7 patients (two females and five males) with diagnoses of ED, referred to "Sapienza" University of Rome for hypodontia were selected. Each patient underwent multidisciplinary clinical and radiograph examination for diagnosis and therapy. Minor and major abnormalities were detected in each individual and information on personal history was collected. The intraoral examination revealed malformation of existing teeth with most being conical shaped and atrophy of the alveolar ridges. Orthopantmograf reveled delayed eruption, various degree of hypodontia and misshapen teeth.
The prosthetic treatment was carried out on individual basis considering the stages of growth and the degree of hypodontia. In patients who hadn't finished growing(4 cases) removable partial dentures, considered temporary treatment procedure allowing immediate function and esthetic, were placed. 3 of the patients presenting a more stable situation were rehabilited with fixed bridges (1 case) and cemented on implant prosthesis(2 cases).
Conclusion: Prosthetic treatment in children affected by ED should be commenced as soon as possible and early diagnosis is mandatory. When confronted with multiple agenesis the clinician should always look for an association with ED signs in order to make a correct diagnosis. The principal aim of temporary prosthetic rehabilitation is to limit resorpition of alveolar ridges, control vertical dimension and maxilla/mandible interrelationships which are fundamental for future definitive treatment. The prosthesis should provide good occlusal stability and adequate support for facial soft tissues.

90. PRACTICAL RESULTS IN FUNCTIONAL DEFICIENCIES OF THE PARTIALLY EDENTULOUS

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Introduction: In order to elaborate a selective treatment plan for each individual clinical case, it needs to be correlated with a series of objectives and criteria that decisively influence the preparatory stages and the choice of the final therapeutic solution.
Aim:The study aimed at determining the clinico-biological indices of each individual patient under investigation. The negative indices were monitored, while indicating the treatment stage where they could be turned positive.
Methods: The study carried on a lot of 135 patients who came at the Clinical Base of Faculty of Dental Medecine, Iasi, during April 2009 – December 2011, with the diagnostic of partially extended edentation.Using as a starting point the platform of ProDent® application of the Faculty of Dental Medicine within „Gr. T. Popa" University of Medicine and Pharmacy from Iasi, an expert system was developed to evaluate the clinical cases and to offer therapeutic solutions with a certain degree of plausibility.
Results:Based on the excellence score in dental medicine (elaborated by Prof. PhD. Forna Norina Consuela), the patient will be included in a clinical class which will guide the clinician towards a certain treatment plan. This inclusion bears two components: an initial one, determined upon a primary evaluation of the patient, and a final one, decided on after the specific and non specific preparatory stages have been conducted. From the statistical data there results that the rehabilitation of the prosthetic field is an objective necessity, a fact demonstrated by the numerous modifications in this area.
Conclusions: The pro-prosthetic specific interventions at the level of the dental-periodontal and mucous-osseuse support correct the negative clinic-biological indices, improving preservation and stabilization of the future partially fixed prosthetic works.

91. EVALUATION OF THE ACCURACY OF DIFFERENT IMPRESSION MATERIALS AND DIFFERENT TYPES OF GYPSUMS.

Keraj Kreshnik, Spahiu Lunareda, Scotti Roberto, Keraj Fejzi

Objectives: All prosthetic treatments are characterized by a sequence of well structure clinical and laboratory steps,during which different kinds of impressions are required.

The aim of this study was to evaluate and to compare the accuracy of three different impression materials, their ability to reproduce details,using a measuring microscope. And this is a clinical evaluation of the quality of gypsums casts,using detail reproduction and surface structure as criteria. Another aim of this study was to compare different types of gypsums that we use to poure those impressions,their espansion and their accuracy too. We also determine the compatibility between impression materials and different types of gypsums.

Methods: Four types of impression materials were used to take the impression of the same reference point on the composit restauration on the second molar, in the same time. Irreversible hydrocolloids Orthoprint, Neocolloid (ZHermack), the Polyvinilsilosan (Elite HD+) and Polyether (Permadine) were used. Five types of gypsums were used to pouring the same impression:Elite Stone (Zhermack), Resin Rock (Whip Mix, Louisville, U.S.A), Elite Rock, Elite Rock Implant (Zhermack), Fuji Rock (GC Corporation).

Results: The results show that both impression materials demostrated greater characteristics if they are treated correctly before and after the taken of impression, according theirs manufacturer's instruction and if we respect the storage time. Elite Stone (Zhermack, Badia Polesine, Rovigo Italia) and Resin Rock (Whip Mix, Louisville, U.S.A) demostraded a greater precision and a minimum of expansion

Conclusions: The quality and the accuracy of the impression is affected by pouring and storage time in order to obtain a greater accuracy of stone casts.And a minimum of expansion correspond a greater precision,so in our practise clinic we have to choose the gypsum which have the minimum of expansion to have greater accuracy of master casts.

92. CLINICAL EVALUATION OF THE CORRELATION BETWEEN MARGINAL PERIODONTAL PATHOLOGIES AND FIXED PROSTHODONTIC

Kaçani Gerta

Gingival adaptation of fixed prosthodontics and periodontal tissue's assessment place the main role in prosthodontics long term results.

The aim of this study was to assess changes in correlations between cervical crown edge and marginal gingiva in patiens with fixed prosthodontics.

Methods: 65 patients: 40 women and 25 men, aged from 32 to 65 years were examined. Patients were with different fixed constructions: full metal, metal-ceramic, and total ceramic crowns and bridges with 2 to 20 years longevity. Clinical periodontal examinations included: hygien index, gingival bleeding (PBI), the distance between cervical crown edge and marginal gingiva, probing pocket depth, clinical attachment level, gingival overgrowth, tooth mobility.

Results: Clinical examination indicated little inflammation of the gingival tissues of crowned teeth with margins at the gingival and minor clinical signs of inflammation in cases with supragingivally location of the crown margin. Higher average of PBI was observed when the crown margins were located subgingivally. In summary crowns and fixed prosthodontics increased the incidence of advanced gingival inflammation adjacent to restorations, particularly if they had intra crevical finish line placement,poor marginal adaptation, and rough surfaces.

Conclusion: The main factors to realize periodontal prophylactic role of fixed prostodontics and to preserve periodontal health are exact adaptation of crowns and retainers toward gingival preparation limits, maximum release of the interdental spaces, correct contour of the crowns, good polishing, motivation and instruction for mouth hygiene of the patient.

93. THE EFFECT OF DIFFERENT LASER PARAMETERS ON DIFFERENT DENTAL ALLOYS SURFACE ROUGHENING

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Aim: The aim of this study was to compare effect of different laser parameters to roughening on different dental alloys.

Methods: A total of 180 Ti, base metal (Co-Cr) and noble metal (Au-Ag-Pt) alloy disc specimens prepared by casting. Disc surfaces were finished with 600-grit SIC abrasive paper under water. Speciments divided into six groups *(n=10).* Following procedures were performed. (1) No treatment (control), (2) speciments were abraded with 110-µm aluminum oxide airborne-particule for 10 seconds, (3) laser irradiation at 4W, (4) laser irradiation at 5W, (5) laser irradiation at 6W, (6) laser irradiation at 7W. Nd:Yag laser used for all laser groups. Each laser groups irradiated with medium short pulse at 50 Hz.

After surface treatments roughness tests performed from center of speciment with 0.1m/s speed by a universal test machine. Values recorded as Ra. Data (Ra) were analyzed using two-way ANOVA, Kruskal Wallis and Mann Whitney U statical analyses.
Results: According to results obtained from datas the highest roughness value was observed at airborne-particule abrasion group in noble alloys *(p<0.05).* No significant difference was found in laser groups *(p>0.05)*. The lowest roughness values observed at control and 6W laser groups. for base metal alloys there was No significant difference among airborne-particul abrasion group, 4W, 6W and 7W laser groups. The lowest roughness value was observed in control group *(p<0.05).* For Ti alloys no significant difference between airborne-particul abrasion group, 5W, 6W, 7W laser groups. The lowest value observed in control group *(p<0.05).*
Conclusions: Nd:YAG laser application is an effective method for roughening for dental alloys. The most effective roughening method was airborne-particul abrasion for noble alloys. The most effective roughening methods were 6W laser application and airborne-particul abrasion for base metal and Ti alloys

94. THE EFFECT OF 3 SURFACE CONDITIONING METHODS: ON SURFACE ROUGHNESS AND COLOR

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Aim: The aim of this study was to evaluate the effects of three surface condititioning methods on surface roughness and color of a feldspathic ceramic, and to evaluate the efficiency of three polishing techniques.
Methods:A total of 36 feldspathic ceramic discs were prepared. Specimens which were divided into 3 groups (n=12) were sandblasted (SB), hydrofluoric acid (HF) and Er-Yag laser. The brackets were bonded with light cured adhesive after silane applied to ceramic surface. The samples were stored in water for 24 hours at 37°C. Brackets were debonded using bracket removing pliers, at first resin was removed with a 12-fluted carbide bur. The surface was refinished using a diamond polishing kit, followed by ceramic polishing kit. Measurements for surface roughness (Ra), and color were made before and after all steps which were surface preperation, bonding, each step of refinishing. CIELAB system was used color determination. Data were analyzed with Kruskal Wallis and the Mann-Whitney tests at a significance level of (P<0.05).
Results: The SB method increased Ra more then other groups (P<0,05) and altered color (P<0.05). HF and Er-Yag did not increased Ra statistically significantly (P>0.05) but altered color (P<0.05). Ra and color were improved significantly by ceramic polishing kit but not fully restored.
Conclusions: The sandblasted method caused significantly damage to ceramic more than the HF and Er-YAG methods. The refinishing protocol restored the ceramic surfaces but not enough.

95. THE PRECISION OF ZIRCONIUM DIOXIDE COPINGS IN-ALL CERAMIC CROWNS

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Purpose. The aim of this in vitro study was to evaluate the fit of five different unveneered zirconium dioxide restorations.
Methods.Two molars extracted for periodontal reasons were prepared in 1.0-mm circumferential chamfer, then 10 ZrO_2 copings coming from Lava, Procera, Digident, Cerec and Etkon were made for each tooth. The internal and marginal fit of the copings was determined using the stump replica technique. Each coping was filled with a PVSS material and pressed on the corresponding tooth: once polymerized, another PVSS having a contrasting color was injected in the coping, obtaining PVSS replica stumps. The two-colors stumps were sectioned and the thickness of the PVSS corresponding to the marginal and internal misfit was measured under a stereomicroscope. The statistical analyses was performed by 1-way ANOVA and Tukey HSD test (alpha = 0.05).
Results. The misfit in the marginal area for Lava, Procera, Digident, Cerec and Etkon copings was respectively 48.25 µm (41.05), 64.11(41.98)µm, and 44.02(30.51) µm,74.69(77.27) µm,56.59 (85.42) µm. The differences among cerec and digident were statistically significant while the results among other groups were not statistically significant (p>0.05). Lava copings showed better internal fit on the axial walls, cuspal and occlusal part of the abutment, although the mean values among the groups were not significantly different; only on the occlusal side the misfit of Lava (138.62 ±46.11 µm) appeared significantly lower than Procera (202.91±50.29 µm) and Digident (208.35±63.78 µm).
Conlusions. The marginal fit of the zirconia systems here analized was within the clinically acceptable limit for this type of restoration. The Lava and Digident mean marginal discrepancies were smaller than 50 µm.

96. BOND STRENGTH OF PORCELAIN BONDED TO ENAMEL SURFACES PREPARED WITH DIFFERENT SURFACE TREATMENTS

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Aim: The aim of this study was to assess the shear bond strength of porcelain discs bonded to enamel surfaces etched with Er:YAG laser, acid etching and air abrasion.
Methods: A total of 105 sound incisors were selected and embedded in cold-cure acrylic resin. The enamel surfaces were flattened by a grinding. The teeth were randomly divided into seven groups and pretreated as follows (15 teeth per group): (1) no surface treatment (control) (2) 37% phosphoric acid; (3) air abrasion with 50 µm aluminum oxide by a micro-etcher at 4 mm distance (4) Er:YAG laser (1.2 W, 10 Hz frequency, 9,04 J/ cm^2 energy density, 1 mm distance) (5) Er:YAG (1.2W) laser etching + acid etching (6) air abrasion + acid etching (7) air abrasion + Er:YAG laser etching. Porcelain (IPS Empress Esthetic) discs (1 mm thickness, 5 mm diameter)were bonded with light cure resin cement (Variolink Veneer) to enamel surfaces. Teeth bonded with porcelain discs were thermo cycled for 10.000 cycles (5°-55°C) and stored 37°C in distilled water for 24 h. Each specimen was subjected to a shear load at a crosshead speed of 0.5 mm/min until fracture occurred. The fracture types were determined by stereomicroscope. One-way analysis of variance (ANOVA) and multiple comparison (Tukey) tests were used for statistical analysis.
Results: ANOVA indicated the influence of surface treatment was significant *(p*<0.001). The highest bond strengths values were obtained with acid etched or combined groups. The lowest bond strengths were obtained with air abraded, laser etched and the control group.
Conclusions: Conventional phosphoric acid etching remains the most effective and simplest technique and prepared surfaces with Er:YAG laser and air-abrasion did not eliminate the need for acid etching.

97. AN ALTERNATIVE DESIGN FOR RESTORING FRACTURED TEETH BY USING METAL POST WITH CERAMIC CORE: FIVE YEAR FOLLOW-UP

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Introduction: Endodonticallytreatedteethpose a uniquerestorativechallenge. Thischallenge is magnified in theestheticzonewhen an all-ceramiccrown is thedesired final restoration. Whenchoosing a treatmentmodality, thedentistmustconsiderthephysicalproperties of post andcorematerialsandcouplethoseconsiderationswiththepatient'sdemandfor life-likerestorativeresults. Recently, metal, fiber resincomposite (FRC) andzirconia post coresaremostcommon post coretypes. Therestoration of anteriornon-vitalteethwith metal post-coresandall-ceramicrestorationsmayleadtocompromisedestheticbecause of thesemitranslucence of ceramicandthemetaliccolour of underlying post andcores. Instead of using fiber resincomposite (FRC) withlowstrength, unpredictablelongevityandzirconiawhich is nearly impossible toremove from root canal at the time of complication with high costandunfavorablerigidity that mayleadto post androot fractures.

Case: Inthiscase a method was used which combines the mechanical properties of custom-madecast metal postsand optical characteristic of metal ceramiccoating. Therecently developed technique include ceramiclayering of core of the custom-made metal post-core.

Conclusion: This procedure mayprovidesuperioresthetic forteethwithendodontical treatment by masking possible greyish reflection with achieving additional support, strength and natural look with low cost.

98. PROSTHETIC REHABILITATION OF A POTENTIAL COMBINATION SYNDROME CASE WITH MAXILLARY TOOTH-IMPLANT RETAINED OVERDENTURE

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Introduction: Combination syndrome is a pathologic condition of the stomatognatic system characterized by an edentulous maxilla and Kennedy class I partial edentulous mandible. This condition can present a challenging situation to the clinician who needs to assemble evidence from all aspects of dentistry to formulate an appropriate treatment plan. One of the possible treatment choice for this kind of patients is a maxillary overdenture and fabrication of a removable partial denture after splinting the anterior existing teeth. To increase the retention of tooth retained overdententure prosthesis, implant retainers can be used with their succesfull outcomes. In such kind of restorations, tooth-implant retained removable applications which was investigated with small amount of studies, should be carefully evaluated.The purpose of the case report is to illustrate the rehabilitation of a patient with a tooth-implant retained overdenture in order to prevent a "combination syndrome" and discuss other prosthetic choices.
Case Summary: A 69 years old male was referred to the Department of Prosthodontics, Faculty of Dentistry, Near East University with a complaint of chewing difficulties and undesired esthetic condition. Following radiographic and clinical evaluations, it was observed that the patient had a Kennedy class I partial edentulism in both upper and lower jaws. In order to avoid a potential combination syndrome tooth-implant (Astra Tech Inc., Waltham, MA, USA) retained maxillary overdenture with achieving the parallelism in a paralelometer (Cruise 440; Silfradent, S. Sofia, Italy) was performed and a removable partial denture with splinting the mandibular anterior existing teeth was

fabricated for the lower jaw. The patient remained satisfied with the esthetic and function of the prosthesis in the follow-up examinations for 2 years.
Conclusion: By preserving the existing maxillar anterior teeth, the occurance of combination syndrome can be prevented. A satisfying restoration can be achieved with tooth-implant retained overdentures, which was also concluded with recently published studies.

99. OCLUSAL SURFACE WEARING AND TMJ DISFUNCTION

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The changes in dental tissue are reflected in the oral system
These changes are reflected in the tooth surface and also in TMJ. These problems are related to other factors like dental structure, loss of teeth, clenching etc
The aim of the study is to determine the major factors and to plan the proper treatment according to each of them.
Methods: We have examined 29 patients with wearing of oclusal teeth surface. According to the causes we have grouped the patients in : patients with clench problems and in patients with loss of distal teeth. We also used radiological and anatomical - pathological examination. The treatment was planed in correlation with the major factors.
Results: In 48,27% the main cause was teeth clenching and in 51,73% of the cases loss of distal teeth. According to the anatomical pathological examination there was loss of the balance between enamel and terciar dentine.
Conclusion: Determining the major factors which cause damages in dental tissue helps to control the harmful consequences of that.

100. ODONTOMETRIC PROBLEMS BY FIXED LATERAL METAL CERAMIC DENTAL BRIDGES

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The aim of this study is to analyze the frequency of odontometric values of pontic elements by lateral metal ceramic dental bridges of these variables:

-Ocluso-cervical dimension
-Mesio-distal dimension and
-Vestibulo-oral dimension

The clinic material is compound from fixed metal ceramic bridges of lateral sector in Maxilla and Mandible made in Clinic for Prosthetic Dentistry "Protetika AG" in Tetova from 2008 to 2010 year.
There were observed and measured 455 elements of lateral pontics from 151 patient of both sexes, in aged from 26 to 70 years.
The measurement was made with an instrument for precise measure (schubler), with precision of 0.01mm.
The control group was compound from homolog natural teeth.
The occlusion cervical dimension of pontic elements in our study is higher than that of natural teeth on average for "23.49%".
In vestibule oral dimension the pontic elements of our study are on average for "8.82%" narrower that natural teeth.
In mesio distal dimension the mean value of length of pontic elements in our study is for "16.13%" lower than mean value of natural teeth.
Based to the value of T-test ($t=6.75$), and according to the value of coefficient of probability ($p<0.05$), we can say that by our results the statistically significance is important and not by chance.
Respecting the odontometric values of variables by construction of fixed lateral metal ceramic dental bridges, there will be:
Increased the hardness, resistance and masticator efficacy of prosthetic appliances.
Masticator pressure will be dispersed in a suitable manner.
Dental bridge will be protected from deformity and breaking.

101. EFFECTS OF GRINDING ON INTERNAL SURFACES OF CROWN AT PORCELAIN TRY-IN STAGE

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Aim: This study was focused on porcelain try-in stage of metal-porcelain fixed partial dentures. The purpose of this study is to determine metal-porcelain bond strength while grinding on the internal metal surfaces of fixed partial dentures in the porcelain try-in stage.
Methods: Metal specimens with 0.3mm thickness were prepared with custom steel template and lost-wax technique. Porcelain was baked on the metal specimens as 1 mm thickness according to the instructions of the manufacturer's recommended technique. Another custom steel template was used to standardize thickness of porcelain. Then grinding with diamond bur from inner metal surfaces of specimens with determined force and duration were performed. Grindings were performed at 3.5 and 7 N force within 5 and 10 seconds. Thermal aging procedure with 5000 thermal cycle (5 - 55°C) was performed for all specimens. Shear bond strengths

between metal and porcelain were recorded with universal testing machine. t test was performed between control (non-grinding) and grinding group. Two-way ANOVA was performed for multifactorial statistical evaluation.
Results: There is no statistical difference between grinding group and control group (p=0,312). According to two way ANOVA, force affected (p=0,001) shear bond strength, but time didn't (p=0,808). Group of grindings with 3.5 N force showed higher bond strength than group of grindings with 7 N force.
Conclusion: Grindings at the porcelain try-in stage do not affect bonding between metal and porcelain. But grinding shouldn't be performed under high force.

102. DIAGNOSTIC APPROACH AND SPLINT THERAPY ASSESSMENTS FOR BRUXISM: A QUESTIONNAIRE TO THE DENTISTS

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Aim: Before any dental treatment, dentist should be able to diagnose bruxism **and act accordingly. Since the duration, timing, and type (clenching, grinding) of** bruxism affects the treatment modalities, the etiology must be diagnosed before any treatment delivered. For the diagnosis of bruxism, different clinical criterias can be recommended. The aim of this study was to determine which occlusal scheme chosen by dentists during splint therapy for the management of bruxism.
Methods: A 5 item-questionaire was conducted by hand among 300 dentists to investigate their awareness and attitudes towards bruxism in Istanbul, Turkey. For systatistical analysis, SPSS for Winows 15.0 programme was used. Descriptive statistical method (frequency) was used.
Results: 1- Answer from dentist revealed that 92.7% of them made diagnosis asking their patients whether they brux or not. 98.7% of the dentists diagnose the clinical signs.
2- Tooth wear (98.6%) was the most common sign which was taken into account to diagnose bruxism in the clinic. It was followed by cervical abfractions (78.4%), tongue scallop (78.0%) and cheek indendations (77.7%) respectively.
3- 73% of the dental practicioner which pay attention to clinical signs of bruxism, applied occlusal splint to manage bruxism. 63% of the splints were made from soft material, whereas 74.1% of them were made from hard acrylic material. During eccentric movements canine disocclusion (63.9%) was preferred, however 54.6% of the dentists applied group function. Furthermore, anterior guidance was provided by 69% of the dentists.
Conclusion: Most dental practicioner seems to pay attention to clinical signs of bruxism. Hard splints with canine disocclusion and anterior guidance were the most frequently prescribed therapy for the management of bruxism.

103. PROSTHODONTICS STATUS AMONG THE ELDERLY ALBANIANS IN THE MUNICIPALITY OF KICEVO

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Aims: The aim of this study was to evaluate the prosthodontics status of Albanian elderly people over 65years in the municipality of Kicevo in relation with some socio-economic and individual factors.
Method: The examination was conducted in municipality of Kicevo, F.Y.R.O.M and a representative sample of 78 Albanians over 65 years was examined by calibrated postgraduate students. According to the main demographic variables (ethnicity, sex and marital status), the sample represents the population well. Participants were asked to self-report their dentistry scaring experience from childhood, education, oral hygiene habits, habits in visiting a dentist, approximate last year expenditures for dental care and use of care organization in order to assess the relation on these variables with their prosthodontic status. The data were analyzed using the ANOVA statistical package. The analyses were made by descriptive methods frequencies and proportions.
Results: There is nobody from all participants who had not any prosthetic appliance, three of them (3,9%) had removable denture only in one jaw, with partial dentures were 4 of examinees (5,1%), both bridge(s) and partial denture(s) had 28 participants (35,9%) and 43 of examinees (55,1%) were without any tooth. The proportion of elderly over 65 years with 20 or more natural teeth was only 14, 1% (F=21,2,DF=1,p<0,01). Only three of examiners had scaring experience from childhood dentistry (F=45,9,DF=1,*p*<0,01), 45 of examinees (57,7%) brush their teeth once a day (F=19,817,DF=2,*p*<0,01), 54 participants (69,2%) visit a dentist once a year or less (F=10,21,DF=1,*p*<0,01) and 56 participants (71,8%) spent less than 50 Eur per year on dental care (F=12,231;DF=1,*p*<0,01).
Conclusions: There is a high prevalence of toothless Albanian elderly people over 65 years in the municipality of Kicevo. Analyzes shows that most of the citizens has no habit to visit a dentist regularly and very high percent don't brush their teeth every day. The study can confirm the necessity of establishing dental care educational programs in order to improve people's oral hygiene habits.

104. EFFECTIVENESS OF OCCLUSAL SPLINTS AND LOW LEVEL LASER THERAPY ON MYOFACIAL PAIN

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Aim: The present study was designed to evaluate the effect of low level laser (Nd:YAG) and occlusal splints in patients with signs and symptoms of temporomandibular disorders (TMD) caracterized with myofacial pain.
Methods: A total of 20 patient were selected after the diagnosis of myofacial pain (MP) according to the research Diagnostic criteria for Temporomandibular disorder. The patients in the study group were divided into 2 groups: study group (n=10) and control group (n=10). Low level laser (1064nm,8j/cm², 250Mw output power,Fotona) was applied to patients at the study group 1 time a day during 10 days,for a total 10 sessions and the application was on trigger points. Patients in the control group were instructed to wear occlusal splints 12 h/day for 3 weeks. Functional examination was based on Research Diagnostic Criteria for Temporomandibular Disorder and pressure pain values were obtained with the visual analogue scale. Comparisons were made between the groups before and after the treatment.
Results: Pain score values were significantly decreased after laser application ($p<0.05$). The values were significantly decreased after occlusal splint teraphy ($p<0.05$).There was no significantly difference between laser application and occlusal splint teraphy after the treatment ($p>0.05$).
Conclusion: Occlusal splints and LLLT are effective for myofacial pain decreasing. Also this particular type of low level laser therapy is as effective as occlusal splint for pain release.

105. DENTAL VOLUMETRIC TOMOGRAPHY IN THE RADIOLOGICAL DETECTION OF ZYGOMATICO – ORBITO - MAXILLARY COMPLEX FRACTURE

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Introduction: Facial trauma could result in one or more bone fractures. Facial bone fractures most frequently occur in the zygoma or mandible and, to lesser extend, in the maxilla. Radiography plays a crucial role for diagnosis and management of traumatic injuries.
Case summer: This report presents a 30-year-old male with zygomatico – orbito - maxillary complex (ZOMC) fracture determined withdental volumetric tomography (DVT) scans. DVT, provides three-dimensional images, has provided useful diagnosis and treatment planning for midfacial fractures.
Conclusıon: In summary, the whole face evaluation is important during the initial evaluation of ZOMC fractures. The CT scan is often essential in the evaluation for surgery. Dental volumetric tomography can offer an alternative to preoperative CT examinations requiring less radiation exposure as well as less financial and personal effort

106. THE EVALUATION OF IDIOPATHIC OSTEOSCLEROSIS ON ORTHOPANTOMOGRAPHS WITH THE AID OF CBCT

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Aim: The objective of this study was to obtain the prevalance of idiopathic osteosclerosis (IO) in a Turkish population and examine the lessions internal structure with cone-beam computed tomography (CBCT).
Study design: 7502 panoramic radiographs were evaluated which were taken with digital orthopantomograph device in a seven months period. For every patient; id number,age and sex were recorded. If a patient had IO; localization, dental relationship, size and shape of the lesion also recorded. After the evaluations 15 of the patients with IO recalled for CBCT capturing to compare panoramic and tomographic findings.
Results: 273 IO lesions detected in 225 patients (130 female, 95 male and mean age 33.1) 40 of the patients had 2 lesions and 4 of them had 3 lesions. Most of the lesions were seen in mandibular molar and premolar sites. The number of IO lesions were found to be higher in early ages of life especially in the 3rd decades and found to be higher in number among females when compared to males (130 female and %3.1 frequency, 95 male and %2.8 frequency). But statistically there was no significant difference among sexes and age groups ($p>0.05$).
Conclusion: IO had a lower frequency among this population. CBCT found to be useful tool for identifying those lesions.

107. ASSESSMENT OF EFFECTIVE DOSE DURING PANORAMIC RADIOGRAPHY FOR STAFF AND PATIENTS USING TLD-100 CARDS IN ALBANIA

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Practically, the techniques for dental procedures by radiographic film are same basically.
The examinations of dental radiography performed by panoramic apparatus are a unique film technique that allows the dentist to view the entire dentition and related structures, from condyle to condyle, at one film. Dental radiography is one of the largest single group examination performed, although the effective dose per radiograph is small. The individual risks from dental radiography are low, but it has identified a significant potential for reduction in the collective dose and for upgrade the diagnostic quality of dental radiography.
Since 1985, the monitoring of occupational exposures was performed regularly for about 500 workers on a bimonthly basis, using two dosimeters TLD-100 card for each monitored worker. The evaluation of TLD cards is performed through the TLD-REMS programme and processing of results is carried out with RAIS programme. A national Dose Register is created for this purpose, which contains radiation doses for all workers, because the CANP is responsible institution for the monitoring, evaluation of the occupational exposure in country's scale.
The economic impact of our recommendations suggestion to cover all aspects of dental radiography: training and examination regimes for dentist staff, patients' selection and clinical justification for radiography, diagnostic interpretation, equipment and procedural aspects, and finally the question of quality assurance in dental radiography

108. THE EFFECTS OF IMAGE COMPRESSION ON QUANTITATIVE MEASUREMENTS OF DIGITAL PANORAMIC RADIOGRAPHS

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Aims: The aims of this study were to explore how image compression affects density, fractal dimension, linear and angular measurements on digital panoramic images and assess inter and intra-observer repeatability of these measurements.
Methods: Sixty-one digital panoramic images in Tagged Image File Format (TIFF) which were selected during routine patient examination in Oral Diagnosis and Radiology clinic of Selcuk University Dentistry Faculty were compressed to Joint Photographic Experts Group (JPEG) images. Two observers measured gonial angle, antegonial angle, mandibular cortical width, coronal pulp width of maxillary and mandibular first molar, tooth length of maxillary and mandibular first molar on the left side of these images twice. Fractal dimension of the selected regions of interests were calculated and the density of each panoramic radiograph as a whole were also measured on TIFF and JPEG compressed images. Intra-observer and inter-observer consistency was evaluated with Cronbach's alpha. Paired samples t-test and Kolmogorov-Smirnov test was used to evaluate the difference between the measurements of TIFF and JPEG compressed images.
Results: The repeatability of angular measurements had the highest Cronbach's alpha value (0.997). There was statistically significant difference for both of the observers in mandibular cortical width (MCW) measurements (1st ob. p: 0.002; 2nd ob. p: 0.003), density (p<0.001) and fractal dimension (p<0.001) between TIFF and JPEG images. There was statistically significant difference for the first observer in antegonial angle (1st ob p< 0.001) and maxillary molar coronal pulp width (1st ob. p< 0.001) between JPEG and TIFF files.
Conclusions: The repeatability of angular measurements is better than linear measurements. Mandibular cortical width, fractal dimension and density are affected from compression. Observer dependent factors might also cause statistically significant differences between the measurements in TIFF and JPEG images.

109. RADIATION DOSE OF THYROID GLAND EXPOSED BY DENTAL IMAGING DEVICES

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Aim: Diagnostic imaging is an indispensable tool for dental practice. At the recent years there has been a dramatic increase in the use of ionizing radiation for diagnostic imaging. Especially the increasing use of panoramic radiography and cone-beam computed tomography connote the risk of thyroid carcinoma by biologic effects of ionizing radiation. There is a higher risk of influenced thyroid gland for children in dental imaging because of its bigger size. The aim of the present study was to observe the organ dose of thyroid gland by using the dental imaging tools.
Method: A tissue equivalent phantom head of adult male

was used for the study. Calibrated Thermoluminescent dosimeters (TLD) were placed to cover of thyroid gland for observation of thyroid exposure. Than phantom head was exposed by order of conventional intraoral radiograph device, digital intraoral radiograph device, conventional panoramic device, digital panoramic device and cone-beam computed tomography device. After that, TLD's were measured by TLD reader device and the results were compared.

Results: The results showed that the minimum radiation dose was observed by digital panoramic imaging and the maximum radiation dose was observed by conventional full-mouth intraoral radiograph imaging series. The radiaton dose observed by cone-beam computed tomography imaging was showed closer to those of digital panoramic imaging.

Conclusions: Digital intraoral and extraoral devices are safer than conventional ones in dental imaging. So, the practitioner must favour digital imaging devices. Patients must be well diagnosed for using of three dimensional imaging tools.

110. RADIOGRAPHIC FEATURES OF EMBEDDED PRIMARY MOLAR ROOTS IN TURKISH ADULT POPULATION

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Aim: The aim of the present study was to evaluate the radiographic features of embedded primary molar roots in Turkish adult dentulous patients.

Methods: Amount of 5000 adult patients' data including panoramic radiography and demographic information were retrospectively evaluated. Prevalence, location of the primary roots in the jaws, and location of the primary roots to the adjacent permanent root level were determined. The demographic findings such as age and gender, and situation of the primary roots in the jaws like exposing, ankylosis, infection were also determined.

Result: A total of 20 retained primary molar roots with 0.38% were found from 19 patient's panoramic radiographies. Out of the 20 primary molar roots, 9 were found in female and 11 were in male and female / male ratio was found as 1/1.2. Mean age of the patient having primary molar roots was 31.05±14.23. Four primary molar roots were found in the apical 1/3 of the adjacent permanent root, 10 of them were in the middle 1/3 of the adjacent permanent root, three of them were in the coronal 1/3 the adjacent permanent root, and three of them were found in the gingiva, outside region of the the alveolar bone.

Conclusion: The prevalence of the primary molar roots in the present study was found lower than that of the previous study. This finding may result from that the larger patients's data was evaluated using panoramic radiography.

111. THE RELIABILTY OF PANORAMIC RADIOGRAPHY FINDINGS OF THIRD MOLARS COMPARING WITH CONE BEAM COMPUTED TOMOGRAPHY

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Aim: The goal of this study is to compare panoramic radiography and cone beam computed tomography findings in the assessment of the relationship between impacted mandibular third molars and the mandibular canal.

Methods: 73 individuals' (48 male and 25 female) panoramic and CBCT images consisting 120 mandibular third molar teeth were evaluated for the consensus decision by the 3 trained radiologist. Classifications were made to angulation, Pell and Gregory classification, root and mandibular canal relation on panoramic radiographs. On cbct root and canal relations were also obtained. Data were analysed using the statistical software package SPSS 15.0. Differences were evaluated using χ^2 test (significance level was set at $p < 0.05$).

Results: There is a statistically significant correlation between interruption of white line of the mandibular canal on panoramic radiographs and the inferior course of mandibular canal from the roots of third molars. Presence of relation between roots and the canal is statistically significantly associated with the interruption of white line. There is a strong correlation between superimposition of roots and canal on panoramic film and buccal course of the canal in CBCT. Ratio of mezioanguler and horizontal position of third molars were same and the highest as a percentage of 38.3 %. 63.3 % of all teeth were not associated with the mandibuler canal as detected from CBCT.

Conclusion: Interruption of white line of mandibular canal in panoramic view can be highly valuable to predict the risk of nerve injury.

112. RADIOGRAPHIC EXAMINATION OF EDENTULUOS PATIENT IN EASTERN ANOTOLIAN POPULATION

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Aim: Theaim of thestudy is toevaluatethefrequency of positive radiographic find ings in panoramic radiographs of edentulouspatientsliving in eastern Anatolian population.

Methods: Forthisstudy, panoramicr adiographs of 283 edentulouspatientattendingto Ataturk University Faculty of Dentistry, Dentomaxillofacial Radiology
Department with variable complaint were evaluated. The radiograph were evaluated for presence of retainedroot, impactedteeth, radio lusentandradiopaqueareas, maxillars inusclosetothecrest of theridge, mentalforamen on crest, foreignbodies.
Result: Approximately 53.4.% of panoramic radiographs revealed no positive radiographic find ings, while theremaining 46.6% contained 1 ormore positive radiographicfindings.
The most wide spread positive find ingamongtheedentulouspatients of the sample was the incidence of retainedroots. There were 81 retainedroots in thejaws of 53 patients. Accordingtotheage-group of thepopulationsample, it wasfoundthatthemajority of positivefindingsbelongedtothe 50 to 60 year agegroups.
Conclusion: Routine panoramic examination of thejaws is necessary todetect impactedteeth, retainedrootfragments, andother radiographic findings that mayre qui retreatment before construction of completedentures.

113. EFFECTS OF ASYMMETRIC RAPID MAXILLARY EXPANSION IN DENTAL ARCH WIDTHS

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Aim: To evaluate the dental effects of the locked modified acrylic bonded rapid maxillary expansion appliance in treating true unilateral posterior crossbite.
Method: The study was consisted of 14 girls and 16 boys in mixed dentition (mean age 8,74±0,56 years). To asymmetric rapid maxillary expansion, an acrylic lock mechanism was added part of the acrylic bonded rapid maxillary expansion appliance to reinforce the anchorage of the non-crossbite side teeth by including the mandible posterior teeth. When the intended amount of expansion was achieved on the crossbite side, the appliance was removed and a removable plate was used three months for retention. Plaster casts were obtained before and after expansion, and after retention period (three months). Bite registrations were recorded in centric relationship. Plaster casts were trimmed with the backs 90˚ to the median palatal raphe and then moved to the model markers. Occlusal surfaces of casts were scanned to be parallel to the ground with a designed apparatus. Linear measurements were used to evaluate changes in the dental arch widths and to compare the crossbite and non-crossbite side. The changes were evaluated by repeated measurements analysis of variance and paired sample t test.
Results: Although relapse was determined after the retention period, significant differences were obtained in the maxillary intercanine and intermolar widths. *(p<0.05).* Although significant differences were obtained in the mandibular intercanine and intermolar widths *(p<0.05)*, negligible amounts of increase were measured for the buccal movements of the mandibular teeth. Comparison of changes between 2 sides showed that the maxillary canine and molar on the crossbite side moved more buccally than non-crossbite side and corresponding mandibular teeth *(p<0.05).*
Conclusion: Results of this study showed that maxillary dental arch was expanded asymmetrically and true unilateral crossbites were successfully treated. Asymmetric expansion of maxilla was controlled with lock mechanism.

114. A PILOT STUDY: THE EFFECT OF RAPID MAXILLARY EXPANSION ON RESPIRATION PARAMETERS IN ADOLESCENT CHILDREN

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Aim: The aim of this study was to observe the effects of rapid maxillary expansion (RME) on respiration parameters.in adolescent children.
Methods: The study consisted of 7 patients (3 girls, 4 boys, mean age 12,2 years) who had maxillary transversal constriction and undergone orthodontic treatment . Spirometer was used to collect the respiration parameters. Respiration parameters included oxygen saturation (%SpO2), heart rate (bpm), forced expiratory volume (FEV1) / forced vital capacity(FVC) (%) and vital capacity (VC) variables. The first record were taken before application of RME appliances (T0) and the second record were taken after immediately remove of RME(T1) appliances. Datas was assesed by using Wilcoxon non-parametric statistical test.
Results: The parameters showed improvement but there weren't statistically significant differences between timepoints(T0, T1)on RME application in respiration variables (p>0,05).
Conclusions: The respiration parameters did not affected during RME procedure, the effect of RME on respiration need further investigation.

115. CEPHALOMETRIC EVALUATION OF SKELETAL CLASS II DIVISION I AMONG ALBANIAN PATIENTS.

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Aim: To describe cephalometric features of class II division I malocclusion among Albanian patients requiring orthodontic treatment at UFO dental clinic. Since skeletal class II malocclusion may be maxillary protrusion mandibular retrusion or combination we decided to make evident the dominant skeletal pattern of our sample
Method: Source material for this study consisted of 100 lateral cephalometric radiographs of patients seeking orthodontic treatment and resulted skeletal class II division I. The set of indicators for the anteroposterior and vertical skeletal position of the maxilla and mandible for this study were derived from various cephalometric analyses. The cephalometric standarts for comparison were derived from reference standarts or the authors cited.
Results: The results of the study revealed broad variations in the variables analyzed.
According to SNA angle 16 patients 16% were maxillary protrusion.
According to SNB angle 31 patients 31% were mandibular retrusion.
9 patients 9% were combination.
According to facial axis 52 patients 52% were mandibular retrusion.
Regarding the vertical dimension 23% of our sample shows reduced vertical dimension while 60% has normal vertical dimension.
Conclusion: From our study results we did concluded that the dominant skeletal pattern of class II division I Albanian patients is mandibular retrusion with normal vertical dimension. Our results suggest that when possible the preferred method of treatment should be forward movement of mandible.

116. OPEN BITE TREATMENT OF AN ADULT USING RAPID MOLAR INTRUDER

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Introduction: An open bite is one of the most difficult malocclusions the clinician has to deal with.
In the treatment of adult open bite patients without orthognathic surgery, various treatment methods have been used, including multibrackets with elastics, extraction treatment, multiloop edgewise therapy, and others.
The rapid molar intruder appliance consists of two elastic modules that are secured to orthodontic bands on the upper and lower first molars. Vertical forces from these modules typically produce intrusion of the permanent molars in four to six months.
Case report: A 22 years 2 months old female in the permanent dentition presented with the chief complaint of an unesthetic facial-dental appearance. She was a mouth breather who snored at night. Her upper lip was thin, with hypertonic labial musculature. The patient displayed a straight profile with a mildly increased lower facial height. The frontal view reveals an asymmetrical face with dolicocephalic tendencies.
Examination of the occlusion revealed a severe class I malocclusion with an -1,5 mm overjet and -4,5 mm overbite. The analysis of arch length discrepancy showed -9 mm maxillary and -2,5 mm mandibular arch length discrepancy. The maxillary arch was narrow and there was a bilateral crossbite. She had a gummy smile resulting also in poor smile characteristics.
The lateral cephalometric evaluation confirmed the Class I malocclusion. The ANB angle was 0,5˚. The mandibular plane angle was indicated the hyperdivergent facial profile at 41˚.
Following a comprehensive clinical and data-base analysis, we devised a treatment plan involving Alternate Rapid Maxillary Expansions and Constrictions(9 weeks) and after that edgewise therapy using rapid molar intruder for molar intrusion.
Results: At the end of the treatment symmetrical buccal occlusion, midline correspondence, appropriate overjet and overbite, tooth-lip relationship and adequate facial esthetics were achieved.

117. THE CLINIC MANAGEMENT OF THE TRANSPOSITIONED OF THE MANDIBULAR AND MAXILLARY CANINE. (THREE CASES REPORTS)

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Introduction: Tooth transposition is an anomaly in the position of teeth where two teeth of the same quadrant change their position in the dental arch. Studies indicate higher prevalence of upper Canine – First Premolar transposition compared to other types of transposition.
Aime: This presentation describes the treatments of 2 complete unilateral canine transposition with first premolar cases (at the one case the agenesia of the upper laterals was present, and at the other case the agenesia of the second and third upper and lower molars and the left second premolar was present) and 1 case with the mandibulary bilateral canine transposition with the laterals in which the agenesia of the upper and lower second premolars was present.

Methods :.At the mandibulary canines transposition case it has been used fix appliances plus RPE in the lower and in the upper jaw . At the maxillary transpositions canine case with the agenesia of the laterals except the fix appliance at the upper jaw it has been used a lingual hark at the lower jaw and Tru-Flex De-Impachting Springs for the de-impaction of the lower second premolars. At one case using the aerator and the composite fillings the canine teeth are modificated likes the laterals and the first premolars are modificated likes the canine teeth.
Results : The correct functional occlusion and the aesthetic was established at the end of treatment. The treatment time was almost 1 yaer and a half and the patients show a pleasant smile and a functional occlusion .
Conclusion: It is not advised to attempt to correct transposed teeth in the permanent dentition because of the potential risk of damaging the teeth or supporting structures. Therefore, alignment of the involved teeth in their transposed position seems to be the best alternative

118. AESTHETICS IN ORTHODONTICS

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Introduction:, This study will explain the importance of the concept of aesthetics, determinating the explanation of "smile" and the transformation of its perception over years, as well as the different factors that interfere with the concept of aesthetics, like the form of the teeth, diastems, form of the smile arch, etc. Beside the factors that would be explained, it`s important to explain the facial proportions influencing the smile.
Methods: In this study were examined forty people of different ages in the University "Nostra Signora del Buon Consiglio" in Tirana. They were divided in two groups. Fifteen of them are from 19-25 years old, 7 females and 8 males and the rest of them are from 30-75 years old, 15 females and 10 males. The photos of all of them, were examinated with the "Smile Mash" technique to analize the parameters for an esthetic smile.
Results: According to the gender, the attractive females have a more convex profile and the males have a straighter one. Depending on the age, the elder patients show a minor exposition of the maxillary teeth during the smile. Big dimension diastems have a negative influence on the evaluation of an attractive smile.
Conclusion: An harmonious smile must maintain in harmony the curvature of the lips, the exposition of the red zone of the lips, the size of the teeth, absence of the diastems, minimum buccal corridors and all, this in association with the facial scheletal morphology. Computerized techniques are useful for evaluating the smile aesthetic so we may have a more detailed vision.

119. EFFECT OF REPEATED FIRINGS ON THE CORROSION RESISTANCE OF DENTAL ALLOYS

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Aim: The purpose of this study was to evaluate the effects of repeated porcelain firing process on the corrosion rates of the dental alloys.
Methods: Cr-Co, Cr-Ni and Pd-Au alloys were used for this study. Each alloy consists of 30 specimens of 10 for 7,9 and 11 firing each. 10 mm diameter and 3 mm thickness disc-shaped specimens were formed by melting alloys with a propane-oxygen flame and cast with a centrifuge casting machine. Corrosion tests were performed using an electrochemical potentiostat/galvanostat via a test cell with the mounted specimen as the working electrode, a high-purity platinum wire as the counter electrode, and Saturated Calomel Electrode as the reference electrode. Corrosion tests were performed in quintuplicate for each alloy (before and after porcelain firing) in Fusayama artificial saliva solution in a Pyrex glass cell.
Results:. Corrosion resistance of Pd-Au alloy higher than other alloys. Pd-Au>Cr-Ni>Cr-Co.
Conclusion:. Corrosion resistance of dental alloys was getting lower once number of firings increase.

120. EVALUATION OF DIRECT RETAINERS IN PROSTHETIC RESTORATION OF KENNEDY CLASS I DEFECTS.

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Aim: The aim of this study is to evaluate the different direct retainers, mainly clasps and precize attachments used in removable partial dentures for the restoration of bilateral-distal extentions and analysing their effect on the abutment teeth.

Methods: The removable partial dentures evaluated in the study are either with or without a cast framework. In this study, are taken into observation 41 prostheses from 34 patients (16 maxillary and 25 mandibular) aged 38-70 years old. We have analysed the type of clasps used and evaluated mobility scale and clinical conditions of the abutment teeth in each case.

Conclusions: After clinical examination we concluded that the abutment teeth where reverse Akers clasps were applied, had a mobility scale within physiological parameters and overall better clinical conditions compared to the abutment teeth where different type of clasps were used.

121. THE RELATIONSHIP BETWEEN PSYCHOLOGICAL STRESS AND ORAL HEALTH STATUS/BEHAVIOURS IN TURKISH POPULATION

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Aims: The etiology of periodontal disease is multifactorial including certain psychosomatic conditions like anxiety and depression. Moreover, individuals with high stress levels may develop bad habits or become less attentive to any physical activities including oral hygiene measures resulting in worsening of periodontal health and new carious lesions.The aims of this study are: to determine the association between anxiety and depression levels of patients with the personal characteristics of the subjects; to investigate the relationship between dental phobia/habitual behaviours and psychiatric status and; to evaluate the intraoral condition (presence of decayed and missing teeth, periodontal health) with regard to the psychological factors in Turkish population.
Methods: This study was undertaken on 364 subjects applied to the Department of Periodontology, Faculty of Dentistry, University of Erciyes between January- June 2011. Psychological evaluation was performed using the Beck-Anxiety and Beck-Depression scales, each rating from 0 to 3. A seperate questionnaire covering oral care habits and practices was given to the subjects to be fulfilled before the clinical examination.
Results: There were no significant differences between subgroups of age, marital status, dental health visiting patterrn, smoking and alcohol consumption in terms of anxiety and depression ($p>0.05$). There were significant differences between gender, level of education and income, occupant number, parafunctional habits and number of missing teeth in terms of anxiety and depression ($p<0.05$). Statistical analysis failed to detect any significant association between neither the number of decayed tooth nor the severity of periodontal disease and the psychiatric status of the patients ($p>0.05$).
Conclusions: In the limits of this study, Turkish females with dental phobia had higher anxiety scales than those of males. Questionnaires used to evaluate the psychological status of individuals may be quite necessary in the establishment of cooperation between dentists and patients and the determination of treatment plan before onset of any dental therapy.

122. INFECTION CONTROL IN DENTISTRY – DEVELOPMENT OF CURRENT STANDARD PRECAUTIONS

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Infection control guidelines in dentistry have gained professional and public awareness since early 1980s due to the emergence of Human Immunodeficiency Virus (HIV). Apart from HIV, other diseases including Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), *Tuberculosis* and common respiratory tract viruses can be transmitted in dental health care settings if proper infection control measures are not followed.
In industrialized countries the control and prevention of Health Care Associated Infections (HAI's) has been achieved through regulations, public health care measures and education on standard precautions. The goal of dental infection control, which has evolved during the last 30 years, is to break the "chain of infection" and reduce the risk of transmission of infectious diseases. Every patient should be treated as a potential source of infection and same set of infection protocol must be used for all patients. In developing countries, due to lack of policies, standards, protocols, improper infrastructure, and equipment HAI's are twice higher compared to the developed countries. In order to raise global awareness to the patient safety, World Health Organization (WHO) has initiated a call to all health care institutions to consider HAI's control and prevention as one of the most important tasks of the today's healthcare systems. Countries with limited resources should adopt measures for infection control in dentistry in order to:

1. Reduce the prevalence of HIV, HBV, HCV and other professionally transmitted infectious diseases,
2. Advance the dental health care worker's health,
3. Protect the patients from infection diseases, and
4. Decrease the costs related to the treatment of HAI's.

123. THE CONTRIBUTION OF SOCIAL PROGRAMS AT THE GROWTH OF THE EDUCATIONAL STANDARDS

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Aim. The purpose of this study is to present the increase of educational standards at The Faculty of Dental Medicine in Iasi through the application of social programs, with a deep impact on the didactic process. I have also focused on the practical activity of research present at a high percentage in the main disciplines.
Methods. I have taken into account the training of students from the final 2 years, where the number of social programs in our Faculty increased considerably, and assessed the extent to which the educational standards reached our prevision.The last 2 years of study at The Faculty of Dental Medicine in Iasi focus on the students` practical training.
Results. The social programs have provided the perfect framework of development for practical activity on a large number of patients with a variety of oral pathology, with different types of general state deficiencies which led to a good practical training at graduation.
These programs gave the possibility to acquire phantoms in the position of the patient, the simulation introducing the practical work, which will conclude with a successful clinical finality.
The patients' data are kept in electronic files, serving as efficient data basis to create of epidemiologic models, which are bases for the target therapeutic approach.
Conclusions. The social programs provide the framework of hand work augmentation and increase the level of professional and vocational training of the students, giving individual identity to the therapeutic algorithm for each clinical entity of dental medicine. Each clinical case is having a possible ideal therapeutical solution based on a complex algorithm of conception, selection and materialization.

124. DENTAL ASPECTS OF CHILD ABUSE AND NEGLECT (CAN)

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Dentists in general and pediatric dentists in particular, can play an important role in detecting and reporting cases of child abuse and neglect (CAN). This paper discusses CAN indicators to which dentists must pay attention. The paper focuses on detection of physical and sexual abuse and dental neglect which dentists most commonly come across in the course of their work.
It also discusses the degree to which Bosnia and Herzegovina (B&H) dentists are educated about CAN, legal requirements related to reporting of suspected cases of abuse and neglect, as well as the main features of the reporting procedure.

125. CORONAL MICROLEAKAGE OF THREE RESTORATIVE MATERIALS AFTER PULPOTOMY WITH MTA - AN IN VITRO STUDY

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Pulpotomy is one of the most common procedure, which is applied to children, especially in immature permanent teeth.
Purpose: The aim of this study was to asses the coronal microleakage of three restorative materials after pulptomy with MTA: IRM - grup A; glassionomer aqua-ionobond - grup B and composite - grup C.
Methods: Fifteen extracted teeth for periodontal reasons that had been stored in formaline 10% are devided randomly in three groups and after pulpotomy with MTA are filled with above materials according respective groups. The specimens were placed in normal saline and stored in an incubator at 37°C for 24 hours to ensure setting of the materials. The teeth were then thermocycled for 150 cycles, dried and sealed with nail varnish, leaving 1 mm around the restorations and immersed in 0.5% methylene blue dye for one week. They were then rinsed, dried and sectioned longitudinal, and microleakage was evaluated using a stereomicroscope (10×).
Results: According to results, the microleakage was 79,9% for grup A, 29,3% grup B and 11,2% grup C. The microleakage was present in every group, (more frequent in group A) with a statistical difference between groups (p=0.001).
Conclusions: The temporary material was the most compromising, leading to failure of treatment. For this reason, and since MTA does not nesessarely require a moist cotton pellet for setting, the permanent restoration may applied immediately.

126. REALIZATION OF PROFESSIONAL DENTAL PHOTOGRAPHS: THE TECHNIQUES

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Introduction: To each of us it has happened in our daily practice to create very fine and special dental works which we would have liked to document. The best way of documenting still remains the dental photography. But often after a long and excellent work we stuck at the point that should have been the simplest one: taking a photo that suits to the work done and shows the real value of the work. Often, we intend to publish these photos in journals or congresses, but at this point we understand that the photos do not transmit what we would like to show. They came out blurred, we fail to get them in focus, the position and the technique of taking the photographs was not the right one, etc.
Purpose: To show the techniques of taking professional photographs in the field of dentistry for documentation and study purposes
Methods: The use of DSLR cameras (ex. Nikon), macro lenses, ring flash, lips and cheeks retractors, different intraoral mirrors, contrasters, repeatable position of picture taking, processing of photos in computer (organizing, cropping of the excessive parts, etc.). The camera is configured to take extraoral and intraoral photos.
Results: The use of DSLR camera system, associated with an optimal programing for extraoral and intraoral photography as well as the proper techniques of positioning and picture taking made possible the realization of very clear, repeatable and professional pictures.
Conclusions: In dental photography as important as the camera system is their programming, as well as shooting techniques. Proper and repetitive positioning during photo shooting is essential in the presentation of the changes before and after dental treatment.

127. PROSTHESIS ON IMPLANTS WITH INDIVIDUALLY PREPARED CAD-CAM ZIRCONIA CUSTOM ABUTMENTS

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In the daily practice the implant placement we made strictly and rigorously also requires an accurate and rigorous prostheses to get best results. One concern is the restriction that gives standard abutments for an appropriate individual prostheses. CAD-CAM zirconia abutments. Individually prepared custom abutments which provides the dentist for a wider appropriate solutions.

128. PERIODONTAL CONDITION IN HEALTHY SCHOOLCHILDREN AND CHILDREN WITH ALERGIC ASTHMA

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Aims of the study were to assess periodontal condition in school children and to compare the results of periodontal condition of healthy children and the children with diagnosed alergic asthma in order to investigate weather children with allergic asthma were in higher risk for developing gingivitis or periodontitis.
Methods: A total saple size were 420 examinees living in Sarajevo, devided in four groups. The first three groups consisted of healthy children according to the age and in the forth group were children with diagnosed allergic asthma (N=60).
Clinical assessment of periodontal condition and potential risk factors consisted of questionnaire, and clinical investigation comprised by assessment of periodontal condition by CPITN, estimation of oral hygiene by Plak index (Silness and Loe), recording of dental status according to WHO methodology.
Results: In a total sample of 420 participants mean value of CPI was 0.86 (SD±0.792), the most frequent registered CPI code was 1 – bleeding on probing, in 48. 1% of participants. The most prevalent treatment need was TN1 in 48% of participants. There were no significant difference in periodontal condition in group of examinees with allergic asthma and other groups of healthy children.
Conclusions: Periodontal conditions of children changes from period of mixed dentition until adolescents with constant worsening with age and with significantly the worst situation in adolescents were the smallest number of healthy sextants were registered. High prevalence of gingivitis and periodontitis in examined population is great risk for developing destructive periodontal diseases in adults.

POSTER PRESENTATIONS

1. DENTAL CARIES, A SERIOUS MEDICAL-SOCIAL PROBLEM IN KOSOVA

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Aim: The Aim of this study is to present the social-medical importance of tooth decay of children from Kosova, after the evaluation of oral health –for primary and mixed dentition in preschool and school children.
Methods: For the evaluation of oral health the data from our research were used. Dental examinations based on the World Health Organization (WHO) criteria were performed on 3973 randomly selected preschool and school children. Clinical indexes of decayed, missed, and filled teeth (dmft/DMFT) were recorded. Diagnostic criteria was calibrated, with inter-examiner reliability using kappa test. Also, some data from Kosovar and international literature were used.
Results: The **Results** of the study show that the prevalence caries of preschool children is 92%, and mean dmft=5.6. Whereas, in children of 2 years old it is seen that 40% of the subjects have healthy teeth (dmft=0), with increase of the age it is seen a decrease in percentage of healthy teeth. Therefore, in children of 6 years old, only 1.5% of the children have healthy teeth. From dmft index, around 85% are decayed teeth. In preschool children it is seen a high prevalence of an aggressive type of caries – early childhood caries (ECC), from 20.6% and mean dmft around 11. Even in school children the **Results** of the study show a high caries prevalence (94.5%), and mean DMFT from 6.6. From DMFT index, around 74% are decayed teeth. Also, one of the worrisome **Results** is the fact that the DMFT index for first permanent molars is 97%.
Conclusions: The preventive measures that need to be taken for caries prevention and oral health improvement in general are primary preventive actions. At the same time the secondary and tertiary preventive measures are necessary.

2. DIFFUSION IN AGAR OF ROYAL JELLY AND CHLORHEXIDINE

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Aim: Evaluation of the antibacterial effect of royal jelly and chlorhexidine. For our microbiological tests we get a champion of royal jelly. Presented gelatin with white color, aromatic flavor and acid taste (pH 3.5 to 4.5). While, the chlorhexidine taken for testing, is an active ingredient that fights oral bacteria due to plaque formation. Chlorhexidine is the antibacterial agent preferred by dentists for dental practice, especially in the case of continuous gingivitis treatments and treatments before and after periodontal intervention.
Methodology: We have used blood agar plates and through a sterile glass pipette "PASTER" of 7 mm diameter we have made holes in agar. For the purpose of the study we have used a bacterial culture of Streptococcus gr. D (Enterococcus faecalis) with a concentration of 10^5, which was distributed in sterile condition, using a sterile swab, according to the diffusion method in agar.
Results: Zones of inhibition were measured by a ruler and:
- radius of inhibition zone of the hole with royal jelly resulted to be 14 mm,
- radius of inhibition zone of the hole with chlorhexidine resulted to be 20 mm.

Conclusion: The antibacterial effect of royal jelly can be compared with that of chlorhexidine.

3. COMPARISON OF MICROLEAKAGE OF CLASS-II RESIN COMPOSITES UNDER OCCLUSAL LOADING

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Aims: The present *in vitro* study aimed to evaluate and compare the microleakage of two different adhesive systems in Class II composite resin restorations, when occlusal force was applied on the teeth.
Methods: Standardized class II cavities were prepared on 48 extracted human premolars and randomly assigned into four groups of 12 specimens each as follows: Group A, hybrid resin composite without load (control 1); Group B, microfilled resin composite without load (control 2), Group C, hybrid resin composite with load (test 1), Group D, microfilled resin composite with load (test 2). The teeth of control groups (Group A and B) were immersed in 0.5%

basic fuchsine solution for two hours. With a specially prepared apparatus, the test group specimens (Group C and D) were load of 350 g, which was maintained 40 loads per minute at 2 hours, placed in basic fuchsine solution. The constant load was applied vertically parallel to the long axis of the tooth at occlusal surfaces using an aluminum steel rod with a 1.5mm diameter. The dye leakage values were evaluated under light microscope. Statistical analysis was carried out using Kruskal-Wallis test and Mann Whitney U test at the 0.05 level of significance.

Results: Regarding the effect of load, teeth where mechanical force had been applied (Groups D, E) were found to have significantly higher microleakage than teeth without load (Groups A, B) (p<0.05). No significant differences between the Group C and Group D were found for the loaded condition (p>0.05).

Conclusion: Within the limitations of this *in vitro* study, occlusal loading resulted in induced microleakage for both resin composites.

Acknowledgments: The authors report no conflicts of interest related to this study.

4. RETROGRADE RETREATMENT OF TEETH WITH INTRA RADICULAR RESTORATIONS

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The Aim of this study is to analyze the difference of success of retreatment with retrograde filling of teeth with intra radicular restorations, and orto grade filling of teeth with per apical processes.

The examined clinic material is compound from forty-eight teeth with per apical lesions oral surgically treated, divided into two groups. First group(controlled group) is compound from 24 teeth with per apical lesions, and in orto grade way filled included in this study, and second group which is compound from 24 teeth with per apical lesions and with need for retreatment by retrograde way of canal fillings, because they hade intra radcular restorations or metal ceramic crowns.

After a period of one year(twelve months), by all patients was made the clinic and X-ray examination. By first group(controlled group), after twelve months there were find eight cases with complete healing, by ten cases the healing process was uncompleted, four cases were with unclear healing, and only by two cases we have wrong **Results**(failure). By second group(study group) after a same period, by 14 cases the healing was complete, by six cases the healing was uncompleted, and by four cases the healing was uncertain. Concerning the post operative healing of lesions on X-ray, after a period of twelve months, there was not a statistically significant difference between two groups (P = 0,59)

From this study, we can conclude that application of a retrograde filling with surgical intervention apicotomy, could be considered like a minimal invasive procedure which has a positive effect on post operative clinical **Results.**

5. PREVALENCE AND EXPERIENCE OF DENTAL CARIES AMONG 12-YEAR OLD OF SHKODER CITY

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Aim: Prevalence and experience of dental caries in 12-year-old of nowadays in Shkodër.

Methods: This is a cross sectional study. Sample size was 940 participants, 52% males, 48% females. We selected the 12 years-old of nowadays. We used the collected data during the oral investigation done in the primary schools of Shkodër yearly in the period 2005-2011. The investigation was performed by the staff of Public Dental Service of Shkodër. Data was stored in the clinical cartels and then transferred in Excel 2007. The descriptive analysis was used. The sample was divided in 2 groups: Cohort one (size 503) and Non-Cohort one (size 437) according to the data we had for this selection. DMFT, SiC, dmft, D/DMFT, percent of First Permanent Molar(FPM) affected were calculated.

Results: The index DMFT=2.95 (SD=±2.02). SiC=5.02. There is a statistically significant difference between males $DMFT_M$ =2.82 and females $DMFT_F$ =3.11 *(p< 0.05).* This difference is founded even in groups. In the Cohort group we found a decrease of caries experience from age 6 to 12 by $dmft_C$=3.11 to $DMFT_C$=3.06, but this did not happened for girls $dmft_f$ = 2.87 to $DMFT_F$ =3.15. The males of the Non-Cohort group represent the lowest $DMFT_N$=2.65 (SD=±2.06), but D_N^M/$DMFT_N^M$=63% is the highest. The FPM represent 82% of the affected teeth. The MODE of their decay is at the age of 7-8 year-old. Only 13% never experiences caries.

Conclusions: Dental caries index is still high compared with the WHO goals for the 2015. Preventive treatment is needed almost for the FPM. Fissure sealants, topical fluoride application and oral health education should be in our focus.

6. THE PREVALENCE OF EARLY CHILDHOOD CARIES (ECC) IN PRESCHOOL CHILDREN IN THE MUNICIPALITY OF KASTRIOT, KOSOVO

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Aim: The purpose of the present study was to evaluate the prevalence of early childhood caries among preschool children aged between 3 and 5 year in the municipality of Kastriot, as one of the city with the lowest economic development in Kosovo.
Methods: Dental examinations based on the World Health Organization (WHO) criteria were performed on 108 randomly selected preschool children. The teeth were clinically examined with standard dental instruments using visual-tactile method under standard dental light. ECC was defined as "initial occurrence of caries in cervical region of at least two maxillary incisors". Using a careful lift-the-lip examination, the presence or absence of ECC was recorded. Mothers completed surveys regarding children's feeding habits. The surveys contained questions regarding the frequency of sweets preference during the day, sweets consumption between meals and bottle feeding.
Results: The prevalence of early childhood caries (ECC) in children is very high (25%), compared to that of the world population. The mean dmft also was very high, 12.5. Early childhood caries (ECC) was found to be related to the type of feeding (bottle feeding). Most of the children with ECC represent subjects who are bottle fed. Comparing the dmft of ECC children and duration of bottle feeding showed a statistical correlation *(P < 0.001*). However, the number of sugary snacks between meals and a cariogenic diet were strongly related to early childhood caries. The prevalence of early childhood caries increases with age. There was no statistical difference of ECC between genders *(P<0.005).*
Conclusion: The prevalence of ECC was high among the preschool children in the municipality of Kastriot in Kosova. It is recommended to increase knowledge of parents about proper feeding habits and oral health practices, and accessibility of dental services to preschool children.

7. PANORAMIC OVERVIEW ON THE METHOD OF OBTAINING THE FLUORIDE IN ALBANIA

Xhanina Gavazi*, Rozarka Budina, Besnik Gavazi

Introduction: Dental caries is one disease that affects children, adults and the elderly, causing concerns in their lives, pain and suffering and an economic burden. Caries prevention through fluoride is an efficient way to reduce all these problems. Numerous studies have proven the efficiency of the use of fluoride in preventing dental caries worldwide. Obtain fluoride is part of the basic rights to health.
The Aim of study**:** To increase the impact on promotion for the efficient use of fluoride in our country.
Methods: Were taken to study some of the ways of distribution in Albania fluoride through drinking water, toothpaste, with tablets or syrup as well as dental clinics. For this are prepared questionnaires which distributed people of different ages in some shopping centers, counseling centers for pregnant women, pharmacy and dental clinics in the city of Tirana to get information if they know the role of fluoride and the manner of obtaining them.
Results: There are several ways of obtaining fluoride in Albania, but the community is not informed about this product and the role on dental health.In packaged products such as imported water and toothpaste there are not always the Albanian translation and explanation about the value and role of fluoride.
Conclusion: Albanian Dental Society and dentists must step up efforts to promote the role of fluoride in caries prevention and ways of obtaining in cooperation with all governmental bodies, health, social and commercial.

8. USE OF COMMERCIAL SODIUM HYPOCHLORITE SOLUTIONS FOR ROOT CANAL IRRIGATION IN RESPECT TO THE QUALITY OF THE PRODUCTS

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Sodium hypochlorite is the most popular irrigating solution. In concentrations between 0.5% and 6% it is a potent antimicrobial agent, killing most bacteria instantly on direct contact.
The Aim of this study was to investigate the possibility of using some bleach solutions for root canal irrigation.
Methods: Because of its low price, bleach is widely used in *F.Y.R.O.M*. Alkaloid AD Skopje produces 10% and 20% Sodium hypochlorite disinfectant solution that is used in the food industry diluted with water in various concentrations. The Varakina bleach which is a solvent of sodium hypochlorite with a scent of lemon is used for whitening laundry and bed linen. The samples of commercial solutions were taken from the market and tested on the presence and concentration of heavy metals as impurities.
The atomic absorption spectrophotometry (AAS) is used for determination of heavy metals in tested solutions.
Results: Results were compared to the German code standard which allows not more than 20 ppm of heavy metals in hypochlorite solutions used for irrigation.
The obtained results showed that the concentrations of heavy metals in the tested samples were below maximum allowed concentrations for the tap water.
Conclusions: It can be concluded that commercial solutions can be used for root canal irrigation but only

after checking the quality of the product on the content of heavy metals as impurities. The quality of the product can also be evaluated from the batch quality certificate from the producer. It is recommended to use purified water to obtain desired dilution. However, it is always safer to use products specially designed for stomatologic use than commercial sodium hypochlorite products for other purposes.

9. EVALUATING OF DMFT6 IN FIRST PERMANENT MOLAR IN 12-YEAR-OLD

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Introduction: Dental caries is considered as a chronic disease that affects the higher size of the whole population, including children, as well. Dental caries is caused by many factors, mainly from the diet mediated by microbial flora, and the duration of process of these factors.
Aim: of this study is to determine the level of caries at permanent first molar DMFT6 at the age group 12-year-old children in the rural areas and a comparative assessment of the level of dental caries in permanent first molar related to children at the age group 12 year-old in 2012 compared with children, living in rural areas of Tirana in 1984.
Method: There were selected several pupils of a 9-year-old public school in the municipality of Kamza belonging to district of Tirana, included 12 year-old age group (n =264). For the measurement of dental caries experience were operated DMFT6 indices and index CI care. The study was statistically analysed.
Results: The number of all individuals with intact molar caries was 83 (31.43%). DMFT6 index in children examined in 2012 was 1.15, while in 1984 this index had the value 1.82, and CI index care is 0.33.
Conclusion: From the results obtained, we observe a decrease in DMFT6 index, which reveals signs for enhancement of individual hygiene, oral health and consequently carioze disease decline in their permanent first molar.

10. INDIRECT PULP CAPPING OF A MANDIBULAR MOLAR. CASE REPORT

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Aim: This case report aims on focusing on the indirect pulp capping therapy of a deep carious lesion in a permanent molar.
Method: A 16-year-old male patient reported discomfort associated with thermal stimulation on the permanent mandibular left first molar. The radiographs revealed a deep distal carious lesion, very close to the pulp, absence of radiolucencies in the periapical region, and absence of periodontal space thickening. Pulp sensitivity was confirmed by thermal pulp vitality tests. Based on the main complaint and the clinical and radiographic examinations, the treatment plan was established to preserve pulp vitality. Clinical procedures consisted of removing the infected dentin and lining the caries-affected dentin with calcium hydroxide paste. The tooth was provisionally sealed for approximately 60 days. After this period, tooth vitality was confirmed, the remaining carious dentin was removed, and the tooth was restored.
Results: At 4-year follow-up, no clinical or radiographic pathological findings were found.
Conclusions: The motive for choosing this kind of therapy was based carefully on the age of the patient, pulp diagnosis, clinical and radiological findings. There was a great chance of succes given his young age, very well suited for indirect pulp treatment. The dentinal leasion had been well cleaned and lined with CaOH wich stimulates regeneration and helps build a new layer of dentin to protect the pulp from external stimuli.All theese factors added up to maintaining pulp vitality and function over a long time, wich has bin confirmed both clinically and radiographicly.

11. USE OF MINERAL TRIOXIDE AGGREGATE IN THE TREATMENT OF TRAUMATIZED PERMANENT TEETH

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Aims: Dental injures of young permament teeth are frequent finding in children and adolescents. The majority of these incidents may result in pulpal inflammation and necrosis. **The Aim** of this paper was to describe the use of mineral trioxide aggregate in endodontic treatment of

traumatized young permanent teeth with large periapical lesions.

Methods: We report seccsessful treatment of two maxillary incisors with lagre periapical lesions and complete root developement. The canals were gently debrided using K-files in conjunction with 1% NaOCl irrigation. Calcium hydroxide dressing was placed into the root canals before definite obturation. Mineral trioxide aggregate was placed in the apical area of the root canals, and the rest of the canal space was filled with gutta-percha and sealer.

Results: Six months after the definite obturation patients didn't have any symptoms. In both cases, teeth were palpatory and percutory asymptomatic, with radiographic evidence of bone healing and periapical regeneration.

Conclusion: Mineral trioxide aggregate can present an effective treatment option when it comes to traumatized young permanent teeth with endodontic complications.

12. COMPARATIVE EVALUATION ON TRANSLUCENCY CHARACTERISTICS OF FIVE DIFFERENT RESIN COMPOSITES

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Aim: The purpose of this study was to compare the translucency characteristics of three different shades of five resin composites.

Methods: Seven resin discs measuring 10 mm in diameter and 1mm thick were prepared from each brand (Grandio, Gradia Direct, Clearfil Majesty Esthetic and Ceram-X Mono, Filtek Z250) and each shade (A1, A2, A3). Baseline CIE L*a*b* color coordinates of specimens were measured in a custom made viewing booth with D65 illumination on standard white and black background by a spectrophotometer (Easyshade Compact, Vita). The translucency parameter (TP) was calculated for each resin composite and each shade. Results were analyzed using one-way ANOVA and Tukey's test.

Results: For all shades (A1, A2, A3) Ceram-X Mono showed the lowest translucency and Grandio presented the highest translucency. Grandio and Gradia were significantly more translucent than Clearfil Majesty Esthetic, Ceram-X Mono and Filtek Z250 for A1 shade (p<0.05). For A2 shade, TP values of Grandio, Gradia and Clearfil Majesty Esthetic were statistically higher than Filtek Z250 and Ceram-X Mono (p<0.05). For A3 shade, Grandio was statistically the most translucent resin composite among all resin composites. There was no statistical difference between TP values of Clearfil Majesty Esthetic and Gradia and they were significantly more translucent than Filtek Z250 and Ceram-X Mono for A3 shade (p<0.05).

Conclusions: The **Results** of this study revealed that translucency characteristics of resin composites were influenced by the brand in each shade. These changes of translucency parameters may have been due to the differences in filler and organic matrix composition. Information on the relative translucencies of different composites can be very useful for the clinicians in selecting the correct composite for the achievement of optimal esthetic **Results.**

13. ORAL HEALTH STATUS AND TREATMENT NEEDS AMONG PRESCHOOL AND SCHOOL CHILDREN IN MUNICIPALITY OF KASTRIOT, KOSOVA

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Aim: Dental caries as one of the most widespread diseases in the world among others is influenced by economic conditions. Kastrioti is a small town in the central part of Kosovo, which is characterized by poor economic development.

The Aim of the study was to assess caries prevalence, oral hygiene index and treatment needs among children in municipality of Kastriot.

Methods: The number of 219 children (6- to 14-year old) were randomly selected, in only one elementary school that exists in the city. Dental caries and treatment needs were evaluated using standard WHO oral survey Methods. The teeth were clinically examined with standard dental instruments using visual-tactile method under standard dental light. Clinical indexes of decayed, missed, and filled teeth (dmft/DMFT) were recorded. The plaque test of Greene-Vermillion was used. Diagnostic criteria was calibrated, with inter-examiner reliability resulting in kappa = 0.94, based on the examination of 25 children of different ages.

Results: The prevalence of dental caries among children was very high (97%), even 3 % of the subjects were caries-free. Overall, mean dmft, and DMFT scores were 8.5, and 4.5 respectively. There was no statistical difference of caries prevalence between genders *(P<0.005).* The decayed component of DMFT index accounted for around 90% of the scores. The highest dmft means were found to be among 5-7 years age group, while the highest DMFT means were scored by the 12-14 years age group. The need for restorative treatment and extractions was high. The mean Plaque index was 1.5.

Conclusions: Our **Results** showed a high caries prevalence among children in Kastriot, indicating a need

for an extensive program of primary oral health care. It is important to introduce oral health promotion, especially from an educational perspective**.**

14. THE EFFECT OF PEROXIDE BLEACHING AGENTS ON SURFACE ROUGHNESS OF TOOTH-COLORED RESTORATIVES

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Aim: The purpose of this study was to determine the effect of two peroxide bleaching agents on the surface roughness of four tooth-colored restoratives over time.
Methods: Four tooth-colored restorative materials, a compomer (Compoglass F - Ivoclar-Vivadent) and three composite resins (Filtek Z250 - 3M ESPE, Filtek Supreme - 3M ESPE, Grandio - Voco) were tested in this study. Two commercial home bleaching agents (Opalescence – Ultradent Products Inc.) 10% and 20% carbamide peroxide were selected. Thirty cylindrical specimen of each restorative were fabricated, randomly divided into three groups and treated as follows: Group A stored in distilled water, Group B bleached with 10% carbamide peroxide seven hours/day and Group C bleached with 20% carbamide peroxide seven hours/day. All treatment was conducted at 37°C and fresh gel applied and rinsed off daily for six weeks. For the bleached groups the specimens were stored in distilled water at 37°C during the hiatus periods. Surface roughness measurements (Ra, μm) were made after 24h and repeated every week of exposure for six weeks using a profilometer. Data were analyzed using ANOVA and Tukey's test at a level of significance of $\alpha=0.05$.
Results: Samples from control groups showed no significant alteration during all test periods while for exposure to 10% carbamide peroxide only compomer presented significant increase in surface roughness after 6 weeks ($p<0.05$). For 20% carbamide peroxide surface roughness mean values were significantly increased after six weeks for all restorative materials ($p<0.05$).
Conclusions: The effect of bleaching on surface roughness of restorative materials was material and time depended. Bleaching procedures should not be carried out when tooth-colored restorations are presented.

15. TALON CUSP: REPORT OF FOUR CASES WITH EIGHT TALONED TEETH

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Introduction: Talon cusp was described as a tooth developmental disorder characterized by the presence of an accessory enamel projection in the area of the palatal cingulum of maxillary and mandibular permanent incisors, resembling an eagle's talon.
Case Summary: A 23 year-old female patient (Case 1), a 47 year-old female patient (Case 2), a 19 year-old male patient (Case 3) and a 15 year-old male patient (Case 4) were admitted to the Oral Diagnosis Clinic with complaints of tongue irritation during mastication and dental caries. The medical and family history was noncontributory in terms of similar dental anomalies. The clinical extraoral examination revealed no physical abnormalities and no history of trauma. A talon cusp on permanent incisor (maxillary right central, Case 1; maxillary left lateral, Case 2), four taloned teeth (permanent maxillary incisors, Case 3) and two taloned teeth (bilaterally on permanent maxillary right and left lateral incisors, Case 4) were observed during radiological and intraoral examinations.
Conclusion: This paper reports four cases which have totally eight taloned teeth on permanent maxillary incisors causing irritation of tongue and predisposition to dental caries.

16. ORO-FACIAL ABNORMALITIES IN CHILDREN WITH INTELLECTUAL DISABILITIES

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Aims. The Aim of this study is the breakdown of orofaciale anomalies in children with disabilities.
Method: The study was conducted in 130 children in special schools in Tirana and Durres cities in Albania. Children with Down Syndrome, Autism, Mental Retardation, Epilepsy were examined for oro-facial anomalies.
Statistical analysis was performed with the program SPSS VERSION 16 and Chi-Square Test.
Results. 70 individuals had different anomalies oro-facial abnormalities and 60 had no abnormalities with the highest percentage of occupied maloclusion with 24.3% of teeth malposition 22.8%, delayed eruption with 22.8%. With rare anomalies were: 0% number abnormalities,

defects of the palate by 1.4%, form abnormalitites with 1.4% of cases. Abnormalities were more frequent in the group of children with Down syndrome and those with mental backwardness and rare in those with autism and epilepsy.
Conclusions. A large percentage of children with mental disabilities have different anomalies orofaciale.

17. CYTOTOXICITY EVALUATION OF A NEW SELF-ADHERING FLOWABLE COMPOSITE

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The Aim of this study was to evaluate the effect of a new self-adhering flowable Composite on the cell viability of bovine derived cells.
Methods: Cytotoxicity of the self-adhering flowable composite (Vertise™ Flow, Kerr) was analyzed with a dentin barrier test device using 3-dimensional (3D) pulp cell cultures. A commercially available cell culture perfusion chamber was separated into 2 compartments using a 500 µm dentin disk. The 3D cultures were placed on a dentin disk and held in place with a special biocompatible stainless steel holder. Test materials were introduced into the upper compartment in direct contact with the cavity side of the dentin disks according to the manufacturer's instructions. Subsequently, the pulpal part of the perfusion chamber containing the cell cultures was perfused with a medium (2 mL/h). After an exposure period of 24 hours, cell survival was determined by using the MTT assay. Statistical analyses were performed using the Mann-Whitney U test.
Results: In the dentin barrier test, cell survival rate of Vertise™ Flow was similar to the negative control group (p >0.05). However, Vertise™ Flow was different from the positive control group (p<0.05).
Conclusions: Vertise™ Flow was not cytotoxic for the 3D pulp-derived cell cultures.
Vertise™ Flow can be used safely if the remaining dentin above pulp tissue is 0.5 mm or more.

18. A TWO YEAR CLINICAL EVALUATION OF AMALGAM AND GLASS IONOMER CEMENT RESTORATIONS IN PRIMARY MOLARS

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The Aim of this study is to compare the amalgam and glass ionomer restorations in cavities of primary molars.
Methods: 30 restorations of amalgam (Ana 2000) and 30 restorations of Ketac Molar Quick (aplicap) were placed in cavities in primary molars by two trained and calibrated dentists in 42 young patients. The restoration were placed 35 in Class I cavities and 25 in ClassII cavities., The restorations were evaluated at baseline and after two years using modified USPHS (United State Public Health Survey)criteria.
Results: The failure rate (USPHS ratings Charlie) after two years was 10 % for the amalgam restorations and 23% for glass ionomer restorations. The lost of retention was the main cause of failure.
Conclusion: The longevity of amalgam restorations in cavities in primary molars is better than glass ionomer

19. MIXED DENTITION SPORT RELATED DENTAL INJURIES

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Aim. Sporting activities present a high risk of dental injury in children and adolescents, the mixed dentition period presenting the highest prevalence of dental injuries. The epidemiological data and the knowledge of coaches and parents on sport related trauma management are almost uninvestigated in Romania. In this respect, **The Aim** of the study was to gather epidemiological data about dental trauma in mixed dentition children who practice sport activities.
Methods. 348 children participating in organized sports activities were examined in the period January-July 2011 during the annual clinical evaluation at the Sportsmen Ambulatory in Bucharest. Consent for the examination was obtained from the coaches/parents. The traumatic dental injuries were assesed according to IADT's criteria. Data was statistically analized using SPSS 10 for Windows (SPSS Inc., Chicago, USA).
Results. The children were distributed in 11 sports, football being the most practiced (44%). The traumatized children were found in 6 types of sports. The prevalence of dental trauma was 14.36%. The male/female ratio was 6.14/1. A ratio of 1.3 affected teeth per children was found. The most common type of dental injury was the enamel fracture (66.15%). The maxillary central incisors were found to be the most affected. 74% of traumas were produced during organized sports activities.
Conclusions. The loss or damage of teeth structures involves, beside aesthetic problems, high financial expenses immediately or in time. Although crown fractures without pulpal involvement are most frequent, it is important to remember that, in mixed dentition

period, young permanent incisors have open apices. Even in minor traumas, the absence of treatment can lead to further complications. The high prevalence of sports related dental trauma advocates the use of oral protectors as efficient means in preventing these events.

20. EVALUATION OF INTRACANAL LEAKAGE DURING ENDOMETHASONE OBTURATION FOLLOWING CALCIUM HYDROXIDE INTRACANAL MEDICATION

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Aim: To determine the influence of calcium hydroxide intracanal medication, on the apical sealing ability of gutta-percha root fillings (especially in periapical pathologies)when a endomethasone sealer was used.
Methodology: Fifty extracted monoradicular teeth were used. Root canals received endodontic treatment. All the root canals were prepared by step back method. The roots were randomly divided into three groups A, B, and C, by the method of obturation. Group A (10 teeth control group) obturated by lateral condensation of gutta-percha with endomethasone. In group B (20 teeth) calcium hydroxide paste was placed in the canal, and after was totally removed from canal, except 1-1,5 mm from apex, and obturated by lateral condensation of gutta-percha with endomethasone. In group C (20teeth) calcium hydroxide paste was placed in the canal, and after was partly removed from canal,up to 1-1,5 mm from apex, and obturated by lateral condensation of gutta-percha with endomethasone. Teeth dyed, sectioned horizontally and observed for mikroleakage with microscope.
Results: Leakages were more evident at middle 1/3rd level, more in group C. Leakage were not significantly at apical level between groups, slightly more in group A. There was no statistical difference between group B and C.
Conclusions: $CaOH_2$ has a dual action during periapical pathologies treatment: first stimulates healing of periapex and second forming eugenolat provides a stop or matrix against which the gutta-percha and sealer may be condensed more effectively.

21. COMPARISON THE TENSILE STRENGTH OF COMPOSITE REINFORCED GLASS FIBER BRIDGES IN TEETH, PREPARED WITH SINGLE ACID ETCHING AND TEETH WITH COMBINATION OF LASER PREPARATION AND ACID ETCHING

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Introduction: The glass fibers and high-intensive lasers enter more often in dental practice. In fibers' structure the glass demonstrates unexpected properties: it doesn't blow out, it doesn't break, it bends without destroying. These qualities gives them exclusive strength.
During the last years lasers found application in the tooth preparation, where they leave rough surface, free of smear layer.
Methods: There were prepared 20 stone models with included two natural teeth, arranged like between the teeth is left space for one premolar or molar. They were separated in two groups. In the first group were included 10 models, where were thinned cavities of the teeth with the turbine and diamond bur. The teeth from the 10 models in group 2, were prepared with Waterlase Er,Cr:YSGG.
On every model, there were made composite adhesive bridges, with the usage of reinforced glass fibers Everstick C&B (Sticktech,Finland). In the cavities of the surrounding teeth were put the main fiber, and after that another additional fiber was put on the vestibular surface. The fibers were covered with composite and the pontic was modeled.
The strength of the adhesion of the bridges was tested after 24 hours with a testing machine. There was made pull-out test with weight of 20 kg in experimental testing.
Results: The bridges in the two kinds of models showed high values in the result. Those, prepared with laser, showed lower rates than those, thinned with the turbine.
Conclusion: Between the models from the two groups there were difference in the **Results.** Among the samples, prepared with turbine,during the test we obtained that they had fractured cohesively at the fiber bundle. All laser specimens were debonded adhesively from the teeth, which shows worse connection between the fibers and teeth surface.

22. EVALUATION OF ROOT CANAL BACTERIAL LOAD USING CHX2% AS A FINAL IRRIGANT

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Aim: To determine, bacterial load on root canal after use of CHX 2% as a final flush, and to compare it with bacterial load before using it.
Methodology: Forty single rooted teeth with apical periodontitis received endodontic root canal treatment. After gaining access to the root canal, bacterial load on the canal walls was sampled (Sample 1). A second sample was taken after chemo-mechanical preparation of the canal had been completed, using a combination of NaOCl 3% and EDTA 18% (Sample 2). A final sample was taken after using CHX 2% as a final rinse (Sample 3). Following incubation, the total colony forming units (CFU) were counted.

Results: The antibacterial efficacy of NaOCl is increased when it used in combination with other solutions as EDTA, CHX. Use of CHX as finial irrigant resulted in a greater reduction of microbial flora.
Conclusions: Currently, no single wided – accepted protocol for irrigation during endodontic therapy is recognized.
Ideal irrigation is therefore a combination of multiple irrigants. Optimal irrigation is based on the combined use of two or several irrigating solutions, in a specific sequence, to predictably obtain the goals of safe and effectice irrigation.

23. A HISTIOLOGICAL STUDY REGARDING TEETH THAT HAVE BEEN RESTORED USING COMPOSIT MATERIALS

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Aim: Assesing the histological aspect of the dental pulp in teeth that have been previousley restored with composite materials.
Methods: this study focuses on the differences in pulp reactions, between teeth restorated with composites and those restorated with glass ionomer. The total number of cavities being restored was 30, all in vivo, on vital teeth. Theese cavities were prepared on first premolars and third molars, then restored and monitored for a period of 50 days. After 50 they were extracted for orthodontic pourposes. Of the 30 cavities, 10 were filled with Filtec, over a Calxil base lining, 10 were filled with Filtec without any type of pulpar protection and the remaining 10 were control cavities, filled with Ketac Molar. After 50 days of monitoring, the teeth were extracted and histological cups were made and studied under an optical microscope. The histological staining used was hematoxyline eosine. The degree of pulpar inflamation was then assesed.
Results: 6 out of the 10 Filtec restorations that lacked pulpar protection have showed signs of infalmation, only 2 out of the 10 restorations where a Calxil lining was used showed slight signs of pulpar edema. The control group showed aspects of healthy pulp, and a layer of tertiary dentin.
Conclusions: the base CaOH lining has an important role in pulp protection especially in the case of deeper cavities, wich are in the vecinity of the pulp chamber. The hyibrid layer formed constitues a barrier against the external stimuli,reducing pulp irritation and post-treatment sensibility .

24. EVALUATION OF DENTAL TREATMENTS AND GENERAL ANESTHESIA IN HEALTHY AND DISABLED CHILDREN TREATED UNDER GENERAL ANESTHESIA

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The Aim of this study was to compare healthy and disabled (mental, physical and medical disabilities) children treated under general anesthesia with respect to distrubition of dental procedures, and medical records obtained from pre-, intra-, and post-operative stages.
Methods: Treated children were healthy (G-H=64) and disabled (G-D=61). Dental records were obtained from intra-operative stage, which included modified classification for type of dental procedures carried out in primary/ permanent teeth (T1 to T6) and the classification for frequency and number of application (L1 to L4). Medical records were obtained from pre- (age at the time of dental treatment and ASA categorization), intra- (induction of GA and complication of GA), and post-operative (immediate postoperative complication in postanesthetic recovery room and postoperative discomfort after the first day) stages. The data were tested statistically.
Results: There were no significant differences in the type of dental treatments (T1 to T4) between G-H and G-D (*P>0.05*). The mean numbers of the treatments in G-H and G-D were 12.4 and 14.0, respectively. In both groups, the majority of types of dental treatment were restorations (%60.2), while the minority was endodontics (%8.8). There were significant differences in the number of procedures and L1 to L4 levels between G-H and G-D(*P<0.05*).
There were significant differences between G-H and G-D for preoperative stage (*P<0.05*). In 4 of the 122 children, intraoperative complication occured, but there was no significant difference between the groups (*P>0.05*). There was a significant difference between the groups with regard to postoperative immediate complication (*P<0.05*), but no difference for postoperative discomfort after the first day (*P>0.05*).
Conclusions: The children in the G-D needed dental treatment more than those of G-H. G-D should be monitored closely during pre-, intra-, and post- operative stages because of the higher risk of general anesthesia than G-H.

25. MICROHARDNESS OF ROOT DENTIN: EFFECT OF ENDODONTIC TECHNIQUES AND IRRIGANTS

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The Aim of our study is to measure and evaluate the effect of standard step-back (k-file) endodontic technique and rotary (Pro-taper) endodontic technique followed by irrigation with 2,5% Natrium hypohlorite alone or combined with 17% EDTA on microhardness changes of root canal dentin.
Method: Forty mandibular human unerupted trird molars were sectioned transversely at the cemento-enamel junction and the crowns were discarded.. The data were recorded with Vicker's hardness test, 0,5mm from the orificium of the canal before and after the endodontic treatment. Subsequently, each root was instrumented as following: group (1) step-back technique and irrigation with 2,5% Natrium hypohlorite, group (2) step-back technique and irrigation with 2,5% Natrium hypohlorite and 17% EDTA, group (3) crown down and irrigation with 2,5% Natrium hypohlorite, group (4) crown down rotary and and irrigation with 2,5% Natrium hypohlorite and 17% EDTA.
Results: Both techniques caused significant reduction of the microhardness of mineralized dentin with the largest reductions observed after combination of 2,5% Natrium hypochlorite with 17% EDTA. ANOVA statistical test is $p<0,01$ for group (2) and group (4).
Conclusion::Clinicians must be aware of reducing denting thickness parallel with dentin hardness which may lead to premature fractures and cracks especially after use of chelators.

26. DENTAL THERAPEUTIC INTERVENTIONS WITH LITTLE ANIMALS: CASE REPORT

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Introduction: The scientific and the technological advancements made in the dentistry in the last decade its being used in the veterinary medicine for therapeutical aspect in order to improve dental health of animals.
Aim: In this case report we present our dental therapeutic intervention on a dog, which is an only specimen of its race in our coutry i.e. the Japaneese race Akita Inu or a Samurai dog.
Study design: After the examination of the dog's oral cavity we have found a fracture of the corona of the maxillary canine i.e. tooth 24 (dogs have 3 pairs of incisives in the maxila). There was also a visible damage of the gums, fistulous formation and hiperemia. We realised endodontic treatment on the damaged tooth and it was succesfull for a period of three months. After that period there was a remision of the simptoms. The operative therapy that followed confirmed a presence of a vertical fracture af tooth 24 after which the tooth was extracted.
Conclusion: Eighteen months later, the four-legged patient is in great shape and with perfect oral health, even though it's missing one of its canines.

27. MASSIVE CROWN CARIES DEFECT AND CONDITIONAL-PERMANENT RESTORATION

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Aims: When caries destroys a large segment of the permanent dental crown and causes root canal infection in children, we are faced with an unusual problem – how can we make a high-quality, stable, and esthetically pleasing restoration after a root canal treatment?
Methods: Prosthetic crowns should not be used in children since they are still undergoing development and growth of the face and jaws. A better alternative to this is to install fiber-post in the root canal as a permanent solution and to use composite restoration of dental crowns as a temporary solution.
Results: Using the above method, the patient achieved a cured root canal and a satisfying esthetic outcome.In this case we include 13,12,11,21,22,23 teeth.
Conclusion: The consequence of the above approach is a bone substance protected from damage caused by resorption and a pediatric patient whose teeth remain functional, without esthetic and psychological problems. After such a patient concludes jaw development, permanent prosthetic restoration can be completed with metal ceramic or metal-free ceramic crowns. This method eliminated the need for tooth extraction and the danger of bone resorption with resulting deformations.
Supported by grant of Ministry of Education and Science, Republic of Serbia No III 46009

28. CONTEMPORARY ASPECTS OF CARIES PREVENTION IN CHILDREN

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The analysis of the trends of the caries dispersion in the developed countries in the last 40 years, show significantly diminished values of CIA (caries index average) from11 to 4. But, the situation in the developing countries is completely different. The caries goes upwards, and CIA is increased for 5 points in the last 20 years. (WHO 2000)
The purposel of our study would be to suggest a strategy for preventive dental protection which will be applied on the whole territory of the country and will be aimed to stop the further expansion of the dental caries and its repercussions.
For the practical realization of this aim, the pregnant women, children and adolescents would be included. The preventive scheme would be planned and conducted according to basical statistical data of the number of citiezens and professionals (specialists in pediatric and preventive dentistry, dentists, deThe analysis of the trends of the caries dispersion in the developed countries in the last 40 years, show significantly diminished values of CIA (caries index average) from11 to 4. But, the situation in the developing countries is completely different. The caries goes upwards, and CIA is increased for 5 points in the last 20 years. (WHO 2000).
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Conclussion Results would be the KEP of 6.9 for 5years 5.5(p.0.01)

29. INDIRECT CERAMIC INLAY RESTORATIONS (SASE REPORT)

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Introduction: Among tooth-colored restorations, ceramic inlays are considered to offer the best aesthetics, given the possibility of exact color matching with natural tooth tissues and perfect restoration of contact points between teeth.
Methods: The patient, a 29 year old female presented with complaint of provoked ache in the upper left quadrant. A complete examination was performed that included radiographs. Clinical findings revealed proximal caries localized on mesial and distal surface on upper first and second premolar teeth, with intact oclusal surface and small proximal caries on the first molar. Her medical history was unremarkable and there were no contraindications to dental treatment. Treatment options were discussed with the patient and it was decided to restorate the caries lesions with two ceramic inlays on the premolars, with indirect technique. Upon removing the decay, a glass ionomer base was placed to protect the pulpal floor. An impression was taken from the prepared teeth and from the antagonist and casts ware made in dental technicians laboratory. The two inlays were made from press ceramic (DENTSPLY, Finesse® All-Ceramic). The ceramic inlay restorations were placed with resin cement for metal-free on etched and bonded tooth surface. This report includes the data of a 6 month follow-up.
Conclusions: After follow-up there were no sign of any kind of changes in the restorations. All-ceramic inlay restorations with indirect technique give the best aesthetics and functions rehabilitation of decayed posterior teeth.

30. PREVALENCE OF DENTAL CARIES IN 12-YEAR OLD SCHOOL CHILDREN IN BERANE

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Caries is one of the most frequent oral diseases, not only in children and adolescents, but also in other age groups. The analysis of recent publications on caries distribution in children, adolescents and adults has revealed that caries remains a substantial health and social problem in Eastern and Central European countries.
The Aim of this study was to determine objective and accurate data about oral health of 12-year old school children in northern Montenegrin municipality of Berane, as standardized oral health monitoring group, suggested by WHO.
Methods: The study comprised 280 12-year old school children of both sexes from elementary schools in municipality of Berane. Dental check-up was conducted by a single dentist-specialist in children and preventive dentistry using daylight, dental probe and dental mirror. Patient charts were used to document the teeth with cavities, extracted or teeth with fillings. The parameters used for the oral health condition was DMFT.

Results: Data analysis has revealed that the mean DMFT value was 5.95. In the study of DMFT dominant component was decayed teeth (61.3%), teeth with fillings (28.6%) and extracted teeth(11.1%).Percentage of children that had all healthy teeth was 9%. Prevalence of caries was 91%. Caries was observed most frequently in upper and lower molars and least frequently in lower anterior teeth.
Conclusion: Children aged 12 in Northern region of Montenegro have great percentage of teeth with cavities that are untreated, that implicates starting organized preventive programs and more educated dental health care providers.

31. REGENERATIVE ENDODONTIC TREATMENT PROTOCOLS

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Aim: To conduct a review of the literature on regenerative endodontic treatment protocols of non-vital immature teeth.
Methods: A MEDLINE (PubMed) search to March 2012 was undertaken. Keywords used were "(regenerative OR revascularization OR revitalization) AND endodontics". Inclusion criterionapplied was English language, while exclusion criterionwas animal studies. The relevant studies were obtained andclassified according to thecompletion of treatment in one or more appointments, the induction of apical bleeding and thetype of scaffold.
Results: Four different protocols are described. They are all based on chemical disinfection of the root canal system by copious irrigation and placement of a bacteria tight coronal seal. Treatment can be completed either in a single appointment without a scaffold; or in multiple appointments, using an interappointment dressing,without or with a scaffold. In the last case, two types of scaffolds have been applied: the blood clot evoked in the root canal by irritating periapical tissues or platelet-rich plasma.
Conclusions: Treatment modalities based on biological principles of dentin-pulp function and carefully evaluated biomedical applications can open new directions in the management of necrotic immature teeth. More research is needed to establish the efficacy of current regenerative endodontic treatment protocols.

32. A CORRELATION BETWEEN CLINICAL AND PATHOHISTOLOGICAL DIAGNOSIS OF CHRONIC PERIAPICAL LESIONS

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The diagnosis of periapical lesion is based on clinical signs and radiographic presentations, which are only empiric **Methods.** The final confirmatory diagnosis is performed only by histopathological examination of the tissues **The Aim** of the present study was to determine the types of periapical lesions in teeth treated with periapical surgery and to evaluate the correlation between clinical and histopathological diagnoses of chronic periapical inflammatory lesions.
Methods: Anamnestic data were taken from each subject comprised in the study and clinical examination and radiography was performed. Chronic periapical tissues were collected during periapical surgery from 80 teeth with clinically and radiographically verified different chronic periapical lesions (43 granulomas, 17 diffuse periapical lesions and 20 cysts). After root-end resection, the root tip was removed together with the periapical pathological tissue and processed for histological and pathological definition by light microscopy analysis on standard paraffin and semithin cross sections.
Results: Histological analysis revealed five categories of inflammatory response: granulomas were registered in 56.3%, 16.3% were cystic lesions, 13.8% were periapical abscesses, 8.8% diffuse chronic inflammations and in 5% periapical scar tissues were found. Correlation between clinical and histopathological diagnoses was not signifficant (χ^2= 4,9 d.f=8 p=0,76) and clinical examination was pathohistologically confirm only in 50% of cases.
Conclusions: Histopathological studied of the speciments showed that there was no obligate correlation between the types of lesions and the clinical signs and symptoms of the patients.

33. ROOT RESORPTION IN DENTAL TRAUMA

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Aim:: Study the prevalence of root resorption after luxation or avulsion injuries on permanent teeth referred in Clinical Hospital Center of Montenegro.
Method: We observed 11 patients with dental trauma ; 40 female, 70 male ;aged between 18 and 55 years.90 permanent teeth had sustained luxation or avulsion injuries. Only 5 avulsed teeth had been replanted within 30 min. after avulsion. 36 avulsed teeth had been endodonticaly treated. These cases were followed for 3 year.
Results: Permanent teeth luxation and avulsion injuries occurred most often in upper incisors (70 %) of patients mostly aged 18 – 25 years, with males more commonly

affected than females (75% vs 25%).Root resorption was observed in 42 of these cases. Of the 42 cases with resorption, 7 were associated with luxaton injury (20%) while 35 (80%) with avulsion. We differentiated 30 cases of inflammatory root resorption and 10 cases of ankylosis and osseous replacement.

Conclusion:: The prevalence of root resorption and complications are bigger in avulsion injuries on permanent teeth mostly due to the inadequate transport media of the avulsed tooth, long period between avulsion and reimplantation and bacterial contamination during extra – alveolar storage seemed the most critical.

34. THE VALUATION OF VARIOUS, ROOT CANAL FILLING MATERIALS, IN PRIMARY DENTITION

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Introduction Endodonty plays an important role in maintaining the health of teeth pulp.The right endodontic treatment affects on preserving the integrity of the teeth in dental arcade up to the period of permanent teeth eruption.Pulpectomy is the safiest method not only for the bacterial elimination and their products,but also to provide a hermetic filling of the root canal in primary dentition. There are used some popular pastes,used for many years, like ZnOE and up to nowadays pastes like: Maisto,Vitapex/Metapex dhe Endoflas.

The Aim of this study,is to assess clinically and radiologically the success of pulpectomic treatment using different pastes like: Maisto,Metapex/Sealapex,Endoflas.

Method There were taken in study 75 children aged 4-10 years old with pulpal and periodontal complications. They were treated in The Universitary Stomatological Clinic and in private clinic.The number of the teeth that were treated was 90, 33 of which were maxillary incisors and 57maxillary and mandibulary molars.They were treated with the pulpectomy method,using the pastes that are mentioned above.30 teeth were sealed with Vitapex / Metapex,30 of them with Maisto and 30 ones with Endoflas.They were kept under observation for a period of one year,clinically and radiologically. The study will be elaborated in DBASE IV program.Data will be analyzed in SPSS and Exel.There will be used student's t-test for two different samples as couples.Each value less than 0.05 will be considered significant.

Results The percentage of the clinical success,of the teeth sealed with Maisto, was 78%.For those which were sealed with Metapex/Sealapex it was 83% and for those,treated with Endoflas the percentage was 92.8%.Only one tooth sealed with Endoflas, ended up extracted, which shows the high level of effectivity of this paste compared with others, that are used for the filling of the canals in the primary denticion.

Conclusion: Due to the combination of its elements, the pastes that are used nowadays in the primary denticion are really successful, but Endoflas remains the most successful one.

35. PERMANENT TEETH WITH ROOT FRACTURES AFTER DENTAL TRAUMA: A CASE REPORT

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Introduction: Compared to other dental traumas, root fractures are relatively uncommon, especially with immature root development. The frequency of root fractures in permanent teeth is only 0.5% to 7%.The classification of horizontal root fractures is based on the location of the fracture line (apical third, middle third, cervical third of the root) and on the degree of dislocation of the coronal fragment. The histological reactions at the fracture line are categorized into four types: interposition of calcified tissue, connective tissue, bone or granulations tissues, caused by an infected or necrotic pulp with demande endodontic treatment. The prognosis of the root-fractured teeth is good, and one-third of the teeth possessed a vital pulp at the final examination.

Case report: An 8-year old boy was referred to the Clinic for Paediatric and Preventive Dentistry, School of Dentistry University of Belgrade, with injuries of central maxillary incisors. Intraoral examination and radiographic analysis was revealed:

11 Fractura radicis dentis with immature root development,

21 Luxatio dentis with immature root development

Methods: After local anesthesia, manual reposition of the coronal fragment was performed, and the fragment was stabilized with fiberglass composit splint 53 -63. The patient was also treated with tetracycline antibiotics. The follow-up examinations were conducted at a 10 days, 1, 2, 3, 6, and 12 months. The study parameters were pulp sensitivity at the time of injury, fragment diastasis, and dislocation of the coronal fragments. After two months, splint was removed. After one year, there has been no change in the tooth color, vitality of the teeth is preserved and radiographs has also demonstrated callus formation without pulp canal obliteration or external root resorption. After that time, the patient has never been returned for a regular recall.

Conclusions: Analysing the obtained **Results**, it can be concluded that an appropriate treatment plan after injury is important for a good prognosis. Supported by grant of Ministry of Education and Science, Republic of Serbia No. III 46009.

36. DENTAL HEALTH STATUS WITH THE CHILDREN IN PODGORICA, MONTENEGRO

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Aims: Oral health is very important for the function and the quality of peoples life.The aims of this study were to establish the spears of caries on the permanent teeth with the children at the age of 12 in capital city in Montenegro. **Methods:** The research was carried out within 2009. and included 2112 primary school pupils of both sex,the age of 12 in Podgorica. Examinations have been done out by two calibratet examiners (kappa score 0.93).The parameters that have been used for the estemate of the oral health condition were:DMFC,SiC and presence of sealants.One dental team clinicaly examined all subject in line with WHO methodology and criteria.All chosen children from the sample were checked by the standard dental diagnostic eqipment (plane dental mirror,standard CPITN periodontal probe),under the artificial light on the dry teeth on the dental chair.**Results:** The average value of Index DMFT at the 12-years-old in Montenegro was 3.96.On average,93.2% of the egxamined children from this sample had dental caries.Percentage of non treted caries was 47.5%, percentage of filled was 48.6% and missing teeth was 3.9%. The SiC Index was 6.8. Among the examined children, 11.1% had at least one tooth with a fissure sealant.**Conclusions:** After these epidemic researches we can conclude that the oral health condition with the children at the age of 12 in Montenegro is not satisfoid. In accordance with this is should be emphasized the importance of the modern preventive measures and programs and apply through the system of the primary oral protection and work intensively on the promotion of the oral helth.

37. TREATMENT OF DENTAL FUSION: A CASE REPORT

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Dental fusion, ceramic laminate, dental anomaly, number anomaly, volume anomaly

Introduction: Fusion in dentistry occurs as a result of the combination of 2 different dental buds. This anomaly can be detected by numerical absence of teeth in the dental arch and radiological examination. Although its etiology is unkmown, it is generally accepted that it is related with genetic and mechanical factors, viral diseases during pregnancy and extreme uptake of vitamin A. Teeth with fusion anomaly may possess different or common pulp chambers or root canals. This case report describes a fusion anomaly in which oligodontia and giant tooth formation was observed due to the combination of crowns and roots.

Case report

A 22 year old male patient presented to our clinics with complaints of esthetics in the anterior region. During intraoral examination, it was concluded that the fusion might have occurred due to the combination of crowns of tooth numbers 21 and 22. In the meantime, it can also be considered that fusion occurrence might also result from the transposition of lateral and central incisors. After model analysis and wax model adjustments, it was decided that teeth no. 12, 11 and 21 will be restored with ceramic laminates. Laminate preparations were performed for teeth no. 12 and 11 during the first appointment. A cavity preparation was made on the surface of tooth no 21 where fusion existed, in such a way that it was compatible with both central and lateral tooth morphologies and a dental papilla was also included. After the prepared laminates were adjusted to the prepared teeth, their adhesive cementations were performed.

Conclusion::

This study exemplifies the correction of dental oligodontia and volumetric differences due to fusion in the anterior region by ceramic laminate application with minimal preparation.

38. CLINICAL ASSESSMENT OF REMINERALISATION EFFICACY OF SOME TOPICAL AGENTS, HAVING DIFFERENT COMPOSITION

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The Aim of this in vitro study was to compare the remineralizing effect of three topical agents with different composition: (A) 0,275% sodium fluoride solution - Fluorostom, (B) topical crème containing Recaldent™ CPP-ACP (Casein Phosphopeptide - Amorphous Calcium Phosphate) - GC Tooth Mousse, (C) calcium phosphat, fluoride gel - Reminal Ca/P-F.

Methods: Fifty eight demineralisation lesions (white spot) were randomly divided into 4 groups. This lesions were analyzed and monitored by discolorations means with 2% methylene blue solution, evaluating the evolution of lesions at 6 and 12 months. During the research period, the demineralisation depth was also evaluated. Staining intensity of the process was measured with a stadard graduated scale from 1-10 standard blue color spectrum, so the interpretation of demineralisation depth was possible.

Results: According to the **Results** obtained in this study can be stated that there were significant differences between compound containing casein derivatives coupled

with calcium phosphate (CD-CP) and the one containing sodium fluoride (NaF) (p <0.05). No differences were found between semnificateive solution containing NaF and one containing CaPF.

Conclusion: Analyzing the **Results** we found that the most effective in a shorter time proved to be the calcium phosphate preparation. However as time efficiency (6-12 months) better remineralization capacity is observed in fluoride preparation. Effectiveness, concentration, duration of action of fluoride products in the oral environment are correlated with the nature of chemical structure and its mode of administration (dose and concentration, duration and frequency of application).

Acknowledgements: As far as the authors are aware, there is no conflict of interests.

39. THE MINERAL COMPOSITION IN THE INITIAL PHASE OF AN EARLY CHILDHOOD CARIES

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This study was designed to address the issues in the dental care since early childhood and to introduce the importance of the dental awareness for the oral health to the people.

Aim: - The main purpose of this study is to study the changes of the mineral composition in the initial phase – white spot (macula alba) of the early childhood caries, before and after the application of the topical fluoride treatment.

Methods: - The laboratory examinations were completed within the Institute of Medical Diagnostics and Research in the Biomedical and Natural Sciences, at the Faculty of Medicine in Nis, by Energy Dispersed Spectrometer (EDS) and included the qualitative and quantitative microanalysis of the changes in the mineral composition (Ca, P in correlation to Ca / P).

In these examinations, we extracted deciduous incisors in the period of its physiology change and three groups of teeth samples were made:

I Group –10 maxillary incisors with *an initial lesion*, II Group -20 healthy mandibular incisors and III Group –10 maxillary incisors with an initial lesion treated by topical fluoride treatment (sol. Aminofluoride).

Statistical analysis: Analysis of Variance (ANOVA), Turkey HSD-test

Results - The overall EDS – analysis of the mineral structure of some groups of samples show significant effect of the topical fluoride treatment which increases the presence of calcium and phosphate values in the dental enamel. That is significant remineralizing process in the initial lesion. In some cases the treated samples have obtained a mineral composition of the enamel very similar to the one of a healthy tooth.

Conclusion: - We concluded the following: in case of caries got in the early childhood a topical fluoride treatment added in the initial stage could bring to the complete reparation, but only if a solid hygienic and diet regime is provided. Otherwise, the fluoride by itself can not cancel the destructive influence of the inadequate diet and oral hygiene.

40. A COMPARISON OF THE TREATMENT APPROACHES AND COSTS BETWEEN THE COOPERATIVE AND THE UNCOOPERATIVE CHILDREN WITH EARLY CHILHOOD CARIES, TREATED IN A ROUTINE DENTAL CLINICAL SETTING AND TREATED UNDER GENERAL ANESTHESIA

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The Aim of this study is to compare the dental dmf-t scores of the cooperative and uncooperative, healthy and medically compromise children with Early Childhood Caries (ECC) treated in a routine dental clinical setting or under general anesthesia and to compare the dispersions, durations, and expenditures of the dental procedures applied.

Methods: 81 children (40 girls and 41 boys) aged 55 months (± 11.0 mos.) were included in the study. Cooperative children with ECC were treated in a routine dental clinical setting and the uncooperative children were treated under general anesthesia. The children were grouped as; cooperative-healthy [G-CH(33)], cooperative-medically compromise [G-CM(5)], uncooperative-healthy[G-UCH(34)], uncooperative-medically compromise [G-UCM(9)]. dmf-t scores of the children in each group were recorded. The data of dental records were obtained from modified classification for type of dental procedures carried out in primary (T1 to T6) and the classification for frequency and number of application (L1 to L4) for both routine dental clinic setting and general anesthesia. Time expenditures and costs were determined for both groups. Data were statistically analyzed.

Results: No significant difference was found in both study groups (p>0.05). There was significant difference among the groups for both dmf-t scores and number of dental treatments applied in (T1, T3, T4 and T5) G-C and G-UC (*p<0.05*). The mean of the number of dental procedure for G-C and G-UC were approximately 9 and 13, respectively. A significant difference was found between the groups for time expenditure during dental procedures (*p<0.005*). While 9 minutes were expensed for each procedure in the routine dental clinical setting, 7.4 minutes were expensed

in the general anesthesia. There was a significant cost difference between the groups (*p<0.05*). The average treatment costs for a patient under general anesthesia and in a routine dental clinic setting were € 224.4 and € 92.1, respectively.
Conclusion: Although the dental treatments under general anesthesia save time, they are not economical. However general anesthesia procedure is the most effective method for the treatment of the uncooperative children.

41. CHRONIC PERIAPICAL LESIONS BASED ON RADIOGRAPHY VS HISTOPATHOLOGY

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Introduction-The radiography is not the perfect diagnostic method, as it is two dimensional reflexion of three-dimensional structures and clinic and biologic features might be not reflected with radiographic changes. So for exact diagnosis of periapical lesions is required HP examination.
Aim: of the study-was to investigate the accurasy of PLs diagnosis based on conventional RTG used in routine. It was achieved evaluating: 1) the types of PLs based on RTG and HP analysis, 2) agreement between RTG and HP **Results**, 3) the accuracy of RTG diagnosis using HP diagnosis as the standard. **Methods-** One hundred forty five (154) frontal teeth with PLs scheduled for an apicoectomy, underwent the RTG and HP analysis, of them 79 were teeth with PPLs treated surgicaly for first time and 75 teeth with RPLs were surgicaly retreated.
Results-of RTG analysis showed a significant difference*(P*<0.0001) in the pathology types between RPLs and PPLs. Thus at RPLs dominated granulomas at 48%, while at PPLs dominated radicular cysts at 40.5%. Also HP analysis **Results** showed a significant difference (*P*<0.01) in the pathology type between RPLs and PPLs and inside these groups. So at RPLs dominated granulomas at 70.7% against cysts at 17.3%, while at PPLs dominated granulomas at 64.6% against cysts at 34.2 %.The evaluation of RTG and HP diagnosis agreement showed the significant difference *P*<0.01 at RPL and *P*<0.00001 at PPL group. It means that **Results** of these two diagnostic **Methods:** often disagree.
Conclusion:- conventional RTG is not considered as reliable diagnostic method for differentiating radicular cysts from granulomas because, diagnosis based on RTG often disagree with HP diagnosis. So surgical biopsy and histopathologycal evaluation must be considered the standard procedure for differentiating the types of PLs.

42. MUCOEPIDERMOID CARCINOMA IN A MINOR SALIVARY GLAND IN A CHILD

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Introduction: Mucoepidermoid carcinoma (MEC), one of the most common salivary gland malignancies, is rare in children.
Case Summary: An MEC occurs most commonly in the parotid gland, with the minor glands being the second most common site, particularly the palate. The clinical, histological, and radiological picture of a case of palatal mucoepidermoid carcinoma in a 14-year-old girl is presented with one-year control.
Conclusion: Pathologic lesions must be considered in differential diagnoses of intraoral asymptomatic lesions and their detailed inspection should be considered.

43. DENTAL TREATMENTS OF A CHILD WITH KERATITIS, ICHTHYOSIS AND DEAFNESS SYNDROME UNDER THE GENERAL ANESTESIA

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Introduction: KID syndrome is a rare genodermatosis characterized by keratitis, ichthyosis, and sensorineural deafness. Although the dermatological, ophthalmologic, and sensorineural defects are emphasized in the literature, oral and dental evaluations are so superficial.
Case Summary: In this case report, dental and oral symptoms of a three year and five months old boy with KID syndrome, suffering severe Early Childhood Caries (s-ECC) and dental treatments done under General Anesthesia (GA) were reported. The restorations were evaluated in terms of color, aesthetics, phonetics, and parent's general satisfaction. Their scores for evaluation criteria at each six-month follow-up visit ranged from good to excellent.
Conclusion: Dental evaluations of children with KID syndrome, and also those patients' and their families' oral hygiene trainings are important for the prevention of dental problems.

44. ENDODONTIC AND SURGICAL TREATMENT OF A SYMPTOMATIC MAXILLARY ANTERIOR RADICULAR CYST (POSTER PRESENTATİON)

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Introduction Radicular cysts are the most common inflammatory jaw cysts and develop as a consequence to pulpal necrosis following caries or secondary caries resulted in pulpal necrosis by microleakage through the light-cured composit fillings,with an associated periapical inflammatory response.The periapical cysts are originated from the epithelium in a granuloma and frequently associated to an inflammatory response of the organism against a long-term local aggression due to endodontic infection.This condiditon is clinically asymptomatic but can result in a slow-growth formation in the affected region and the patient may suffer pain if the lesion is infected.

Case Summary: A 45 year-old male patient was referred to our clinic with the complaints of moderately pain and swelling on his maxillary left anterior and basal nose region.There was painful swelling between 21 and 22 on the palatal site.On radiographic examination,there was a large periapical radiolucency in relation to 21 and 22 and vitality testing by heat and electric pulp testing revealed no response in these teeth. Affected teeth were slightly tender to percussion and showed some grade mobility.The implicated teeth were performed root canal therapy thereafter and much of the cyst fluid was evacuated through the open canals of the teeth. There was gradually decreasing evacuation of pus formation in each session of canal therapies along 1 month period of time. The root canal treatment was completed right after cessation of the pus-leakage and the periapical surgical operation was performed at the same time.

Conclusion: Radiographic evidence of cystic lesion healing was observed at the 3 month follow-up and there was no pain and normal soft tissue contours around the implicated teeth.

45. HOW WELL-INFORMED PARENTS ARE ABOUT USE OF FLUORIDE TABLETS

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It is well-known that the continuous use of optimal concentration of fluoride significantly reduces caries. Today the use of fluoridated drinking water in caries prevention is not a dilemma. Unfortunately, the concentration of fluoride in drinking water in Montenegro is generally small (<0.001 ppM). Therefore it is necessary that fluoride tablets are given to children from the age of two (Guidelines on the use of fluoride of the European Academy for Pediatric Dentistry – EAPD, 2008).

The Aim of this study is to gain insight into the level of knowledge of parents about the importance of fluoride tablets in caries prophylaxis.

Methods: The study was conducted using multiple choice survey. The respondents were 317 parents of both sexes with different background.

Results: Parents said that their children usually did not use fluoride tablets (52.14%) or that they did that occasionally (23.20%). A number of parents (37.11%) think that fluoride tablets should be taken up to the age of twelve while 45.31% of parents do not know up to what age the children should take these tablets. Most of the parents (63.62%) thought that the daily use of fluoride tablets improved the quality of teeth while 56.31% of them thought that pregnant women should use fluoride tablets to protect their teeth and the teeth of their future children from caries.

Conclusion: The majority of parents are informed about the importance of fluoride tablets for dental health of their children but they are not used daily or if they are it is occasionally. Nowadays counseling services for pregnant women in local medical centers have an important role because a dentist is also involved. Also the cooperation between parents and dentists is important and mass media should play a significant role.

46. EFFECTS OF CPP-ACP AND CPP-ACFP ON DENTAL PLAQUE AND SALIVA IN PATIENTS WITH SALIVARY GLAND HYPOFUNCTION

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Aim: The purpose of this study was to assess the influence of casein phosphopeptide-amorphous calcium phosphate (CPP-ACP) and casein phosphopeptide-amorphous calcium fluoride phosphate (CPP-ACFP) on quality of saliva and dental plaque and mineral composition of saliva among individuals with salivary gland hypofunction.

Methods: The study comprised 30 patients aged 15-54 years randomised into three groups (n=10): CPP-ACP, CPP-ACFP, and 0.05% NaF, to be used two times a day according to the manufacturers' instructions. The included patients suffered from medical condition associated with xerostomia, had symptoms of dry mouth for longer than 6 months, and the stimulated salivary flow rate lower than 0.7 ml/min. Dental plaque and saliva were collected at the baseline and at the end of 28-day experimental period. Parameters that were analysed were pH and buffering capacity of saliva, pH of dental plaque, and salivary Na^+, K^+, Cl^-, Mg^{2+}, HCO_3^-, phosphate, Ca^{2+} and F^-.

Results: At the end of the experimental period, a slight

increase of pH of both unstimulated and stimulated saliva after treatment with CPP-ACP, CPP-ACFP and 0.05% NaF could have been observed (p>0.05). Calcium phosphates significantly increased the pH of dental plaque (p<0.05). No differences in mineral composition of saliva were noted (p>0.05).

Conclusions: CPP-ACP and CPP-ACFP showed significant effects on dental plaque and hold promise as caries preventive agents for patients with salivary gland hypofunction.

47. ANTIBIOTICS AS AN INTRACANAL MEDICAMENT IN ENDODONTICS

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One of the primary aims of the root canal treatment is the disinfection of the root canal system. Elimination of micro-organisms from infected root canal system is a complicated task. Even though chemomechanical preparation has been shown to be effective in reducing the intracanal microorganisms, viable microorganisms are often isolated post-operatively. Such residual flora frequently multiplies if inter-appointment medicament is not applied and the use of antibiotics has been suggested for this purpose.

Antibiotics play an important role in many cases of endodontic treatment. Except for their systemic administration, which relies on the circulation to bring the active drug to an infected site, antibiotics can also be applied locally as an intracanal medicament. The most widespread medicaments containing antibiotics are Ledermix, Septomixine Forte and Pulpomixine. Ledermix is a combination of a corticosteroid (triamcinolone) and a broad-spectrum antibiotic (demeclocycline). Septomixine Forte contains Neomycin, Polymixin B sulphate and tyrothricin and Pulpomixine contains framycetin sulfate and polymyxin B. Moreover, the Triple Antibiotic Paste which is used for immature pulpless teeth with chronic apical periodontitis consists of metronidazole, ciprofloxacin and minocycline. Many studies have been conducted regarding the use of these medicaments. Most of them refer to Ledermix and their

Results are controversial. The parameters that have been analyzed about antibiotic medicaments in the literature are: a)their effectiveness to kill bacteria in the root canal system and thus enhance the repair of periapical lesions, b) their overall toxicity and c) the possible discoloration of the teeth.

The purpose of this presentation is the review of the current data about the local use of antibiotics in root canal treatment and the analysis of their indications, effectiveness and disadvantages.

48.RESTORATIONS OF ENDODONTICALLY TREATED TEETH USING A NEW POLYFIBER POST SYSTEM

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Restoration of compromised endodontically treated teeth remains a challenge for dentists. The demand for more esthetically appealing restorations has led to the development of tooth colored post systems mainly used in the esthetic zone. It has been suggested that posts should have a similar modulus of elasticity to the surrounding dentin structure in order to improve the clinical outcome of final restoration. Thus, fiber posts cemented with resin cements became very popular lately. Recently a new post system constructed of surgical stainless steel wires that are twisted around polyfiber strands was developed. Due to system's design, the post adapts to canal curvatures and requires minimal post space preparation without the need of straight-line access. Excessive post space preparation in order to achieve straight-line access leads to wall thickness, thus increasing the probability of fractures.

The Aim of this study was to present available data about the retention, resistance and ex-vivo behavior of the post system and to describe in details the clinical guidelines and steps for the placement of the new post system. Additionally, cases of non vital teeth restored using this system will be presented. Pre and post-operative x-rays and photos are presented for each case. The technique seems a promising and conservative alternative for the restoration of endodontically treated teeth after careful case selection. Long term clinical observation of the polyfiber system is needed.

49. CONSIDERATIONS OF SURGICAL TREATMENT OF PERIAPICAL INFECTION (APICECTOMI)

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Apical resection or apicectomia, as a successful method in the treatment of periapical pathologies (radicular cyst, periapical granuloma and failed endodontic treatments).

A series of 97 patients with periapical infection diagnosed by taking medical and dental history as well as with the use of periapical and panoramic x-rays, underwent surgery.

Patients were classified in two groups, thanks to the technique used for surgical intervention.

a) patients where endodontic treatment was performed first, followed by surgery;

b patients in whom endodontic treatment was done in the same session as surgery.

After surgical intervention, patients were followed by X-ray to control the success of surgery.

The results of apical resection were positive, only one case resulted in relapse, but the cause of this relapse was the marginal microinfiltration of periodontal ligament.

50. DETERMINING THE OPTIMAL CONCENTRATION OF FLUORIDE IN DRINKING WATER

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Aim: Of this study was to determine the optimal concentration of fluoride in drinking water in F.Y.R.O.M

Method: The optimal level of fluoride in drinking water is universally calculated by applying the equation of Galagan and Vermillion, which permits the calculation of water intake as a function of temperature. The three main climatic zones in the country: temperate Mediterranean, mountainous and mildly Continental. The majority of F.Y.R.O.M has a moderate continental clime.

Results: The annual mean maximum temperatures (AMMT) recorded during the last 5 years were collected from the meteorological centres of the 11 divisional headquarter stations {Berovo (15,44), Demir Kapija (19,31), Gevgelija (20,6), Strumica(19,02), Stip (18,34), Bitola(16,96), Kriva Palanka(16,06), Lazaropole (12,42), Ohrid (16,71), Prilep (16,71) and Skopje (18,32)}. The average AMMT of F.Y.R.O.M is 17,27 degrees C at which the optimal fluoride in drinking water of F.Y.R.O.M was calculated to be between 0.7 -1.2 ppm.

Conclusion: Determining the most appropriate concentrations of fluoride in drinking water is crucial for communities. It is imperative that each country calculates its own optimal level of fluoride in drinking water based on the dose-response relationship of fluoride in drinking water with the levels of caries and fluorosis. Climatic conditions, dietary habits of the population and other possible fluoride exposures need to be considered in formulating these recommendations.

51. EVALUATION OF CALCIUM HYDROXIDE ROOT CANAL DRESSING. CASE REPORT

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Introduction: Considering the complex anatomy of root canals and elimination of bacteria is necessary for healing, the use of a root canal dressing has been recommended in teeth with chronic periapical lesions to reach areas not accessible by instrumentation. Calcium hydroxide has been recommended because of its antibacterial and biological properties,that it has.

Aim: The objective of this study was to evaluate periapical and apical repair using calcium hydroxide root canal dressings in teeth with induced chronic periapical lesions.

Method:After mechanical preparation of the root canals using the crown-down technique, and 5.25% NaOCl as irrigating solution. A calcium hydroxide root canal dressing was applied for 10 days. Radiography was done before, during and after treatment. The evaluation was based on clinical examination and radiographic assessment.

Results: There was a great ingrowth of connective tissue with chronic inflamatory cells into the root canal.The reabsorption and deposition of cementum and bone tissue was also observed.

Conclusion: Calcium hydroxide has shown clinical efficiency in reducing exudate due to its hygroscopic properties and in stimulating apical and periapical repair, with no discomfort.

52. THE USE OF RESIN-BASED PASTE IN ENDODONTIC RE-TREATMENT: PRELIMINARY RESULTS

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The Aim of this study is to evaluate the efficiency of resin-based paste in endodontic treatment of tooth with preapical lesions as a result of incorrect primary treatment.

Introduction: Endodontic treatment is not always successful and consequently periapical inflammatory lesions may persist or develop after endodontic treatment. Such "failures" are most often caused by microorganisms that have either survived the conventional treatment procedures or invaded the root canal system at later stages via coronal leakage. In order to combat the infection, the root canal has to be renegotiated.

Methods: The cases in this study were presented in our clinic and diagnosed with periapical pathology after primary endodontic treatment. Diagnosis is made through x-ray examination. The pathology re-treatment is done by following strictly the protocol of endodontic re-treatments and using step-back or step-down technique. For the root canal filling was used the lateral condensation method with guttapercha cones and resin-based paste.

Results There are a total of 30 cases treated with periapical pathology of which 10 cases have been successful a year after control, 15 cases were treated during 2 months and have resulted successful referring only to extinction of signs and this presents a better prognosis for the future, 5 cases resulted not successful and underwent teeth extraction.

Conclusions: Nowdays patients increasingly expect to retain their natural dentition and are often reluctant to have teeth extracted.

Endodontic re-treatment is a procedure which gives the patient a second chance to preserve the natural tooth.A key factor in the success of endodontic re-treatment is the good selection of the case and doctor's ability

53. CLINICAL EVALUATION OF FIXED PROSTHETIC APPLIANCES USED AT LOST OF ANTERIOR TEETH OF CHILDREN

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The Aim of this study was to evaluate the clinical performance and patient satisfaction of a fixed prosthetic appliance used at loss of permanent and primary anterior teeth.

Methods: This study was conducted on 52 children (30 male and 22 female), who had lost their permanent or primary anterior teeth due to various reasons such as congenitally missed (4); trauma (28); dental infection (20). 52 fixed prosthetic appliances were applied to 52 children. The appliances were renewed for six-month intervals. Survival, retention, gingival mucosa reactions of the appliances and adaptation of children's to appliances were evaluated. In addition, patient-parent satisfaction levels were evaluated. Data were analyzed statistically.

Results: The most common failure in the evaluation of the appliances occurred at the joint of the orthodontic wire and band. There was significant difference among appliances placed to primary and permanent teeth (*P<0.05*). However, the loss of the appliance due to cementation failure was of no statistically significant difference (*P>0.05*). Two of 52 children did not accept the appliance. Patient and parent satisfaction levels ranged from "satisfied" to "very satisfied". No muco-gingival problem was noted, except for plaque accumulation.

Conclusion: Either in the loss of anterior teeth due to trauma and dental infection or in case congenitally missing of the anterior primary or permanent teeth, fixed prosthetic appliances are good choices for treating the lack of anterior teeth.

54. SERUM CHANGES OF MDA IN FLUORIDE INTOXICATED RATS

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Introduction: Chronic fluoride intoxication or fluorosis, is a worldwide health problem and is endemic in areas where the fluoride content of drinking waters is high. Increased production of reactive oxygen species and peroxidation of membrane lipids (production of malondialdehyde; MDA), has been considered to play an important role in the pathogenesis of chronic fluoride toxicity.

Aim: The Aim of this study was to investigate the changes in serum MDA levels in fluorotic rats.

Methods: 54 healthy 8-week-old Wistar rats, were participated in this study. The rats were randomly divided into 8 experimental and one control group (6 animals, respectively). The animals in the control group were given distilled water to drink. The other 8 groups were given drinking water containing 10, 50, 100 and 150 ppm of sodium fluoride *ad libitum*, respectively. After 5th and 10th weeks, the rats were sacrificed by decapitation. For the serum assays, blood was collected immediately after sacrifice. MDA in serum was quantified by spectrophotometric method. Data are expressed as means ± SEM. The significance of the difference between means was determined by analysis of variance (ANOVA). A value of $p<0.05$ was considered significant.

Results: Statistically significant higher differences in the content of MDA in serum of rats during the 5th week was obtained between the experimental groups of animals treated with 50 ppm ($p=0.018$) and 100 ppm ($p=0.004$) of fluoride through drinking water compared to the control and between the experimental groups of 10th week animals, treated with 100 ppm and 150 ppm fluoride in drinking water ($p=0.03$) in comparison to the control group.

Conclusion: Determinations of MDA levels provide a good measure of peroxidation, which is among the chief mechanisms of cell damage leading to necrosis or apoptosis.

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55. THE EVALUATION OF SEALING ABILITY OF CLASS V COMPOSITE RESTORATION BY DIFFERENT DYE SOLUTIONS

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The Aim of this study was to analyze the effect of different dye solutions on the evaluation of the marginal sealing ability of class V composite restorations.
Methods: For this purpose 30 V shape class V cavities prepared in 30 mandibular anterior teeth and all of the cavities were restored with self-etch adhesive system and nano-hybrid composite resin. All samples subjected to thermal cycling procedure for 500 cycles between 5 °C and 55 °C.. After that teeth were randomly divided into three groups and group 1 was immersed in 0,05% methylene blue, group 2 was immersed in 0,05% basic fuchsine and the group 3 was immersed in 0,05% crystal violet dye solutions for 24 hours and sectioned longitudinally. Dye penetration at the gingival margin was classified on a scale of 0 (no leakage) to 3 (leakage at the tip of V shape cavity) with a stereo microscope at 30x magnification. Data were analyzed using Two-Way ANOVA and **Results** with *p<0.05* were considered statistically significant.
Results:No significant difference in dye penetration was observed between group 2 and group 3 (*p>0.05*). But significant differences (*p<0.05)* were observed between group 1 and other two groups.
Conclusion: There is no standard methodology for dental microleakage studies and researchers are using different dyes and concentrations. Finding of this study indicate that; different dyes even with the same concentrations may cause different results.

56. THE EFFECT OF THERMOCYCLING ON MICROLEAKAGE OF RESIN COMPOSITE RESTORATIONS

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The Aim of this study was to determine the effect of thermocycling on microleakage in posterior class II composite resin restorations.
Methods: Twenty, extracted sound human third molar teeth were used for this study. Forty mesial and distal box cavities were prepared and teeth were randomly divided into two groups. The first group (TE) was restored with total-etch adhesive system and composite resin. The second group (SE) was restored with self etch adhesive system and composite resin. Following the restorations, each groups were divided into two sub-groups for thermal cycling (SE1 & TE1) and un-cycling (SE2 & TE2). SE1 & TE1 subgroups subjected to thermal cycling procedure for 500 cycles between 5 °C and 55 °C. After the cycling procedure, all groups were stained with 0.5% basic fuchsine solution for 24 h and sectioned longitudinally. Dye penetration at the gingival margin was classified on a scale of 0 (no leakage) to 3 (leakage of the pulpal floor) with a stereo microscope at 30x magnification. Data were analyzed using Two-Way ANOVA and results with *p<0.05* were considered statistically significant.
Results: No significant difference in microleakage related dye penetration was observed between self-etch adhesive system and total-etch adhesive system (*p>0.05*). But significant differences (*p<0.05)* were observed on thermal cycling and un-cycling sub-groups.
Conclusion: Results of the study indicate that; the thermocycling procedure may increase microleakage regardless of the adhesive system type.

57. THE INCIDANCE OF SUCCESS RATES FOLLOWING ENDODONTIC THERAPY PERFORMED BY A SPECIALIST

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Aim: The purpose of this study was to evaluate the treatment outcome of initial endodontic treatment performed by an endodontic specialist.

Methods: The study involved 463 teeth in 344 patients. All of cases were performed a single endodontic specialist. After administering anesthesia the tooth was opened with a high speed bur and then conventional straight line access preparation was obtained. A modified step-down instrumentation technique was used as the standardized technique in which the coronal two thirds of the canal were enlarge with #1 and #2 Gates-Glidden burs. The working length was established at 1mm from the radiographic apex. The apical third was then prepared by using nickel-titanium files with step-back increments of 0.5mm until a final file size #35 or larger could be placed at the working length. After the use of each instrument, the canal was copiously irrigated with 2.5% sodium hypochlorite solution. After final preparation, the canal was irrigated with 15% EDTA solution and dried. Obturation was then completed with vertically condensed gutta-percha and AH Plus pulp canal sealer.

Results: The patients were recall 18 months after the completion of their root canal therapy. When evaluating treatment **Results** used the following criteria of the European Society of Endodontology.The **Results** were

analyzed statistically by Fisher's Exact test and multivariate logistic regration.

Conclusions:

1. The overall success rate was found to be 88.98%
2. Mandibular first molars had a significantly lower success rate than the other teeth, 84.61%.
3. Improper restoration was associated with a significantly lower success rate than when a proper restoration.
4. Presence of apical periodontitis was associated with a significantly lower success rate then when no apical periodontitis.

58. AN ESTHETIC RESTORATIVE APPROACH TO LONGTERM ANTIDEPRESSANT USE ASSOCIATED ATYPICAL DENTAL CARIES: A CASE STUDY

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Introduction: Decrease in the saliva secretion has a variety of possible causes. Common habits such as smoking, alcohol use and use of beverages containing caffeine can cause some oral dryness. A wide range of drugs can be xerogenic like antidepressants. Reducing in the saliva secretion may provoke to atypical caries. This case report represents periodontal and restorative treatment procedures for a heavy smoker and antidepressant user patient with atypical dental caries.

Case summary: A 29 year old female patient reported to the Ankara University Restorative Dentistry Clinics with a chief complaint of pain in anterior teeth and discolorisation. On examination, atypic dentin caries were found in her vestibule side of maxillary anterior region involving the first premolars on the maxillary left and rigth sides.Systemic anamnesis revealed that the patient has been using 40mg/day antidepressants containing citalopram HBr for 5 years. In addition to that the patient is heavy smoker for the last ten years with a minimum of 30 cigarettes per day. The patient also exhibits poor oral hygiene. Before any treatment the patient had been motivated and trained for oral hygiene. At the onset of the treatment, thorough scaling and polishing was done. For second phase of the treatment caries were removed and temporary composite restorations were prepared before the gingivectomy and gingivoplasty procedures. For last phase of the treatment direct composite veneer restorations performed with polychromatic composite layering technique.

Conlcusion: Xerostomia is one of the side effects of citalopram HBr containing antidepressants. Heavy smoking may also cause saliva secretion decreases. Decreased saliva secretion together with poor oral hygiene may provoke atypical caries. Periodontal and aesthetic restorative treatments were completed in a short term and the patient's oral hygiene motivation was improved significantly. Patient's oral hygiene and restoration's clinic condition were in good condition after third month control examination.

59. MIDLINE DIASTEMA CLOSURE WITH DIRECT-BONDING RESTORATIONS

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Introduction: A healthy and attractive smile is very valued in today's society. The presence of diastemas in the anterior aesthetic zone can be displeasing to a person's smile and many patients are motivated to improve their appearance either with orthodontic treatment or restoratively with veneers, and/or composite resin bonding.

Using direct composite resin bonding to close diastemas is a conservative and a relatively inexpensive method of enhancing esthetic smile and is often carried out in a single visit procedure. Clinicians must be prepared for patients visiting the dental office witht the aim of having their diastema closed in order to fulfill their psychological (aesthetic and beauty enhancement), functional (pronunciation of 'f' and 's' sounds and cutting foods with anterior teeth) and/or health (oral health maintenance) problems.

C**ase summary:** This study represents treatment protocol of polychromatic composite layering diastema closure technique and the case series of three patient's treatment using direct composite resin bonding.

Conclusion: The closure of diastemas in the anterior zone to improve the patient's smile has been presented with direct composite resin bonding. A layered approach that mimics the polychromaticity of teeth allows us to build natural restorations. These restorations are practically invisible and blend harmoniously with the natural dentition.

60. PANORAMA OF THE DENTAL HEALTH STATUS IN GERIATRIC PATIENTS

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Objective: This study aimed to assess the dental and oral health status and treatments needs of the elderly population in Rome in order to quantify the need for care, providing at the same time data for future reference and possible future dental care provision considering that there has not been conducted a similar survey in our city.
Methods: 316 non institutionalized patients (177 women and 139 men), 65 years and older, underwent a complete oral and dental examination following the WHO's criteria.
Results: 3% had all of their own teeth, whereas the prevalence of edentulousness was 4.4%. Missing teeth were 3346 (37,81%). Both sexes in the mandible presented a greater number of teeth present (9.02 on average) than the maxilla (8.27 on average). 46.8% demonstrated a satisfactory state of oral hygiene, 41.1% a medium degree and 12.0% a poor oral hygiene. Malesshowedalowerindexoforal hygiene. DMFT index was 14.65 with 7,73% decayed teeth, 81,57% missing teeth and 10,69%. filled teeth. Regarding CPI; 14,5% of the sextants resulted healthy, 4.9% had gingival bleeding on probing, 20.7% had dental calculus, 17.0% periodontal pockets 4-5mm deep, 1.4% periodontal pockets 6 or more mm deep and 41.5% of the sextants were excluded. Our findings have shown a gradual decrease of bone level with increasing of age: 0,043 mm per year ($p<0.05$).
Conclusions: Our patients demonstrated anacceptable-number of remnant teeth (17,41), a low value of edentulism (4,4%) and missed teeth (37,81%) compared to italian and european average.The status of oral health was significantly better in women than in men in the first age group 65-69, increase in age results in a worsening of all indices both men and women without any statistical significant difference between the two genders.

61. EVALUATION OF THE BOND STRENGTH VALUES OBTAINED DURING THE CEMENTATION OF THE GLASS FIBER POSTS, WITH THE CHANGE OF THE VARIATION IN THE ETCHING-TIME

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Introduction: The main purpose of a post-endodontic restoration with the posts is to guarantee the retention of the restorative material.
Aim: The objective of this experimental study is to examine, through the push-out test, how the bond strength between the post and the dentin varies with the change in the etching time with orthophosphoric acid 37%, before cementing the glass fiber post.
Materials and Methods: Forty dental monoradicular elements, with no decay and extracted for periodontal reasons, kept in balanced salt solution were treated endodontically with simultaneous technique using instruments in NiTi "Mtwo" (Sweden & Martina), following the producer instructions. Root canal filling was carried out with the lateral condensation technique with ISO standardized gutta-percha points and cement containing epoxy resin Top Seal (Dentsply, Maillefer).Then the experimental protocol established the preparation of the post space, realized with Largo 1 and 2 burs at a length of 10 mm for each sample.
The push-out load was applied using a universal testing machine Galdabini- Sun 500 at a crosshead speed of 0.5 mm/min in order to obtain the extrusion of the post. Push-out strength data was by Newton.
In order to obtain the bonded surface area of each sample, we took some pictures of the apical surface using an*Optical Microscope* (Zeiss laser scan).
Results: The highest adhesion values were found by etching the substrate for 30 sec., over-etching didn't improve the bond strength to the endodontic substrate.
Conclusions: The results cannot support the hypothesis of the over-etching time as an effective technique to improve the adhesion to the endodontic substrate or, at least, not considering the times of application of the acid for 2 minutes.

62. EVALUATION OF ER: YAG LASER DISINFECTIONIN ENDODONTICS

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POSTER PRESENTATIONS

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Introduction: Endodontic applications of laser technology by clinicians has remained limited partly because of the high cost of use and perhaps partly due to the fact that this technologyblurs the border between technical, biological, and dental research.
Aim of the study: To evaluate from a clinical point of view whether a laser can provide equalor improved endodontic treatment over conventional care.
Methods: 150 adult patients who presented a mandibular molar to be treated endodontically, where separated in 3 groups, each group was composed of 50 patients (30 teeth presenting apical periodontitis,20 apical periodontitis with previous root canal treatment). Endodontic single visit treatments were performed by the same operator. Obturation of the root canal system of all teeth was carried out by the use of carrier based obturators Real Seal (Sybron Endo, CA, USA) and a sealer cement Tech BIOSEALER ENDO (Isasansrl, RovelloPorro, IT).
Group I: after cleaning and shaping each tooth's root canal system was obturated without further disinfection.
Group II: after cleaning and shaping, each tooth's root canal system was further disinfected by using the FotoSan system (CMS Dental ApS, Copenhagen, DK) and then obturated.
Group III: after cleaning and shaping, each tooth's root canal system was further disinfected by the use of an Er:YAG laser device(KaVo Dental GmbH, D) and then obturated.
Follow-ups were carried out 3 and 6 months after every treatment. **Results** were analysed using the software Statistical Package for Social Sciences (SPSS Inc, ver. 13.0, Chicago, IL, USA), chi-squared test was used for statistical evaluation of proportions.Treatment success was assessed by the healing of periapical tissues, verified by the radiologic and clinical examination-no response to percussion.
Results: After analyzing the data statistically significant differences occurred regarding success of the endodontic treatment between the first group and the other two groups.
Conclusion: Our study confirms the effectiveness of Er:YAG laser and photo-activated therapyin endodontics, laser irradiation or application of the light activated disinfection can determine the success of an endodontic treatment.

63. POST ENDODONTIC CORONAL STRATEGIES

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Background and Purpose: Analyse and evaluate the various strategies regarding post-endodontic restorative treatment.
Methodology: 280 adult patients who presented a

mandibular molar to be treated endodontically where divided in 4 groups. All endodontic treatments were performed by the same operator and were completed in a single visit. After radiographic evaluation of the root canal system obturation a different post-endodotic restorative treatment was performed to each group.
Group I**:** Immediate application of prefabricated glass fiber post and coronal composite adhesive restoration.
Group II: Immediate coronal composite adhesive restoration.
Group III: Application of an adhesive system and a temporary filling. Coronal composite adhesive restoration performed in a second visit a week after the root canal system obturation.
Group IV: Application of a temporary fiilling. Coronal composite adhesive restoration performed in a second visit a week after the root canal system obturation. The Statistical Package for the Social Sciences (SPSS Inc., Chicago, Ill.) was used to analyze the data.
Results: Statistically significant differences regarding the success rate of teeth occurred between the first three groups and the fourth one.
Conclusions: A non immediate post endodontic access cavity sealing can compromise the success of a good root canal obturation.

64. ORAL HEALTH STATUS AND TOOTH WEARAMONG PSYCHIATRICPATIENTS

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Aim: Assess oral health,treatment needs and the correlation between tooth wear and medication sin patients with psychiatric disease.
Methodology: 92 patients(40male and 52 female) admitted in the Department of Neurology and Psychiatry of the Umberto I Hospital of Rome underwent an oral and dentalclinical examinationin accordance with the World Health Organization Basic Methods Criteria.One dentist performed all clinical examinations, training and calibration was carried out by an experienced clinical examiner. To measure the degree of inter-examiner agreement Kappa statistics was calculated. Level of tooth wear was assesed using the tooth wear classification of Johansson et al.Exact psychiatric pathogy and medications of each patient were registrated.The Statistical Package for the Social Sciences (SPSS Inc., Chicago, Ill.) was used to analyze the data. A value of $P < 0.05$ was considered statistically significant.
Results:34,78% of the sample regarding tooth wear demonstrated score 2. Men demonstrated 30% score 2 and 20% score 3 and 4 whereas female patients 38.46% score 2, 7.69% score 3 and none score 4. Regarding drug therapies 46.15% of the female patients received Depakin Chon against 20% of the male patients.
Conclusions: Chronic exposure to neuroleptic drugs can cause phenomena of bruxism. There isa definitecorrelationbetweentoothwear, psychiatric disordersandadministration of certain drugs.Poor oral hygiene and extensive unmet needs for dental treatment were widespread among psychiatric patients.

65. CLINICAL EVALUATION OF INNOVATIVE RESIN-BASED RESILON CARRIER-BASED OBTURATORS

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Background and Purpose: To evaluate if there is a difference in clinical outcome between conventional carrier-based systems which rely on guttapercha as the filling material and an innovative carrier-based system which uses resin-based Resilon filling material. **Methodology:** 200 adult patients who presented a mandibular molar to be treated endodontically, where separated in 4 groups, each group was composed of 50 patients (50 teeth with periapical lesion of whom 25 presented evidence of previous root canal treatments). All endodontic treatments were performed by the same operator and were completed in a single visit. In each case the operative field was isolated with rubber dam and an endodontic access cavity was prepared using a diamond truncated cone bur and an endo zeta tungsten non-end cutting bur mounted on a high-speed handpiece under abundant irrigation. Stainless steel hand files were used to survey the root canal system. Working length was determined by the joint use of both an electronic apex locator (PROPEX II-DENTSPLY MAILLEFER,Ballaigues,CH) and an intraoral intraoperative radiograph. Cleaning and shaping of the root canal system of each molar was performed using the simultaneous technique with Mtwo NI-TI rotary files (Sweden & Martina SPA,Padova,IT) and Mtwo Apical NI-TI rotary files (Sweden & Martina SPA,Padova,IT) for the preparation of the apical area. After each instrument the root canal system was irrigated alternating 5% sodium hypochorite (NaOCl) and 2.5% EDTA. In cases of retreatment, Mtwo R 25/05 file (Sweden & Martina SPA,Padova,IT) was used in order to remove filling materials.Obturation of the root canal system of each group was carried out by a different carrier-based obturation system:
Group I: Thermafil (DENTSPLY MAILLEFER, Ballaigues, CH)
Group II: Dominosystem (Sweden & Martina SPA, Padova, IT)
Group III: Soft-core (CMS Dental ApS, Copenhagen, DK)
Group IV: Real Seal 1 (Sybron Dental Specialties, Orange, CA, USA)
The Statistical Package for the Social Sciences (SPSS Inc., Chicago, Ill.) was used to analyze the data.
Results: Real Seal 1 demonstrated better results than the other carrier-based systems.
Conclusions: In concordance with international literature our study confirms that Resilon as filling material demonstrated that it can guarantee a better apical seal than guttapercha.

66. EFFECT OF RAPID MAXILLARY EXPANSION IN THE NASAL AIRWAY RESISTANCE

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Aim: The purpose of this study was to evaluate the effect of rapid maxillary expansion in the reduction in nasal airway resistance.
Methods: The study group consisted of 66 children of both sexes ranging in age from 5 to 9 years. The subjects involved in the study presented either deciduous or mixed dentition with different degrees of maxillary constriction. Each subject was treated with a RME appliance cemented in all patients by the same clinician using a glass ionomer cement and submitted to rhinomanometry and orthodontic documentation at two different times, before expansion and 10 days after expansion occured. The Statistical Package for the Social Sciences (SPSS Inc., Chicago, Ill.) was used to analyze the data.
Results: Statistically significant differences regarding reduction in nasal air resistance occured after analysing the values of the rhinologic exam before and after the maxillary expansion.

Conclusions: In concordance with international literature our study confirms the effectiveness of rapid maxillary expansion in improving respiratory problems in pediatric patients.

67. EFFECT OF ER:YAG LASER ETCHING IN THE APPLICATION OF DENTAL SEALANTS

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IntroductionDental sealants are among some of dentistry's most effective tools for preventing tooth decay when applied to pediatric patients' teeth.
Aim: of the study: To study, evaluate and assess the retention rate of sealants applied to the permanent molars using different enamel surface pre-treatment techniques before placing sealants. This clinical study compared chair-side time required and 4 years retention for three different **Methods:** of occlusalsurface pretreatment:

I) traditional acid-etching and rinse technique
II) Erbium**:** yttrium-aluminum-garnet (KEY Laser, KaVoDental GmbH, D) laser irradiation without acid-etching
III) Erbium**:** yttrium-aluminum-garnet (KEY Laser, KaVoDental GmbH, D) laser irradiation with acid-etching (37% orthophosphoric acidAxia Etch,Dentalica, Spa, IT) and rinse technique.

Methods: The sample comprised 75 children. 4 test teeth per subject were included in the study. Following parental consent 300 noncarious fully erupted first permanent molars were sealed by the same clinician using the three surface pretreatment protocols. The dental sealant usedAxia Seal (Dentalica, Spa, IT) is a newly developed light-cured resin filled fissure and pit sealant with fluoride release. Sealant retention was classified as A (fully retained), B (partially lost) or C (completely missing).
Results: Rates of complete retention for occlusal surfaces were not significantly different for the three techniques, although the rate for acid etching combined with laser irradiation was higher than the other two pretreatment techniques.Mean chair time for placement of sealants in the first group was significantly less than in the other two.
Conclusion::Conventional acid etching remains the most effective and simplest technique.

68. CAN A ROOT CANAL SEALER CEMENT DETERMINE ENDODONTIC TREATMENT SUCCESS?

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Objective: The purpose of this study was to evaluate from a clinical point of view the new calcium silicate cements

proposed for endodontic application as root canal sealers associated with gutta-perchaorthogradeobturation techniques.

Methods: This study included 105 adult patients,each one presented a mandibular molar to be treated endodontically.After a clinical diagnostic exam (Test of vitality) and an endoral radiographic examination all teeth resulted necrotic,90presented apical periodontitis,30 where teeth treated endodontically in the past while 15 exhibitted a widened periodontal ligament space but no periradicular radiolucency,these teeth had a very painful response to biting pressure and percussion.The patients where separated in three groups. All endodontic treatments were performed by the same operator and were completed in a single visit. After chemo-mechanical preparation the obturation of the root canal system of all teeth was carried out by using anobturation system in which the gutta-percha is preapplied to a carrier and is heated in a special heater (Domino-Sweden & Martina SPA,Padova,IT).A different sealer cement was used for each group:

- Group I Epiphany(Epiphany; Pentron Clinical Technologies, Wallingford-CT, USA)
- Group II Top Seal (DENTSPLY MAILLEFER, Ballaigues, CH)
- Group III Tech BIOSEALER ENDO (Isasansrl, Rovello Porro,IT)

Treatment success was assessed by the absence of periapical lesion and no response to percussion.

Results:In the first grouproot canal therapy was evaluated as successful in 27 teeth(77.14%) whereas in the second group the success rate reached 80%(28 teeth) and in the third group 94%(33 teeth).The difference between the first two groups and the third one is statistically significant(p=0.03933).

Conclusions: Tech BIOSEALER ENDO (Isasansrl, Rovello Porro, IT) demonstrated that possesses all the advantages of calcium silicate cements such as excellent antibacterial properties being at the same time more fluid and offering a suitable working time.

69. RADIOGRAPHIC EVALUATION OF THE PREVALENCE OF APICAL PERIODONTITIS AND TECHNICAL QUALITY OF ROOT CANAL TREATMENT IN AN ADULT ITALIAN POPULATION

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Background and Purpose.To gain knowledge of distribution and prevalence of apical periodontitis and its determinants including treatment outcome in an adult Italian population.

Methods.A total of 312individuals who presented for the first time in two different branches of a private clinic situated in Rome underwent a full-mouth digital radiographic survey and a clinical examination during the period from 24 September 2007 to 5 March 2008.The periapical index (PAI) was used as a scoring system for radiographic assessment of apical periodontitis.Criteria such as length,density and lateral adaption of root filling for each root were used to determine technical quality of each endodontic treatment.

Results. Of the 8101 teeth examined 113(1,39%) presented apical periodontitis whereas 534(6,59%) presented a root canal filling.0f the root filled teeth, 91(17,04%) presented apical periodontitis significantly associated with poor technical quality of treatment. Prevalence of apical periodontitis between treated teeth was more significant in mandibular molars (27,89%).

Conclusions. Prevalence of apical periodontitis,frequency and distribution of root canal filled teeth and association between poor quality of endodontic treatment and apical periodontitis were comparable to previous European epidemiological studies.

70. CLINICAL CHANGES ON REDUCED OCCLUSAL VERTICAL DIMENSION & TREATMENTS

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Introduction: The normal occlusion is based to the notions of maximal occlusal contact of upper teeth towards

the lower ones, bone structures, muscular connection in close relationship with each other. Even to day there exists a polemic on which of the above mentioned norm "criteria" to use.

Aim:

a. To evident the changes on reduced occlusal vertical dimension
b. To treat ROVD by ensuring a regular occlusion with a normal OVD
c. To normalize the mastication, aesthetic, phonetic function, as well as the function of TMJ.
d. To follow the Results of orthopaedic treatment of ROVD

Methods: *T*he study was conducted on 174 patients and lasted for 5 years, aged between 30-60 years old; 68.9% were males and 31.1% females, 89% had no dysfunctional symptoms, 11% had dysfunctional symptoms. 79.5% had secondary ROVD, 19.5% natural ROVD.
The changes evident in relation between parts of face, overbite of incisors, status of soft tissues, lack of teeth.
The OVD was raised 3-6mm by immediately increasing it within the limit of the rest vertical dimension (RVD). At first the actual OVD of the patient was measured and then the OVD was increased by applying removable, fixed (242) and combined prosthesis (43).
Results*:* The secondary ROVD corresponds to the poliethiology of this pathology, the middle age patients was mostly encountered.
The main causes of ROVD are: the extraction of distal teeth and the lack of their replacement on time, jaw anomalies with distal occlusion, pathological abrasion and irregular prosthesis. The treatment of ROVD normalized the occlusion improved the mastication, the aesthetics and phonetics of the patients.
Conclusions*:* ROVD requires a detailed treatment. An indispensable condition is: its increase within the tolerance limits, which is achieved by applying fixed combined and movable prosthesis.

71. THE PATHOLOGY OF TOTAL MISSING OF THE TEETH AND ITS TREATMENT BY CONTEMPORARY METHOD

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The tooth missing already was made a pathology which touched in dentistry. After carries and periodontologie, it was known in great percentage at the population.
According the quantity of the losing teeth performed the substitute by different prosthesis. The total missing of the teeth, was substituted by full prosthesis, which have returned, not only esthetic view, but as well as the functionalities.

Subject: The study pathologies of losing of the teeth and prosthesis procedures by pouring techniques are the main objective of our study.
Method: During January 2010 till November 2011, at the "Aldent University" in Tirana in collaboration with "Ages Home", were taken in interview about 100 persons aged ever 50 years old. Those patients have filled the application forms, performed the clinical examinations and are prosthesis 70 patients. About 35 patients are treated by traditional method and 35 other patients by Vertex method.
Results: 70% of the patients were investigated that they had lost teeth or were the probable candidate to loss after clinical examination. 30% of these patients, had lost, 1(one) or more teeth. The difference between those patients was statically negligible. 50% of those patients were prosthesis by classical method and 50% by contemporary method (Vertex).
Conclusions: The missing of the teeth was happened by more factors which are specified at our presentation. After total prosthetic procedure evaluation, was looked that muflication method by Vertex was very much commode to the patients, avoiding the allergy by monomer resins as rigorous result of polymer / monomer rate, cutting the working time as well as is a rapid and cleaning procedure.

72. MIDLINE FRACTURES INMAXILLARY COMPLETE DENTURES: A SURVEY

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Aim: Despite advances in materials and technology, it can be seen that the midline fracture in acrylic maxillary complete dentures remains a significant problem and the number of patients who had experienced midline fracture in their dentures has not decreased.
The Aim of this study was to analyze and determine the causes of midline fractures in maxillary complete dentures.
Methods: A total of 65 patients in the age group of 39 to 84 years, who had experienced midline fracture in their acrylic maxillary dentures were selected. All the patients included in the study were using acrylic resin complete denture, excluding dentures had previously been repaired for once or more times.
It was investigated that the midline fractures in upper complete dentures related with nine variables including gender of wearers, age of wearers, age of dentures, cause of fracture, thickness of base resin, type of palate, type of antagonist, type of occlusion and denture cleaning material. The data obtained were analyzed by the chi-square test at 5% significance level for determine the statistical dependence between the selected variables.

Results: There were significant differences for variables such as gender of wearers, age of wearers, age of dentures, thickness of base resin, type of palate, type of occlusion and denture cleaning material ($p<0.05$). However, no significant difference was found for type of antagonist and cause of fracture ($p>0.05$).
The gender of wearer and the age of dentures were the most important factors causing midline fracture. It was found that 52.3% of the fractured dentures had been in use more than 3 years and among the 65 patients with fractured denture, 70.8% were men.
Conclusions: Recognition of these factors and more emphasis on compliance to post insertion instructions by patients will result in a maxillary complete denture with increased longevity without denture failure.

73. DETERMINING THE MOST SUITABLE MICROLEAKAGE MEASUREMENT METHOD FOR POST-AND-CORE RESTORATIONS

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Objectives The objective of this study is to choose the most suitable dying material and microscope for the evaluation of microleakage in cast cast metal post and core foundations.

Methods: The coronal microleakage was tested on cast cast metal post-and-core foundations. Eight maxillary anterior human teeth were selected. Specimens were randomly assigned to 2 experimental groups (n=4); cemented cast metal post-and-core group (CMPC), non-cemented cast metal post-and-core group (NMPC). All specimens were placed in a special custom made mechanism. The cemented specimens were luted with Panavia F dual-cure resin cement using this mechanism under 35 N pressures. Three dying materials were used in both groups; Indian ink, eosine and aqueous basic fuchsine. In both groups 1 specimen was left unstained for control. After 48h storage into dyes all specimens were embedded in epoxy resin. A grinding machine was used to obtain sagittal sections passing from the long axes of the posts. Ground specimens were examined under 3 different microscopes; cast metal microscope, coal microscope, binocular microscope and the leakage was scored.
Results Coronal leakage values of cemented and non-cemented groups were compared according to the dye material and microscopes separately. The most suitable dying material was aqueous basic fuchsine and the most suitable observation tool was the binocular microscope.

Discussion In literature there are few studies about the dying materials that will be used in microleakge researches. Generally, researchers choose these materials according to their simple application.

Conclusion: Both metal and zirconium post-core foundations are special materials to evaluate under microscope. To observe all the parts of the specimens, a binocular microscope and basic fuchsine should be used.

74. ADVANTAGES OF FULL ARCH REMOVABLE PROSTHETICS WITH ECLIPSE SYSTEM - CASE REPORT

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Introduction: Eclipse is lighting polymeric system consisting of three layers of resin (Base Plate, Set-Up and Contour Resins), which combined together serve for removable dentures fabrication.

Aim: The purpose of this work is to present all advantages provided by the Eclipse system in fabrication of full arch removable denture, by presenting our case report.
Case Summary: As material we used our patient from the current operation of the Clinic of Dental prosthetics in Skopje, who had an indication for fabrication of full arch removable dentures in the upper and lower jaw. Unlike the need of mandatory use of wax in the conventional method of fabrication, the Eclipse dentures are obtained directly by applying and adjusting the layers of the Eclipse system. The fabrication process in promoted so that there is no need of investing, flasking and replacement of wax with an acrylic mass. After the successful trial in the patient's mouth,we directly processed the dentures and we handed them over to the patient.

Results: After two years wearing dentures by our patient, we found important **Results** about the material itself: functional, aesthetically compatible and non-irritating denture, with no allergic reactions. The material reflects an appearance of the oral mucosa, the color of the denture base is stable and the reaction of the surrounding tissues towards the not stiffened material is benign. The adaptation of the denture base is excellent according to the modified Kapur index, small changes are registered between the trial, the handover of the denture and the eventual visit for corrections.
Conclusion: From the **Results** presented above one can conclude that the Eclipse system has significant advantage in regard to the conventional systems, representing an optimal solution with all the features of a prosthetic aids, although from material point of view it is not available for every patient.

75. IN VITRO ACCURACY OF A NEW DIGITAL INTRAORAL SCANNER

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The Aim of this study is to compare the accuracy of a digital cast of a prepared tooth obtained by direct digitization with the one of a conventional CAD/CAM procedure, which consists of impression taking, master cast production and extraoral digitization.
Methods: This study was executed using 54 teeth that were extracted either because they were parodontally compromised or for orthodontic needs. They were then prepared with a chamfer finish line design. Simulated intraoral acquisition was obtained by digitizing the prepared teeth with an iD3 Progress Cefla scanner (Cefla Dental Group, Italy). Master casts were produced after taking impressions with polyether (Impregum Penta, 3M ESPE). Those master casts where then digitized using the same scanner.
Results: Comparing the two scans with Geomagic Studio 12 (Geomagic, North Carolina, USA), the difference between the two approaches was between 25 µm and 50µm. This difference is within clinically acceptable tolerances reported in international literature.
Conclusions: Within the limitations of this study, it is possible to hypothesise an effective clinical use for this intraoral scanner. Its use could imply a smaller number of steps for the realization of the finished prosthesis, a reduction of errors and inaccuracies and greater comfort for the patient.

76. ESTHETIC SOLUTIONS OF BONE AND SOFT TISSUE DESTRUCTION – CASE REPORT

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Case summary: A 26. years old woman, with diagnosis Shisis palati primaria et secundaria, with a massive defect in the upper jaw, needed a complete prosthetic reconstruction. From her early childhood she had several operations after which remained unaesthetic defects. Beside the defect in the upper jaw in the intercanine region, there was also an other problem: the remaining teeth were not in a good position for a good esthetic prosthodontic work. The patient agreed to place a fixed appliance on both jaws to achieve the best possible position of the remaining teeth. The next step, after the orthodontic treatment was to make a tooth preparation and ensure a temporary composite bridge to hold the teeth in their position while the technician makes the metal ceramic bridge.
Conclusion: The defect in the soft tissue and bone was covered with pink ceramic. The patient was very satisfied with the esthetic of the bridge, but also with adaptation to phonetics, because she could speak much better and more clear.

77. A NEW METHOD OF CONSTRUCTING TOTAL PROSTHESIS THROUGH THE PREPARATION OF BASALT PLAQUES OF REGISTRATION

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By how the base of total prostheses reproduces the individual characteristics of prosthetic field, depends on precision and stability of the next total prostheses.
The purpose is to represent a new method of preparing Total Prostheses, initially preparing the final base of the Prostheses with resin heat polymerized into the flask. With these basalt plaques, the doctor at further stages of determination of central occlusion, aesthetic try in, control of phonetics and aesthetics, will be able to record and control values in an area unchanged in form and function.
Methods: In 32 patients, mainly with third-grade atrophy, we applied a new method to construct the total Prostheses, initially preparing basalt plaques or the definitive base for future prostheses with resin heat polymerized into the flask, and then with these basalt plaques is determined the occlusion, are arranged the teeth and continued preparation of definitive Prostheses, being polymerized only the wax with which is made the teeth set-up on the basalt plaques. When we have observed low stability and mobility of total Prosthesis during try-in, in this stage we have taken an impression for indirect rebasing and we have continued with the final laboratory procedures as usually.
Conclusions: This method creates the opportunity for great precision in the registration of central occlusion, eliminating the possibility of moving or deforming the templates. At the same time creates the possibility of preliminary controlling the stability of the prosthesis in the stage of the jaw relation registering, of aesthetic try-in, and significantly reduces shrinkage, deformation and porosity of Prostheses during polymerization with the traditional method. More positive **Results** we had especially in jaws with high degree of atrophy, where mobility and deformation of templates and occlusal rims during the registering of central occlusion is expressed.

78. DENTISTS ROLE IN DIAGNOSING OSTEOPOROSIS. CLINICAL CASE

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Introduction: Dentist may be the first health professional to suspect osteoporosis.
Most individuals inflicted with osteoporosis are not diagnosed until a fracture occurs.
However, people with low bone density may also have oral health problems, so the dentist may notice the first stages of osteoporosis. There are three types of osteoporosis:

- Type 1 or postmenopausal osteoporosis
- Type 2 or senile osteoporosis occurs in women or men more than 70 years
- Type 3 or secondary osteoporosis occurs equally in men and women and at any age.

Objective of this study is:

1- to show how a dentist may detect the first stages of osteoporosis in patient with general osteoporosis or in patients with postmenopausal osteoporosis
2- according to clinical oral signs to make the patient aware**:**

To visit the orthopedist in a case of general osteoporosis

To visit the gynecologist in a case of postmenopausal osteoporosis

Method: A removable prosthetic appliance for upper jaw was made for our patient SH.B, female aged 41.
6 months later we noticed that her denture no longer fitted correctly. Her lower face had lost height, her nose and chin appeared more proeminent, her upper jaw was undergone to severe atrophy.
Conclusions: Dentists should make their patient aware if they doubt osteoporosis. Osteoporosis treatments will have a favorable impact on oral health too.
In this kind of patients it can be made a right prognosis of different dental works.
It is the physician who will decide whether the patient is a candidate for hormonal replacement, or for other ways to stop bone loss.

79. PRESENTATION OF A SIMPLIFIED SYSTEM FOR THE PREPARATION OF WORKING MODEL IN TOTAL PROSTHESIS PREPARED WITH THE METHOD OF BASALT PLAQUES

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During the preparation of basalt plaques into the flask with resin heat polymerized on the master model, the master model often damaged, broken and may become unusable for further stages of the work.
Purpose: Presentation of a new method for constructing another model, after the formation of basalt plaques. This second model is used for further clinical and laboratory procedures for the preparation of total prostheses.
Methods: In 32 patients with total prosthesis constructed with basalt plaques method, after the formation of basalt plaques, is prepared in a simple and fast way, another model that reproduces the main details of the prosthetic field. This model is prepared by adopting with precision on basalt plates a specific laboratory silicon with hardness 95 MPa. By following, this initial model silicone is incorporated in a plaster base. On this pattern continued clinical and laboratory stages for the preparation of further total prostheses.
Conclusions: The model of silicon facilitates the clinical and laboratory procedures after definitive basalt plaques forming. This second model of work is necessary to be created, especially when the prosthetic field represents retentive areas (under-cats) in different regions and is inevitable the damage and breaking of plaster master model. Doctor belongs to select the method that it considers most appropriate for the construction of dentures in any individual clinical situation.

80. HISTOLOGICAL EVALUATION OF DERIVED BOVINE BONE MINERAL IN CONTACT WITH SOFT TISSUE-ANIMAL STUDY

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Introduction: Jaw remodeling in today's dentistry consists on Bone Augmentation and soft tissue remodeling, known as guided bone and tissue regeneration procedures.
Different surgical protocols and augmentation materials have been introduced in order to gain volume which will satisfy demands of therapist.
Derived bovine bone mineral (DBBM) is material of choice which constrains within all needs for a predictable therapy, meening long term stability of the volume.
The Aim of this study was to evaluate histologically, behavior of DBBM particles in contact with soft tissue.
Methods: A mongrel dog 7 years old has been taken

for a study. After extraction of tooth P4 in mandible, a horizontal defect was created in the same region buccaly, sizes 1,5x2x1 cm. After 3 months of healing, a pouch technique was used for augmentation of DBBM particles, with a striped periosteum in order to allow intimate contact of particles with soft tissue.
Three months later, a dog was sacrificed and a sample resected from the mandible.
After period of fixation with neutral 10% formalin, and decalcification with 5% formic acid, the sample was processed further for the histological analyses and stained with Hematoxiline and eosin.
Results: In the zone of a bone contact, a woven bone could be identified around the particles.
At the soft tissue surrounding, a mild chronic inflammatory infiltrate with few macrophages and little fibrosis were observed. DBBM particles were intimately surrounded by a connective tissue rich in cells and blood vessels.
Conclusion: Histological findings comply with other similar studies, and suggest further long term studies on volume stability of the augmented site.

81. SURGICAL INTERVENTIONS TO FAVOR AN OPTIMAL PROSTHETIC WORK

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The Aim: Not all the patients who are candidates to have a prosthetic work have a favorable crest. Based on this we have performed surgical interventions in a group of patients to achieve the correction of the crest to enable the replacement of the defect with a prosthetic work.
Summary: We have examined a group of patients in "U.F.O Polyclinic" and "ALBANIAN UNIVERSITY University Clinic" who needed a surgical intervention to correct the crest.
1- As a beggining we have taken a diagnostic mass and from that we have obtained the diagnostic model.
2- The preliminary pictures of the patient were taken.
3- The patient medical history were taken (because we are talking about an age group over 50).
4- Patient were given a prophylactic cure with antibiotics 3 days before the surgery.
5- And finally all this is finalized with the surgical intervention carried out in collaboration with surgeon and orthopedic doctor.

After the intervention the patient is held under observation for 3-4 weeks. And after totally recovery the patient is submitted to orthopedic procedures.
Conclusion:: From this study it was observed that patients who underwent surgery for crest correction were anable an optimal, functional and aesthetic prosthesis. After completion of all proceedings the patient is held under observation for any probable decubitus.

82. THE MULTIDISCIPLINARY TREATMENT FOR THE CORRECTION OF ANOMALIES IN THE ADULTS. CASES PRESENTATION.

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Patients, especially adults have it often difficult to submit to the orthodontic treatment to correct the anomalies. This happens often for esthetical reasons but also because the treatment is long and needs many appointments. In these cases the patients prefer treatments that can be more invasive, but which give faster **Results** and in some cases are even cheaper.
Aim: With this presentation cases are treated with a multidisciplinary approach. Prosthodontic, therapeutic and also chirurgical and implantological treatment aid in restoring esthetic and function to the patient.
Methods: The patient anomalies were studied with cephalometries and other **Methods:** and a work-plan was established. The therapeutic treatment includes fillings and necessary devitalizations. The surgical treatment includes extractions and bone remodeling intervents. The periodontological treatment includes the gingival contours adjustments and the improvement of the periodontological status. The implantological treatment includes the substitution of the edentulias. The prosthodontic treatment includes the correction of the defects and tooth missing substitution and the esthetical modifications, especially in the anterior area.
Results: The bite augmentation was achieved also the modification, in some cases the occlusion cover-up. The ATM status was improved. The esthetic and masticatory function was also improved.
Conclusions: The multidisiplinary treatments often improve the patient status in a short period of time. This is positive but requires compromises regarding the otherwise unnecessary therapeutic and prosthodontic treatments. The case must always be analyzed and the patient must be clarified about the pros and cons of his decision.

83. AGENESIS OF MAXILLARY LATERAL INCISOR AND ASSOCIATED DENTAL ANOMALIES

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Aim: The objectives of this study was to evaluate the prevalence of dental anomalies in patients with agenesis of upper lateral incisors and to compare the **Results** with the incidence of these anomalies in the general population.
Methods: In a sample of 130 subjects aged 7-30 years, with agenesis of at least one upper lateral incisor was chosen. Panoramic radiographs and final and dental

casts were used for analysis and other related dental anomalies, including agenesis of other permanent teeth, ectopia of unerupted permanent teeth, maxillary lateral incisor microdontia, and supernumerary teeth. The occurrence of these anomalies is compared with data previously reported prevalence in the general population. Statistical testing was performed chi-square test ($p < 0.05$) and odds ratio.

Results: Patients with upper lateral incisor agenesis had a significantly increased incidence rate of permanent tooth agenesis (16.8%), except the third molars. The emergence of third molar agenesis in the subgroup aged 14 years or older (n = 76) was 33.5%. The frequencies of the upper second premolar agenesis (9,6%), lower second premolar agenesis (6,5%), microdontia of the upper lateral incisors (32,3%), and distoangulation of lower second premolar (3.3%) were significantly increased in our sample compared with the general population. In the subgroup of patients aged 10 years or older (n = 120), the prevalence of palatally displaced canines was higher (6.2%). The incidence of mandibular molars mesioangulation others supernumerary teeth were higher in the sample.

Conclusions: Agenesis of permanent teeth, microdontia maxillary lateral incisor palatally displaced canines and distoangulation of lower second premolars are often associated with the maxillary lateral incisor agenesis, providing further evidence of genetic linkage to the causes of dental anomalies.

84. CLINICAL EVALUATION OF THE CORRELATION BETWEEN MARGINAL PERIODONTAL PATHOLOGIES AND FIXED PROSTHODONTIC

Kaçani Gerta

Gingival adaptation of fixed prosthodontics and periodontal tissue's assessment place the main role in prosthodontics long term **Results.**

The Aim of this study was to assess changes in correlations between cervical crown edge and marginal gingiva in patiens with fixed prosthodontics.

Methods: 65 patients: 40 women and 25 men, aged from 32 to 65 years were examined. Patients were with different fixed constructions: full metal, metal-ceramic, and total ceramic crowns and bridges with 2 to 20 years longevity. Clinical periodontal examinations included: hygien index, gingival bleeding (PBI), the distance between cervical crown edge and marginal gingiva, probing pocket depth, clinical attachment level, gingival overgrowth, tooth mobility.

Results: Clinical examination indicated little inflammation of the gingival tissues of crowned teeth with margins at the gingival and minor clinical signs of inflammation in cases with supragingivally location of the crown margin. Higher average of PBI was observed when the crown margins were located subgingivally. In summary crowns and fixed prosthodontics increased the incidence of advanced gingival inflammation adjacent to restorations, particularly if they had intra crevical finish line placement,poor marginal adaptation, and rough surfaces.

Conclusion:: The main factors to realize periodontal prophylactic role of fixed prostodontics and to preserve periodontal health are exact adaptation of crowns and retainers toward gingival preparation limits, maximum release of the interdental spaces, correct contour of the crowns, good polishing, motivation and instruction for mouth hygiene of the patient.

85. MULTIDISCIPLINARY RESTORATION OF A PATIENT WITH A NONSYNDROMIC OLIGODONTIA

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Introduction: The condition of missing over 6 teeth, excluding 3rd molars, is called oligodontia, is a rare abnormality affecting very small amount of the population. This familial abnormality is due to various mutations or polymorphisms of genes and associated with malformative syndromes and patients generally seek care because of unaesthetic and socially unacceptable malocclusions. This case report represents the multidisciplinary rehabilitation of a patient suffered from a non-syndrome oligodontia.

Case Summary: A 22 years old woman was admitted to our clinic with complaining chewing difficulties, temporomandibular joint (TMJ) pains and non-esthetic appearance. Panoramic examination revealed that 15 permanent teeth were absent in maxilla and mandible. Following radiographic and clinical evaluations, a decrase in occlusial vertical dimension was observed and the occlusial vertical dimension began to increase immediatally step by step with multiple occlusial splints. After 10 retained primary teeth were extracted five dental implants (OsseoSpeed™ TX, Astra Tech Dental) were placed into the both maxillary and mandibulary alveolar process. During the osseointegration period fixed acrylic temporary restorations were fabricated in the desired occlusial vertical dimension in order to adaptation of the nero-muscular co-ordination. After osseointegration period, complete-arch fixed prostheses in both maxilla and mandible, supported by a combination of implants and teeth were fabricated.

Conclusion: Osseointegration of the implants, peri-

implant mucosa health, and prosthesis function were assessed every 6 months. At the end of 1 year clinical follow-up; the patient was satisfied with the esthetic, function and phonation of her restoration. As a result it can be concluded that to obtain the best esthetic and functional **Results**, an interdisciplinary approach could be used in restorative dentistry.

86. EFFECT OF METAL PRIMERS ON BOND STRENGH BETWEEN DENTAL IMPLANT ABUTMENT AND RESIN CEMENTS

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Purpose: The purpose of study was to evaluate the influence of metal primers on bonding of resin cements-titanium abutments.
Methods: Titanium specimens (Ti6Al4V) were treated with metal alloys (Alloy Primer). Non- primed specimens were considered as controls. Forty specimens were cemented to composite resin substrates using Panavia. Bond strength of specimens were tested after 48 hours. Data were analyzed by 2- way ANOVA.
Results: The use of metal primer was statistically significant. The use of Alloy Primer significantly improved the bond strength of Panavia.
Conclusions: The use of Alloy Primer improved bond strength between Panavia and Titanium (Ti6Al4V).

87. AESTHETIC RECONSTRUCTION OF UPPER INCISORS- CASE REPORT

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Introduction: Each aberration from the genetic norm for shape, size and position of the front teeth disturbs the harmony of the tooth line and the aesthetics of the smile.
Case summary: The prosthetic treatment of two similar clinical cases with orthodontic imperfections-diastemmas, tremas, microdontia and untypical shape of upper incisors.
The modern technique of press ceramic for whole crowns and veneers was chosen for both cases as it is less invasive and highly aesthetic method.
Case 1: A 54-year-old man with spaces between the lateral and the central upper incisors, gingival type of the smile, protrusion and old metalceramic crowns on teeth 11 and 21 unblock. There had been a diastemma in the past.
Teeth 11 and 21 were prepared with rounded step. Tooth 11 was severely discolourated so whitening was held and fiber post core to make it stronger. The lateral incisors were prepared for veneers with more palatinal position of the side boundaries of the preparation.
Case 2: A 23-year-old woman with diastemma over 3mm between upper central incisors, microdontia and conic-shaped lateral incisors.
The central incisors were prepared for full crowns, the lateral ones- for veneers. The patient insisted a small diastemma to be left between teeth 11 and 21.
The final constructions were made after patients' approval of wax prototype.
The **Results** were successful correction of the orthodontic abnormalities, creation of harmonic approximal contacts, natural shape and color, individual and symmetric front segment of the upper jaw and thus creation of an aesthetic smile.
Conclusion: The modern technologies for metal-free ceramic constructions discovered "artistic" ways for the prosthetic dentistry to solve small orthodontic problems.

88. CLINICAL EVALUATION OF REMOVABLE PARTIAL DENTURES MORE THAN FIVE YEARS SURVEY

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Removable Partial Dentures (RPDs) plays an important role in restoring oral rehabilitation of edentulous patients. One of the major reasons for dental treatment is the maintenance of oral function.
The Aim of this retrospective study was to evaluate the differences that occur on the periodontal health of abutment teeth of the patients wearing RPDs based on time of insertion RPDs for a period between one to five and more than 5 years after dentures insertion.
Method: A total of 63 RPDs participated in this study, which 26 were acrylic RPDs and 37 framework RPDs. Based on the time of delivery RPDs there were 47 of patients with RPDs from one to 5 years and 16 of patients with RPDs more than 5 years after dentures insertion.
During this longitudinal study, periodontal health was assessed in correlation with time of dentures insertion. The data's were collected from survey questionnairy, from RPDs wearers, fitted in University Dentistry Clinical Center, Prishtina, Kosova. Abutment teeth were assessed for Plaque Index (PI) by Silness and Loe, Calculus Index (CI) by Greene-Vermilionit, Gingival index - BOP, Periodontal Probing Depth (PD), Gingival Recession (GR) and Tooth Mobility (TM). The statistical analysis was performed using **X^2-test** and Fisher-test**.**

Results: In our study statistical analysis of BOP, PD, PI, CI, GR, TM of the abutment teeth, showed higher values after 5 years wearing RPDs. Our study confirms **Results** of others (M.Kern & B. Wagner 2001). **X^2-test** had statistically significant value of RPDs dentures hygiene after 5 years insertions of RPD's.
Conclusion: In order to eliminate the periodontal damages caused by the removable partial dentures a regular recall system is strongly recommended. The importance of hygiene should be emphasized, because majority of these patients lost their teeth due to an absence of explanation or motivation for dental hygiene habits.

89. ANALYSIS OF FREQUENTLY EXTRACTED TEETH ON A LOT OF PATIENTS IN BUCHAREST

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Aim: The purpose of this study is to investigate the most commonly extracted teeth, leading to single edentulous spaces. The data were gathered from a private dental clinic in Bucharest, in a period of six years, starting with 2005.
Methods: The study included 100 patients, 28 men and 62 women, with ages between 19 and 74 years. Data were registered about age, gender, type of extracted tooth and restoration of the edentulous spaces in two situations: at the first visit of the patients in the dental clinic and at the end of the treatment. The patients were split into 5 groups according to age. For data analyses were used EPI Info programs and Microsoft Excel. The study was conducted over a period of 6 years (2005-2011).
Results: During the period of the study it was found that the patients showed 188 single edentulous spaces. The results showed that the teeth most frequently extracted were represented by first lower molars, followed by first upper molars. In descending order they were followed by upper premolars, maxilar incisives, lower premolars, mandibular incisives, canines and second upper molars, while second lower molars have registered a rate of 1%. Mandibular canines were present at every patient. The study is relevant statistically, $p<0.05$.
Conclusions: Frequent loss of both lower and upper first molars may be due to early eruption of these teeth, so it is mandatory to give a special attention in order to prevent the loss of these teeth.

90. USE OF STABILIZATION OCCLUSAL APPLIANCE IN PATIENTS WITH TMD

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The Aim Evaluation of its efficacy in the treatment of myogenic and arthrogenic TMD-s.
Methods:21 patients (15 M, 6W) with signs and symptoms of temporomandibular disorders were treated with splints for a mean period of 12 months, comprising regular monthly follow-ups. After that period a detailed chek-up was made to see the treatment outcome and patients were divaided in 3 groups: Gr. I patients with no reduction of TMD signs; Gr.II partial improvement; Gr. III total improvement: patients demonstrating remission of the painful symptoms.
Results: Evaluation of the outcomes related to symptomatology before and after treatment revealed a high number of partial and total asymptomatic patients after treatment (85%).Gr. I, - 3 patients(15%). Gr.II,- 7 patients (33%), Gr. III, 11 patients (52%).
Conclusions: Stabilization splints are employed to provide a balanced function of the joint by positioning the condyles into CR position, to protect the teeth, redistribute the forces applied to the jaws, relax the masticatory muscles and decrease the bruxism.

91. ZIRCONIA CERAMIC: PROPERTIES AND CLINICAL OVERVIEW

Chatzinikola M, Mitsias M, Silvestros S.

Introduction: The Introduction of high toughness ceramics, with improved physical and optical properties has become available for dental use. Several clinicians and dental technicians claimed the potential of the combination of all-ceramic abutments and crowns to offer outstanding esthetic results**.** The positive contribution of the all-ceramic materials to the final color establishment of the restoration is related to a deeper diffusion and absorption of the transmitted light into the ceramic mass, which provides the essential depth of translucency in accordance to the natural teeth. Zirconia (ZrO_2) is a ceramic material with adequate mechanical properties for manufacturing of medical devices. Zirconia stabilized with Y_2O_3 has the best properties for these applications. It was first discovered in 1789 by the German chemist Heinrich Klaproth as a metal oxide (ZrO_2). The first proposal of the use of zirconium oxide for medical purposes was made in 1969 and concerned orthopedic application. Prior to 1990 many other studies were performed, in which zirconia was tested on bone and muscle without any unfavor-

able results. For medical applications, a synthetically produced, highly pure zirconia is used. At high temperatures, zirconia (melting point 2.680^{0}C) shows a cubic structure, which transforms during cooling below 2.370^0 C into the tetragonal phase. Below 1170^{0}C, the tetragonal phase shifts into the monoclinic phase. The aforementioned three phases are present in a common ZrO_2 crystal. By mixing ZrO_2 with other metallic oxides, such as MgO, CaO, or Y_20_3, great molecular stability can be obtained. Yttrium-stabilized zirconia, also known as tetragonal zirconia polycrystal, is presently the most studied combination. PURPOSE: The purpose of this presentation is to display zirconia properties and clinical applications using the database of National Library of Medicine.

Conclusions: Zirconia is a well documented ceramic material which offers great aesthetic rehabilitations although it has it's limitations in certain cases.

92. NON SYNDROMIC AGLOSSIA: PROSTHETIC TREATMENT

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Background: Aglossia is a rare anomaly caused by failed embryogenesis of the lateral swelling and tuberculum impar from the fourth to the eighth gestational week. Etiology of aglossia is largely unknown, even though a certain number of theories has been proposed. It may occur as an isolated disorder or in association with other congenital deformities, particularly limb defects, cleft palate, deafness and several disease. Sequelae of this anomaly involve several conditions that have to be treated with the participation of professionals in the areas of nutrition, psychology, speech and hearing, general dentistry, orthodontics, maxillofacial surgery and implantology.

Methods: This report describes a case of aglossia and micrognathia at birth treated with orthodontic, surgical and prosthetic rehabilitation. The patient started with an orthodontic treatment with a "C-modeler" for 5 years, and at 10 and 13 years old was surgically treated for micrognathia. The first prosthetic treatment was at 14 years old with a partial denture with an artificial tongue. The orthodontic treatment finished when the patient was 20. When she was 22 the definitive prosthetic treatment was started: in the lower arch only four teeth were present, so two implants were positioned in order to realize a fixed full-arch prosthesis on implants and natural teeth. After two years those teeth were extracted because of caries and other three dental implants were positioned in order to obtain a new full-arch fixed prosthesis.

93. EVALUATION OF THE CANDIDA COLONIZATION ON THE SURFACE OF REMOVABLE DENTURES

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Aim: Many types and numbers of microorganisms may be colonized in the oral cavity, on teeth, on fixed and removable partial dentures and cause various infections.The most frequent oral fungal infection in human being is Candidiozis. Various candida species may grow in the normal oral, intestinal and vaginal mucosa without giving any symptoms of infection. In conditions with impairment of the host, this species may cause diseases. Dental restorations and appliances such as, crowns,dentures and orthodontic brackets may increase the risk of colonizations. The aim of this study was to evaluate the prevelance of candida species colonized on maxillary removable complete and partial dentures.

Method: Candida colonization and adhesion were invastigated among 120 patients who had rehabilitated with maxillary complete and removable partial dentures in our prosthodontics clinic.After 15 days, using the new dentures, swap cultures were obtained from the polished and unpolished side of polimethyl methacrylate materials on buccal phalange regions. Cultures were incubated in Sabourand Dextrose Agar for 48 hours and then identified by using Uni-Yeast-Tek kit.

Results: Candidial isolation was observed on 42 patients (%35 of all patients). Among 42 patients, 35 of them were found to be colonized by Candida albicans. The other observed candida species were C.tropicalis (6), C.krusei (5), C.kefyr (3), C.famata (2), C.guillermondii (2), C.lipolytica (1), C.lusitonica (1).

Conclusions: Dental prosthesis play an important role by increasing the risk of candida colonizations. Candida albicans is the most isolated yeast among the other candida species.

94. EFFECT OF ACCELERATED AGİNG ON THE SURFACE ROUGHNESS OF DENTURE BASE MATERİALS

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Aim: This study investigated the surface roughness (Ra) and clinical acceptability of samples of a polyamide denture base material, polymetilmeta acrylate (PMMA) fabricated traditional heat processing systems and autopolymerizing acrylic resin.
Methods: Round specimens (diameter 50+/- 1mm, 0,5+/- 0.05 mm thick) of a autopolymerizing denture base resin heat curing denture base resin and polyamide denture bas resin were prepared according to the manufacturers instructions. Each samples surface was polished using convertional technique (late with pumice followed by high shine buff). Then polyamide, heat curing acrylic resin and cold curing acrylic resin samples were submitted to 3000 thermocycling in a thermocycler unit, immersed in alternating water baths at 5 ± 1°C and 55 ± 1°C with a 15-second dwell time. A profilometer was used to measure Ra along 3 tracks on each surface before and after thermocycling.
Results: One-way ANOVA (p<0.05) was used to compare before and after thermocycling surfaces of the three material (polyamide, heat cured and cold cured PMMA) for variations in Ra values. Before thermocycling, a difference was found among polyamide, heat cured and autopolymerizing PMMA; with greater values for polyamide (0.31µm) and lower values for autopolymerizing PMMA(0.08 µm). After thermocycling, again polyamide denture base greater value (0.45 µm) and lower values for heat cured PMMA(0.11 µm).
Conclusions: After thermocycling, materials heat cured and autopolymerizing PMMA surface rougness increased. This increased important statically.On the other hand, there are no change on polyamid materials.

95. A MAXILLARY DEFECT RESTORED WITH BAR-CLIP RETAINED REMOVABLE PARTIAL DENTURE: A CASE REPORT

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Introduction: Defects that are congenital or acquired by trauma and ablative tumor resection surgery can result in significant esthetic deformities and functional disorders, and may result in psychological sequelae. The primary goal of reconstruction is to restore the structural integrity and continuity lost as a result of maxillary and mandibular defects, including an alveolar ridge with appropriate dimension and form.
Gunshot injuries to the face can have serious esthetic and functional consequences. When the surgical treatment becomes in sufficent or is never applied, the prothetic obturation of defect becomes necessary.
Case Report: A 23- years-old man with a surgically recostructed mandibular and maxillary gunshot defect was referred to our clinics. The patient's history revealed that a number of reconstructions had been previously performed involving hard and soft tissue. After clinical and radiographic examinations it was detected that left side maxillary lateral, canine, first premolar, second premolar, and first molar teeth, and left side mandibular first and second premolar teeth were absent because of gunshot injury. A conventional fixed partial denture with an hygienic type pontic was fabricated for the mandible. The fabrication of a bar-clip retained removable partial denture was planned due to the excessive loss of soft and hard tissue in the left maxillary region, The maxillary right central, lateral and canine teeth and maxillary left second and third molar teeth were prepared. The conventional metal-ceramic crowns were fabricated for prepared teeth of both sides. The left and right side crowns were united with a U-shaped bar-clip assembly. After the cementation of metal-ceramic crowns the removable partial denture was fabricated.
Conclusion: After the delivery of the prosthesis the patient was periodically evaluated clinically and radiographically at 3rd, 6th, and 12th months. The one year follow-up period of the patient did not reveal any vehement complication.

96. PROFILOMETER ASSESSMENTS TO DETERMINE TITANIUM ROUGHNESS

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The Aim of this study is comporative topography analysis of titanium alloys (Ti6Al4V) was performed using profilometer. Before the measurement of surface roughness of titanium alloy samples, themsurface had been exposed different surface treatment such as sandblasting used Al2O3 (SB), using CoJet (CJ) and roughening used with bur (B). Samples with no treatment were used as a control group(C). An Ra roughness measurement was performed on each titanium sample by profilometer (Surtronic 25, Taylor Hobson, Leicenter, UK). Mean Ra values range from 0.21 to 0.52 (C, p<0.05), 0.65 to 1.09 (SB, p<0.05), 0.73 to 1.57 (B, p<0.05) and0.45 to 1.43 µm (CJ, p<0.05).The statistically different Ra values depending on the surface studied explained by technical treatment differences.

97. IMPLANTO-PROSTHETIC RESTORATION OF A TOTAL EDENTULOUS YOUNG PATIENT - CASE REPORT

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Aim: The placement of the implants on totally edentulous young patients increases dramatically the functionality of their complete dentures. Dental education around the world is giving more and more space in the dental schools curriculum and in CME programs to learn to treat patients with dental implants, which is a much better training than the courses sponsored by implant companies. This case report is showing a young male patient with a massive bone loss due to periodontal disease who was successfully rehabilitated, both functionally and esthetically, using two implant supported overdentures.

Case report: The patient came to the dental clinic seeking for full oral rehabilitation. After the clinical and radiological examination, we extracted the few irrecoverable remaining teeth, the patient becoming totally edentulous. Over the healing period he wore two interim complete conventional dentures. His main request was to obtain the best possible retention for the final restorations. Together we decided to restore the arches using overdentures which are creating a natural esthetic and an enhancing facial appearance and compensating for lost soft and hard tissues better than fixed prosthesis. The bone quantity and quality was evaluated using a CT scan and four implants were inserted on each arch. After a period of six month we fabricated the overdentures on implants using stud ball attachments.

Conclusions: Young patients in totally edentulous situations pay a lot of money for denture adhesive and fabrication of new conventional complete dentures. The overdentures on implants are a much better treatment option for them both from the financial point of view and also for the main benefit that implants are preventing the further bone loss in areas where tooth are missing. The improved function increases the range of food that the patient can eat, and also his general health.

98. THE IMPORTANCE OF DENTO-FACIAL ORTHOPAEDICS IN DIAGNOSIS AND TREATMENT OF SOAHS

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Introduction. SOAHS (Sleep Obstructive Apnea Hypopnea Syndrome) is the most common sleep apnea due to an obstruction in the upper airways of the respiratory tract**The Aim** of this study is to show SOAHS symptoms, which can be either local or general, compare them to non SOAHS patients and show how treatment can relieve these sypmtoms.

Methods. Several SOAHS patients have been examined in our dental office during our study. We gathered all information recorded by their extraoral, intraoral, functional and radiographic examinations and then compared all these data to non SOAHS patients's symptoms. After that several orthopaedic and orthodontic appliances were applied to these patients like quadhelix, rapid palatal expander etc.

Results. SOAHS patients present several signs like oral breathing, labial inocclusion, fatigue, narrow pharyngeal space, loss of weight in children and obesity in adults, etc.... After treatment with orthopaedic and orthodontic appliances these patients referred that the above symptoms were obviously relieved.

Conclusion:. The DFO specialist has a very important role in diagnosis and treatment of SOAHS patients, because very often he is the first person who examines children with SOAHS's dysfunctions. Working with other specialists (especially ORL and Maxillo-Facial specialists) the orthodontist makes the patient regain his full functional and esthetic equilibrium by expanding the naso-oro-pharingeal space in different ways.

99. REASONS FOR THE DURATION OF THE ADAPTATION PERIOD TO TOTAL DENTURES

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The Aim of this study is to identify the factors that influence the adaptation to total dentures and can become a cause for the prolongation of the adaptation period.

Methods: Totally edentuous patients with total dentures made by students from fourth and fifth course, studying at Department of prosthetic dentistry in the FDM-Sofia has been investigated. Questionnaire was developed in two parts. The first part includes questions about the prosthetic conditions and objective examination of the patient and is completed by the dentist. The second part includes questions to the patients, divided into 5 groups: 1. Previous experience with prostheses and duration of their use; 2. Evaluation of the comfort of the new dentures; 3. Questions about feeding with dentures; 4. About phonetics and 5. Regarding aesthetics of dentures. Each patient has passed three scheduled checkups.

Results: A statistical data processing has been done. The average values of the received answers in groups of questions has been analyzed. The main factors influencing the habituation to total dentures has been determined. An assessment of the significance level of each factor for the period of adaptation to total dentures has been made. The time required for the overcoming of any problems and the time for adaptation to new dentures has been recorded.

Conclusion: The subjective and objective reasons which can lead to prolongation of the periods of adaptation to

total dentures has been clarified and must be taken into consideration in the elaboration of total dentures during the students training and in dental practice.

100. PROSTHETIC STATUS OF PATIENTS WITH ALZHEIMER'S DISEASE IN SERBIA

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Introduction: Alzheimer's disease represents progressive, neurodegenerative disease that threatens the performance of everyday activities and therefore represents a major problem of nowadays medicine. Disease progression causes a worsening of oral health because of difficulties in performing oral hygiene, impossibility to perform most dental treatments and frequent difficulties in denture wearing.
The objective of this research was to examine the dental and prosthetic status of patients with Alzheimer's disease in Serbia.
Methods: The sample consisted of 40 elderly patients with Alzheimer's disease who in the last 5 years have not significantly changed their dental status. Specially designed questionnaire collected data such as: whether the patient is edentate or toothless, the number of natural teeth and the presence of mobile and / or fixed dentures.
Results: Among the respondents, partially edentulous ones were more common than edentulous. Although most of the respondents (66%) had some kind of prosthetic device, it was found that most of them were not adequate since they were produced 15-30 years ago. Complete dentures were the most common prosthetic device. The presence of dentures was more common in women than in men.
Conclusion: Oral health with patients with Alzheimer's disease is poor because of the frequent teeth loss, which is not properly rehabilitated. As the patients with this diagnosis cannot be successfully treated with prosthetic treatment in advanced stages of the disease, the best is to perform a comprehensive dental and prosthetic treatment for all elderly people and especially in the early stages of dementia.

101. PROSTHETIC RESTORATION OF A RARE CASE OF DENTINOGENESIS IMPERFECTA - CASE REPORT

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Aim: This poster presents a clinical case of a young female patient with dentinogenesis imperfecta. Dentinogenesis imperfecta is a hereditary disease that affects both the primary and permanent dentition. Early diagnosis and treatment can prevent the loss of teeth, the loss of vertical dimension of occlusion, and also avoid the appearance of special problems such as aesthetic and functional aspects, with psychological consequences on patients. Three types of dentinogenesis imperfecta are described in the literature. Type I is considered when dentinogenesis imperfecta joins with the osteogenesis imperfecta, type II do not presents this association, while in the case of type III the pulp chamber of the teeth are larger than usual. The most difficult situation for the prosthetic reconstruction is the one without any root canals, like the patient presented in our case.
Case report: The patient came to the dental office seeking for full oral rehabilitation. After the clinical and radiological examination, the diagnosis was dentinogenesis imperfecta type II. She was already missing teeth on both arches, with major overerruptions and changes of DVO and intemaxillary relations. Radiological examination showed the absence of the root canals which increases the difficulties of the treatment. The patient was fully rehabilitated using fixed metal-ceramic restorations (crowns and bridges).
Discussion: The treatment of dentinogenesis imperfecta represents a challenge for the dentist, the purpose of the treatment being the aesthetically and functional rehabilitation of the patient.
Conclusions: In order to prevent the emergence of further complications it is recommended that the treatment of dentinogenesis imperfecta start as earlier as possible, at the same time being indicated a close collaboration between the clinicians: orthodontist, therapist and prosthetician. The esthetic and functional **Results** are more and more difficult to obtain if the treatment begins in later stages.

102. THE SURFACE ROUGHNESS OF A Y-TZP CERAMIC TREATED WITH THE ER:YAG LASER

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The Aim of this study was to evaluate the effect of output power, pulse repetition rate and pulse duration of the Er:YAG laser on the surface roughness of yttria-stabilized tetragonal zirconia polycrystalline ceramic (Y-TZP).
Methods: 30 square shaped Y-TZP specimens were used. The surface roughness of each specimen was measured with a profilometer before laser irradiation. The average surface roughness (Ra) was used. According to the laser parameters,

the specimens were divided in to six groups (n=5). The used parameters were 200 mJ, 10 Hz and 100 mJ, 20 Hz at very short pulse, 250 mJ and 300 mJ, 10 Hz at very short pulse, and 200 mJ, 10 Hz at short pulse and long pulse. After the laser irradiation, the surface roughness of each specimen was measured with profilometer at the same conditions. ΔRa was calculated with use equation of ΔRa= Ra (initial) -Ra (final). ΔRa values were analyzed with Kuruskal Wallis, Mann-Whitney U test, and Spearman rank correlation.

Results: The highest increasing was observed in the group irradiated at 200 mJ, 10 Hz at long pulse duration. The **Results** of Kuruskal Wallis and Mann-Whithney U test revealed that there were statistically significant differences according to the different output powers, pulse repetition rates, and pulse durations (p<0.01 for each). The correlation analysis exhibited that there were statistically significant negative correlation between output power, and pulse repetition rate and roughness (p<0.01 for each).

Conclusions: Output power, pulse repetition rate and pulse duration of the Er:YAG laser affected the surface roughness of Y-TZP ceramic. Output power and pulse repetition rate had a strong negative correlation with the surface roughness. Within the limitations of using parameters in the present study, it was concluded that the using low output power, low frequency, and long pulse mode could better increase the surface roughness.

103. COMBINED TREATMENT WITH LASER-SINTERING AND ZIRCONIUM: CASE REPORT FOR DENTINOGENESIS IMPERFECTA

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Introduction: Osteogenesis imperfecta (OI) is a heterogeneous disorder of connective tissue and mainly manifest as skeletal deformity and bone fragility. Dentinogenesis imperfecta (DI) is sometimes an accompanying symptom of OI. Treatment protocol of these patients varies according to the clinical appearance. The present case report describes a full mouth rehabilitation of an 18-year-old male patient with DI which accompanies OI by Laser Sintering (LS) method of metal-ceramic restorations and zirconium all-ceramic crowns.

Case Report: An 18-year old male patient was referred to the Department of Pediatric Dentistry, Dental Health Sciences Center, Gulhane Military Medical Academy for examination, evaluation and treatment of his defective and hypersensitive teeth. A detailed dental and medical history was obtained. His medical history indicated that he has osteogenesis imperfecta and was treated orthopedically for this reason. It was obtained from his dental history that composite laminate veneers were applied 3-years ago for esthetic reasons to the upper anterior teeth

The treatment strategy for this case was decided to reconstruct all upper and lower teeth with fixed partial denture for the protection of remaining hard tissues and to achieve function, esthetic and vertical dimension. For posterior teeth, metal-ceramic crowns were preferred both for economical reasons and stability. The anterior teeth of the patient were restored with all-ceramic crowns for esthetic reasons. Zirconium porcelain was decided to use for its superior resistance property compared with the other all-ceramic materials.

Conclusion: The treatment strategy should focus towards protecting teeth from further wear. The oral rehabilitation of patient indicates paramount care for esthetic, obtaining an appropriate vertical dimension and providing soft tissue support to return the facial profile to a normal appearance. A multidisciplinary planning is required for treatment of these individuals.

104. PROSTHETIC REHABILITATION OF A MANDIBULAR DEFECT: CASE REPORT

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Introduction: Maxillofacial defects may be caused by congenital, acquired and developmental factors. These defects are prosthetically restored after being subjected to surgical reconstruction.

Conventional methods: used in the retention of maxillofacial prostheses are far from providing efficient and satisfactory retention. In recent years, high success rates obtained with implant supported intraoral prostheses have revealed that the low retention rate which is a problem in maxillofacial prostheses could be overcome with the use of an implant.

Case Summary: The use of implant supported hybrid prostheses is an appropriate treatment in edentulous crests where there is extensive loss of hard and soft tissue. In this case report the restoration of a segmental mandibular defect which occured after the resection of an ameloblastic tumoral lesion with an implant supported hybrid prosthesis after being subjected to surgical reconstruction is presented.

Conclusion: It was determined that the implant supported hybrid prosthesis provided a satisfactory function and comfort in a patient with unilateral mandibular defect after a follow-up period of one year.

105. PROSTHETIC TREATMENT OF PALATOSCHISIS WITH A FLEXIBLE PROSTHESIS- CASE REPORT

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(2)- Dental Laboratory "Tomi"ltd- Varna

Introduction: Cleft palate (palatoschisis) is a serious esthetic and functional problem that causes difficulty in chewing, swallowing and speaking. In that case plastic surgery takes place to reconstruct the roof of the oral cavity usually at the age of 18 months.
Case summary: Our patient is a young man, 26 years old, with hypodontia, who already had several unsuccessful plastic operations, the first one at the age of 10. We wanted to offer the patient appropriate prosthetic treatment in order to close the communication between the oral and the nasal cavity, to restore the chewing function, esthetics and to improve the quality of patient's life.
We decided to fabricate Bio Dentaplast partial denture, combined with an obturator. The materials that are processed with this system are thermoplastics with properties that are clearly superior to the chemical and mechanical properties of any type of denture. In this way the patient was treated with bio-compatible, metal-free, practically invisible, light and flexible denture.
As a result we managed to close the defect of the palate, improved the speech and at the same time gave the patient better chewing function and esthetics.
Conclusion: The contemporary prosthetic dentistry gives great opportunities for better esthetic and functional re-habilitation of masticatory apparatus in combined clinical cases of cleft palate and hypodontia.

106 THE EFFECT OF DİFFERENT SOLUTİONS AND THERMOCYCLİNG ON THE VİCKERS HARDNESS OF ACRYLİC RESİN DENTURE TEETH

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Aim: Artificial teeth are often necessary for prosthodontic rehabilitation when natural teetharelost. Different factors can influence the hardness of resindentureteethand dental restorative materials, such as mouthenvironmentsubstances, temperature and chemical disinfectant solutions. This study aimedtoevaluatethe effect of artificialsaliva, disinfectant solution, distilewaterand thermal cycling on Vickershardness of 4 commercial brands of acrylicresinteeth.
Methods: Four different brands of acrylic resindent ureteethwereevaluated (AcryRock, AcryLux, Major, Imıdent). 72 acrylic resinteeth, 3 anterior 3 posterior teeth groups from 4 brand's, embedded in autopolymerized acrylicresinand the surfacewere prepared in terms of areas for theme asurements. After polishing, micro hardness measurement swere obtained for all specimens and theme asurement swere repeated thre etimes from different points for each teeth. The teeth were submitted to different conditions: (1) storage in distilledwater at 37 ± 2 °C for 7 days; (2) storage in artificial saliva at 37 ± 2 °C for 30 daysand (3) storage in % 1 sodium hypochloritefor 30 days. After, thermal cycling between 5 and 55 °C for 2500 cycles wasmade. The micro hardness measurement swere repeated for each teeth after thermal cycling. Data were analyzed witht wo- way ANOVA, Paired-Samples T and Duncan test ($p< 0.05$).
Results: Initially, Majorand Acry Luxgroup presented the highest statistically significant Vicker shardness value while Imident group exhibited thes mallest statistic allymean ($p<0.05$). After keeping different solutions and thermal cycling, the hardness value of all specimen significantly reduced. Finally, Major group presented the highest statistically significant Vickers hardness value while Imident group exhibited the smallest statistic allymean.
Conclusions: Storage in different solutions and thermal cycling significanty reduced the Vickers hardness of the acrylicre sindenture teeth.

107. DISTRIBUTION OF OCCLUSAL LOADING ON THE LOWER EDENTULOUS JAWS

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In order to function effectivelly,complete denture has to be stable during chewing. The location of the oclusal contact, the size of the basis of the denture and the shape of the residual ridge effect the stability of the total mandibule.
Aim: The objective of the paper was to examine the influence the shape of the toothless denture has on the allocation of the tension on a toothless mandibule and how the shape of the lower residual alveolar ridge influences on the retencion and stability of the complete mandibular denture.
The research was conducted by Finite elements analisys (FEA) in computer simulation of in vitro. Three different models of the shape of the lower residual alveolar ridge (RAR) have been made.The occlusal loading of 100N has been applied in the form of the vertical force on the place of realization of the central contacts with each of the three models.

The calculation of the tension and deformity has been conducted in the packet program for FEA ANSYS Work bench. The maximum tension with model 1 is 5.83×10 7 Pa. The calculation of model 2 has shown a great value A of deformity, that implies that the total mandibular denture has no real stable prop and that complete mandibular denture is moving on muco-oseal base under the influence of the outer loadings. The maximum value of the tension with model 3 is 5.05×10 7 Pa.

Conclusion: The shape of the residual alveolar ridge influences on the image of the tension states and deformities of the toothless mandibule.

108. DEEP IMPACTİON OF A MANDİBULAR PRİMARY CANİNE BY A COMPLEX ODONTOMA: A CASE REPORT

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***Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey*

Sixteen year old male patient was referred to Ankara University, Faculty of Dentistry, Department of Orthodontics for evaluation of necessity for orthodontic therapy. Clinical examination revealed missing left primary canine. A complex odontoma above the crown of impacted manibular left molar was observed on panoramic radiography. Surgical removal of the odontoma and orthodontic traction of the primary canine was decided although it is deeply impacted. After surgical excision of the complex odontoma with local anasthesia, an orthodontic bracket and ligature wire was fixed on the crown of impacted canine. Orthodontic traction of the tooth was initiated with the conventional orthodontic treatment. The patient is still in follow-up period and traction of the impacted canine is under control. Careful radiographic and clinical examination must be performed in case of delayed eruption of primary teeth in pediatric patients. Several factors such as bone density, local infection or cystic changes may be effective on the impaction of primary canine teeth. Complex odontoma is also a way for impaction and must be eliminated as quick as possible in order to provide orthodontic traction of impacted canine.

109. A MINI MAXILLARY PROTACTOR FOR CLASS III CORRECTION

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Class III malocclusions may involve a variety of skeletal and dental components, including a large or protrusive mandible, a deficient or retrusive maxilla, a protrusive mandibular dentition, and a retrusive maxillary dentition. In the case of a skeletal class III patient with a retrusive maxilla, a reverse headgear can reliably produce forward movement of the maxilla and posterior rotation of the mandible.

This poster shows the use of a modified maxillary protactor in a patient with severe class III malocclusion. The mini-maxillary protaction appliance consisted of four parts; a maxillary expander, a mandibular plate, chin-cup and a lower facebow which is used to connect the chin-cup to the mandibular plate. Positive overjet waas obtained in four months and cephalometric analysis indicated an improvement in the sagittal jaw relationship. We have been using this mini-maxillary protractor for the past few years to correct skeletal class III malocclusions in growing patients. Our **Results** suggest that a mini maxillary protactor appliance is effective for correcting skeletal class III cases with maxillary deficiencyand mandibular protrusion.

110. TREATMENT WITH ACTIVE ORTHODONTIC MOBILE APPLIANCE IN ADULT PATIENT

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Aim: Showing the efficiency of orthodontic mobile appliance in treatment of adult patient.

Case summary: The patient A.K aged 25 years with forced progenia, bilateral hipodontia of the maxillary lateral incisors and cross bite of 2mm in front. The patient was treated with active orthodontic mobile appliance with bitten ridge and down labial arch. The treatment lasted 18 months after which period is reached normal occlusion with normal overlap in front and closed diastema mediana. The hipodontia of the maxillary lateral incisors is resolved by prosthetic construction.

Conclusion: By solving this malocclusions the patient has established normal function of stomatognathic system and the required esthetic is satisfied. This case demonstrates that orthodontic mobile appliance can be used in treatment of adult patients with significant success.

111. THE RELATION BETWEEN CRANIOFACIAL DIMENSIONS AND MESIODISTAL WIDTHS OF ANTERIOR TEETH

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The objectives of this study is to assess the relationship of anterior tooth size with craniofacial dimensions. This relationship could be used in determination of anterior teeth mesiodistal dimensions, in missing teeth cases for orthodontic treatment

Methods: 80 cases (40 boys and 40 girls) were selected from secondary school childrens. These childrens should not have orthodontic treatment.

Anterior teeth, should not be missed.Bizygomatic width(z), bigonial width (m), frontal width(f), cranial width(c), mesiodistal width of anterior teeth (m-d) was measured. For all cases anterior Bolton ratio were determined.

Results: Craniofacial dimensions (means): (z: max: 139, min:108 and mean: 118.94), (m: max:120, min:94 and mean 105.55), (c: max:161, min: 112

And mean:149.97).All measurements are in millimeters.

Conclusion::The correlation coefficient of anterior Bolton ratio and bigonial Width(0.235; P<05)and maxillary intercanine width(0,027; P<05) was statistically significant.For orthodontic treatments, according to this study, we can use bigonial and maxillary intercanine widths.

112. THE COOPERATION ORTHODONTIST-PROSTHESIST FOR A COMPREHENSIVE TREATMENT IN ADULT PATIENT

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A better quality of life has brought a higher self estimation of our patients. A great number of those patient whom denied the orthodontic treatment at younger ages are ready to undergo an overall treatment.

The Aim of this paper is to show the importance of orthodontic treatment as the first step of treatment, to overcome the limits of prosthetic solution in some specific cases.

Methods. Some clinical cases will be presented. They were treated first orthodontically thus creating more room for the prosthesist to make the final treatment.

Conclusion: All patients were satisfied at the end of the treatment. Beyond a longer time of treatment, they were aware of profits from this combined treatment.

113. NONEXTRACTION TREATMENT OF CLASS II DIVISION 2 WITH STB LINGUAL TECHNIQUE IN ADULTS. CASE REPORT.ABSTRACTPOSTER PRESENTATION

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Aim: To evaluate the options for nonextraction orthodontic treatment in nongrowing patients with Class II division 2, mild to severe crowding and deep bite with STb lingual technique.

Method: It's representatively chosen an orthodontically nongrowing patient. A female, age 21, presented with Class II malocclusion division 2, skeletal Class II, moderate crowding in upper arch and severe crowding in the lower arch, deep bite, hyperdivergent skeletal type, lingual position of the lower right second premolar. A full size orthodontic treatment with STb lingual technique is conducted in both arches. The treatment stages and patient's appliance tolerance were followed up. A biometrical, orthoradiographic and cephalometric analyses are made for results assessment

Results: The treatment is completed in 27 months. The optimum treatment results are obtained. The main vertical, transversal, sagittal and aesthetical deviations determined in diagnostics are resolved. The level of covering is evaluated and patient is satisfied with the achieved aesthetical results**.**

Conclusion: Lingual orthodontics meets the requirements for aesthetics in adult patients. Lingual appliances can not be defined as harder for adaptation. The biomechanics of lingual appliances support the anchorage segments and facilitate the leveling and the alignment of teeth in both arches. Lingual orthodontics favours the choice of nonextraction treatment methods.

114. AESTHETIC DENTISTRY MEANS NEW SMILE (CASE REPORT)

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The Aim of this clinical case is to improve facial esthetic, and establishment of the functional bite, in

a patient with anterior open bite and ectopic upper canine.
Method: A 31 year old underwent 1-the extraction of #13(because of its palatal position), placement of implant Miss seven Ø5x13mm hexagon intern,and a porcelain crown over it. 2-Riconstruction of #25. 3- Venieers full porcelain (IPS emax Press)on #11, 12, 21,22,23 and placement of partial crowns full porcelain on #14,15,24.
Results: In this case report we achieved replacement of #13 and remodeling of dental arches, rehabilitation of the occlusal plan, and improvement of smile design.
Discussion: The treatment that was conducted, gave opportunity the patient to obtain a correct bite in addition to meet correction of defect. Also we managed to win the final alignment and size of anterior teeth and a roofing incisal in harmony with surrounding structures, which leads to disappearing of psycho-emotional concerns at the end of treatment
Conclusions: Undoubtedly the most appropriate treatment for the patient would have been the combination of orthodontic, endodontic with fixed prosthodontics. Application of fixed prosthodontics without complementary orthodontics, although it is not conservative, provided the patient's optimal function and aesthetics within a short time. Selecting the application of Veneers or partial crowns, and a superior material (IPS e.max Press the IVOCLAR VIVADENT) allowed for execution of works on conservative and most advanced possible. The final result showed that the fixed prosthetics is a very good alternative and successful treatment in these cases.

115. TREATMENT WITH FIXED ORTHODONTIC THERAPY, CLASS II/ 1 WITH THE PREMOLAR EXTRACTION IN UPPER JAW

Fadil Mehmeti
Albi Ortodent – Tetove, F.Y.R.O.M

Case summary: The purpose of this poster presentation is to present the case of an 15 year old patient with second ortho class in the first division, that was treated with a fixed orthodontic device with a Root 22 System from Dentaurum, with a thermodynamic 12,14,16,18 steel wire 16x16 with Shpay. Because of the great teeth compactness and a small applicable base in the maxilla and large crowns of the teeth we decided to start with the extraction of the first premolars in the upper jaws.
Conclusion: The patient has been treated for 24 months and as a result of the relocation (distalization) of the frontal maxillary teeth and the mesialization of the posterior teeth, a good intercuspidation has been reached.

116. INTEGRATED ORTHODONTIC-PROSTHETIC TREATMENT

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Objective: Presentation of a clinical case of a patient T.V. of 29 years old with prosthetics problem that couldn't be solved without orthodontic pre-treatment. The patient did not want a complete leveling (alignment) of the teeth. She requested shorter orthodontic pre-treatment and invisibility of the used appliances. New orthopedic constructions are foreseen to be placed in the patient upper left quadrant but this should be introduced in the dental arch 23 and 25.
Methods: Suggested orthodontic plan includes replacement of the crown 26 by plastic one, which is more reduced in size toward 25; placing of supporting mini crew; vestibular pulling of 25; distalisation 25 and 24; introducing 23 into the dental arch.
Results: The used segmental technique meets the requirement of device invisibility and leads to a quick and expected result. The patient was prepared in a period of 6 months for main orthopedic treatment. This "small" orthodontics was the big step to successful treatment of the patient.

117. THE SURGICAL-ORTHODONTIC TREATMENT OF THE IMPACTED CANINES

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Aims: to show that the surgical-orthodontic treatment of the impacted is the most appropriate choice. The untreated retained canines may result in serious consequences such as:displacement of the neighbor teeth and shortening of the dental arch, internal resorption, formation of follicular cysts, external resorption of the canine,infections especially when the tooth is partially erupted, frequent pain, or combinations of these symptomps.
Methods: The examined group consisted of children diagnosted with impacted maxillary canines in private clinics. The diagnosis was established based on clinical examination, and radiographic one. The treatment depends on the type of dental anomaly, Angle Class, so the orthodontic treatment fulfills its primary function: repairing of dental anomaly.Braces were placed on the teeth, to provide room for the impacted canine. A surgical procedure is performed by the surgeon, the gum on top of the impacted tooth will be lifted up to

uncover or expose the hidden tooth underneath, a small ostectomy in the form of a window can be made in the vestibular cortical. After the exposition of the tooth,an orthodontic bracket will be bonded.A small chain will be installed on the bracket. The chain will be attached to the orthodontic arch wire. This will begin the process of moving the tooth into its proper place in the dental arch.

Results: In our clinical cases the exposition of canines lasted an average of 6 months,while the alignment of the teeth lasted 9-12 months.

Conclusions: Alignment of the impacted teeth can be associated with complications.

But considering the major importance of the canine,responsible for the frontal triad,it is very important to proceed with surgical –orthodontic treatment.This ensures proper occlusion and aesthetic appearance.

In each clinical case of ectopic canine it is essential observation and appropriate choice of radiological diagnostic techniques.

118. DIVISION 1 IN ADULTS

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Apart from distal relationship of dental arches the main characteristic of malocclusion class II Division 1 is upper front teeth protrusion. In adults it is usually accompanied with a substantial degree of periodontal disease.

The Aim of this study is to show that satisfactory aesthetic and functional results can also be achieved for these patients what was the goal of the treatment. In these patients early loss of the teeth is prevented, orthodontic irregularities are corrected and subjective and clinical signs of periodontal disease are eliminated.

Methods: The study included six patients aged from 40 to 50 years of both sexes. Lateral orthopantomographic images were made and study models analysis was previously done. Orthopantomographic images showed advanced resorption of alveolar bone with a number of infrabony periodontal pockets. Anamnesis was taken on general health of patients and the treatment plan was made. It consisted of two phases:

- the first phase included extraction of two premolars one in each quadrant of the upper jaw. Then the fixed orthodontic appliance was placed in upper and lower jaw. After the space was closed and incisal step was corrected the second phase of treatment started. The results of the first phase were checked by the control imprints on plaster models of both jaws. Teeth leveling were done by round NiTi 0.16 and 0.18 arches. Empty extraction and interdental spaces were closed with square stainless steel arches. The first phase of the treatment lasted 15 months,
- the second phase included fixed denture such as circular bridge. The treatment lasted 4 months. The distal occlusion was corrected traumatic occlusion was eliminated and balanced occlusion and articulation of the teeth as a whole was established.

Results: Regular check-ups showed that clinical symptoms of periodontitis disappeared, as well as gum bleeding. The gums are healthy and pink and there is no recurrence and complication of the disease. And what is the most important thing for a patient there is a full aesthetic effect.

Conclusion: The study showed that ideal functional and aesthetic results in patients with severe orofacial deformities can be achieved only by a combined orthodontic-prosthetic treatment.

119. PERIODONTAL HEALTH DURING ORTHODONTIC TREATMENT

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The Aim of this study was to examine periodontal changes during orthodontic treatment.

Methods: The study subjects were recruited patients seeking orthodontic treatment in the UMF "Victor Babes" Orthodontic Department. A total of 32 subjects (14 male, 18 female), aged 16-23 were monitored. Plaque index (Pl.I), gingival index (GI), and probing pocket depth (PPD) were measured before appliance placement, during the treatment and after appliance removal. All patients received thorough dental hygiene instructions.

Results: There was a significant increase in Pl.I, GI and PPD during the first 3 months of appliance. However at 6 months these values decreased significantly. After appliance removal there was no significant difference between the measured values and those recorded before appliance placement. ($P < 0.001$)

Conclusions: Fixed orthodontic treatment presents significant dental plaque accumulation and gingival inflammation. After the removal of orthodontic appliances, periodontal health improves. However, it can be safely stated that fixed orthodontic treatment presents a risk to periodontal health in certain patients.

120. EFFECTS OF EARLY UNILATERAL MANDIBULAR FIRST MOLAR EXTRACTION ON CONDYLAR AND RAMAL VERTICAL ASYMMETRY

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Aim: To investigate the mandibular vertical asymmetry in a group of adult patients who had early unilateral mandibular first molar extractions.
Methods: Mandibular asymmetry index measurements (condylar, ramal, and condylar-plus-ramal) were made on the panoramic radiographs of a study group including 51 subjects (mean age: 18.60±1.11 years) and a control group of 51 subjects (mean age: 18.53±1.29 years). Group I included patients with a unilateral mandibular first molar extracted before the age of 12 years. Group II comprised the control group patients with no extractions and had excellent Class I relationships, no missing teeth, and slight or moderate anterior crowding. A paired *t*-test and Student's *t*-test were used for the statistical analyses.
Results: No group showed statistically significant sex- or side-specific differences for posterior vertical height measurements. Condylar asymmetry index (CAI) and ramal asymmetry index (RAI) measurements were not statistically different between the groups, while condylar-plus-ramal asymmetry index (CRAI) measurements were statistically different between the groups (p= 0.019).
Conclusions: CRAI value was statistically significantly more asymmetric in patients with unilateral early loss of mandibular first molar.

121. NEW GENERATION BRACKET FOR IMPROVED ORTHODONTIC TREATMENT

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The orthodontics is a very specialized area of dentistry that deals with the diagnosis, prevention, interception and treatment of dental and facial irregularities that are caused by crowded, crooked teeth or by poorly aligned jaws.
Orthodontic treatment does not only improve the health of teeth and gums, but dramatically improves a personal appearance and self-esteem. Crooked teeth or a bad bite can contribute to tooth decay, abnormal wear of the teeth, and loss of the gum, bone and teeth. Straight aligned teeth create a more perfect bite, which can reduce stress, headaches, and strain on supporting bone and tissue. When left untreated, many orthodontic problems become worse, contributing to abnormal wear of tooth surfaces, inefficient chewing function, excessive stress on gum tissue and the bone that supports the teeth.
Self-ligating bracket system gives the control in every phase of treatment and have reached a stage of design and production control, where the advantages are significantly greater than the remaining imperfections. Self-ligating brackets benefit: easy-to-open, easy-to-close clip technology, no wire ties or "O" rings for better hygiene and appearance, low friction between bracket and archwire, there are no elastic or metal ties! This means less irritation, less plaque build-up and less difficulty keeping teeth clean, faster adjustments mean shorter visits less chairtime, improved oral hygiene, fewer appointments, improved comfort, superb aesthetics, using light, gentle forces, makes these brackets make the path to a beautiful smile faster and more comfortable!
Conclusion: Self-ligating system bracket is a new and technically advanced system that can give the radiant smile more quickly than traditional braces, and without the need for ugly, unsanitary, and uncomfortable ties or elastics. Best of all, there's never a need to have the brackets tightened! Using light, gentle forces, this system makes the path to a beautiful smile faster and more comfortable!

122. ORTHODONTIC EXTRUSION OF TEETH WITH SUBGINGIVAL FRACTURE

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***University of Belgrade, School of Dentistry, Department of Pedodontics.*

Prostetic, or conservative reconstruction of fractured teeth is very dificult if fracture line is subgingival. In that cases is neccesary to extrude the rooth enough to made fracture line visibly.
The Aim of this study is to present orthodontic posibilites in extrusion of fractured tetth.
Cases in mixed and permanent dentition will be presented, treated with removable and fixed applaiances. Before orthodontic treatment, in rooths was plased metal or fiberglass pins, wich alowed insercion of extrusion force.
Only after orthodontic extrusion of subgingivaly fractured teeth is posible to reconstruct the crown with all functional and estetic demands.

123. APPLICATION OF ORTHODONTIC DEVICES IN THE BREATHING FUNCTION REHABILITATION

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Introduction: The enlarged adenoid vegetation are one of the main causes of oral respiration. The oral respiration remains often after the cause elimination.
Aim: The goal of this work was to study the effect of some orthodontic devices in the breathing function rehabilitation after the adenoidectomy.
Methods: The study included 42 samples, age 7-15 who also after the adenoidectomy retained the oral respiration. 23 samples accepted the orthodontic treatment and they made the first group, the second group included 21 sample who didn't accept orthodontic therapy, but who responded to the control checkup after one year.
Vesitibular plates as well as a monoblock were used in the therapy.
Results: At every first group sample, a nasal respiration was established after three months. At four samples a relapse appeared between the sixth and twelfth months. Other samples appeared on the control checkup 12 months later and at all of them was diagnoses a nasal respiration.
At 14 second group samples, a nasal respiration was diagnosed one year later. At 7 samples was diagnosed the oral respiration.

Conclusions

- The successful adaptation of patients with mouth breathing to nasal breathing can be achieved by orthodontic appliances.
- More of 75% of children, with orthodontic appliances, solved the problem of mouth breathing after three months.
- The first sign of recidive was the inpossibility of further wearing of appliance.
- Patients who have history of mouth breathing and were not orthodontically treated need a longer period of time for getting used of nasal breathing.
- Our **Results** indicated that for successful rehabilitation of breathing, it is necessary to have cooperation between the otorhinolaryngologist and orthodontist.

124. ORTHODONTIC AND PERIODONTIC APPROACH IN PERIODONTALLY COMPROMISED PATIENTS

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This case report presents the interdisciplinary approach (orthodontic – periodontal) of malocclusion treatment in periodontal involved patients. Patients with advanced periodontal disease may experience tooth migration involving single or multiple teeth. The most common symptoms include tipping and extrusion of one or more incisors and the development of spaces between the anterior teeth. The management of such cases requires judicious interdisciplinary treatment.
Case Report: A 22 year male patient with proclined front teeth. On examination, he was diagnosed with Angle Class I occlusion, proclined maxillary and mandibular anterior teeth with spacing, crowding in the posterior area and cross bite, chronic localized periodontitis due to occlusion trauma. Periodontal initial therapy comprising of scaling and root planning was performed before orthodontic treatment. Alignment of the teeth was achieved through light forces using NiTi wires. Continuous monitoring of periodontal health was performed and the patient received strict oral hygiene instructions. Fixed retention was applied at the end of the treatment. Regenerative periodontal therapy was performed after the end of the orthodontic treatment.
Conclusions: The key element in the orthodontic management of adult patients with periodontal disease is to eliminate plaque accumulation and gingival inflammation. If the patient is carefully monitored and dental hygiene instructions are followed thoroughly the **Results** are very satisfactory.

125. THE IMPORTANCE AND EVALUATION OF ASSESSMENT OF BIOLOGICAL AGE COMPARED TO CHRONOLOGICAL AGE

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Background: The postnatal growth starts from birth and continues until adulthood. The maturity is reached when the process of growing has reached in to a point, in which it is possible to perform any action and function or to keep certain stability. This stability is described in relation with specific stages, like the stages of bone morphology on the hand wrist; secondary sexual features; tooth eruption, expressed in terms of skeletal and dental age. Because of individual variations which determine somatic maturation in every chronological age, the growth age presents a more adequate indicator compared to chronological age, especially when the diagnosis of a patient with altered growth pace needs to be determined, together with the orthopaedic and orthodontic treatment plan.

The Aim of this study is: 1. The assessment of dental and skeletal maturation, based on the panoramic view, hand wrist radiographs. 2. Evaluation of the relations between the real chronological age and biological one.
Method: 100 patients of 8-16 years were selected for this study (the study is still in process). All the patients had dental and skeletal abnormalities.
Results: In 56-62% of cases, the biological age does not match the chronological age. The relation between them varies from 0.53 to 0.85, showing that these two are exact indicators of determining the biological age of the patients.
Conclusions: From this study, assessment of the patient age through the hand wrists radiographs and assessment of dental age according to the permanent teeth calcification stages, is the most exact and safe method. The echography is a simple examination method, without harmful radiation, compared to radiography. It is simple and fast to apply. The assessment of the skeletal age is the most relevant indicator in the orthodontic treatment of skeletal class II and class III clinical cases, as well as other skeletal abnormalities.

126. THE PREVALENCE OF BILATERALLY POSTERIOR CROSS BITE IN 15 TO 18 YEAR OLD STUDENTS IN STRUGA

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5. Private practice Struga.

Aim: The Aim of this study was to determine prevalence of bilaterally posterior cross bite in 15 to 18 old students in Struga.
Methods: The samples were 540 students who were selected from the secondary school of Struga by the multistage random sampling method (290 girls and 250 boys). After the samples examined under disposable mirror, the bilaterally posterior cross bite diagnosed only, in centric occlusion. The data analyzed through the chi-square test with the level of significance of 5%.
Results: The **Results** showed that the prevalence of bilaterally posterior cross bite was 1.8% mouth breathing (1.3% in girls, 1,2% in boys), About 65% of this cases had mouth breathing.
Conclusion: The mouth breathing is an important factor in the prevalence of bilaterally posterior cross bite.

127. MULTIDISCIPLINARY APPROACH IN MANAGING ANODONTIA OF UPPER LATERAL INCISORS

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Introduction: In younger patients with unilateral or bilateral anodontia of upper lateral incisors there is an existing dilemma how to accomplish satisfactory esthetical and functional reconstruction **Results** before age of 18, when permanent prosthodontic treatment can not be implemented.
The Aim of this study is to evaluate the effects of multidisciplinary approach in esthetic and functional management of unilateral or bilateral anodontia of upper lateral incisors in younger patient, prior permanent reconstruction by implants or fixed prosthodontic appliances after 18 years old.
Methods: This research was conducted on five patients, both sexes, age 12-18 with unilateral/bilateral anodontia of upper lateral incisors. At the beginning all patients were treated with fixed orthodontic appliances, in order to place upper canniness back at their normal occlusal position. After positioning of upper canniness and accomplishment of proper occlusion, adhesive nonmetallic bridges (Maryland Bridges) were applied, retained by polyethylene plasmatic fibers, in order to fulfill empty spaces of missing upper lateral incisors for temporary period of time.
Results: After orthodontic treatment with fixed orthodontic appliances, satisfactory temporary replacement of missing upper lateral incisors was accomplish by adhesive nonmetallic bridges (Maryland Bridges) in all treated patients.
Conclusion: The obtained **Results** suggest that multidisciplinary approach by fixed orthodontic treatment combined with adhesive nonmetallic bridges (Maryland Bridges) has opened significant opportunities for satisfactory esthetic and functional temporary management of unilateral/bilateral anodontia of upper lateral incisors until the time for implementation of permanent prosthodontic reconstruction.

128. MANDIBULAR SYMPHYSEAL DISTRACTION: A CASE REPORT

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Introduction: Transverse mandibular deficiency is a clinical problem associated with narrow basal and dentoalveolar bone. Expansion of the mandibular arch with conventional

Methods: has limited dimensional change with questionable long-term stability. Mandibular symphyseal distraction osteotogenesis (DO) that is a biologic process of new bone formation with incremental traction, has been proposed as a solution for correction of transverse mandibular deficiencies efficiently and fastly.

Case Summary: A 20 year old female patient who had proclined and protrusive incisors, moderate crowding on upper arch and severe crowding in lower arch. Treatment plan was; space preparation for lower arch with symphyseal DO, for upper arch crowding with rapid maxillary expansion (RME) appliance. A tooth-borne custom-made mandibular symphyseal distraction device was constructed for mandibular arch using hyrax screw and bands. After cementation of device a bicortical osteotomy of the symphyseal region was performed under local anesthesia with intravenous sedation. The activation was performed by the patient four screw turns a day for a week. Ten days after activation period lower anterior arch was bonded and tooth movement into distraction site initiated while RME appliance was used for upper arch. Distraction device was removed after three months from the completion of activation phase.The crowding of upper and lower arch was resolved in 6 months after initiation of treatment, the expansion was 7 mm totally and 3,5 mm at the first promolar levels for each side. IMPA reduced from 103˚ to 98˚.

Conclusion: Mandibular symphyseal distraction osteogenesis align the dentition and correct the excessive proclination of lower teeth without the need of extraction.

129. MESH DIAGRAM PROPORTIONAL ANALYSIS ON 3-DIMENSIONAL IMAGES

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Objective: The current study presents a method for graphic proportionate analysis of the face that permits finding the individual soft tissue and skeletal norm for every patient. The method is also suited for patients who are borderline for orthognatic surgery. The objectives of this study were:

- To present a diagnostic application of a morphometric method.
- To compare accuracy of linear measurements made on CBCT derived 3D images to conventional lateral cephalography.

Methods: Twenty six orthodontic linear measurements between anatomical landmarks on 69 CBCT images of patients (35 female, 34 male; age 10-42) with Class I and no previous orthodontic treatment or severe malocclusion were analyzed with Moorrees mesh diagram. The QuickCeph Studio Software was used to generate 3D images. The linear measurements between landmarks were computed by a single observer three times and compared to anatomic dimensions using Student's *t*-test (*P* 0.05)..

Results: A total of 1794 landmarks were analyzed. The mean differences of the soft tissue landmarks were analyzed for each pair of data sets and were found to range between 1.06 and 8.07 mm and 1.26 and 7.34 mm for lateral cephalometric and 3D readings, respectively. Paired t-tests were carried out and showed that the results were not statistically significant between the mesh diagram techniques on the image capture systems *(P* >.05).

Conclusions: The types of Mesh diagram techniques used in the studied imaging modalities were comparable with one another.

130. CHILDREN ATYPICAL SWALLOWING AND ITS ELIMINATION WITH DENTAL SKELETAL SYSTEM TREATMENT

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Aim: Atypical swallowing is the functional anomaly when the infantile type swallowing is still present in adulthood and might be born as tongue anomaly, asymmetric development of maxilla and mandible, irregular dentition, or obtained by such anomalies and other factors. This study aims to assess the presence of atypical swallowing in children, its relation with dental-skeletal anomalies and its therapeutic treatment.

Methods: The anomaly identification was conducted with scholars 6-12 years old in Tirana when permanent dentition is completed and swallowing process connection with dental skeletal system is most evident. The selected 100 children were divided into two groups: 50 children with dental skeletal anomalies and 50 children without anomaly. Children with anomalies underwent clinical examination radiographic (panoramic of craniometrical) and careful removal of influencing habits and factors. Two cases were treated with orthodontic therapy conducted in the specialized clinic.

Results: Examination of 100 children showed that 17 from 50 children with dental skeletal anomalies resulted with atypical swallowing and no one from 50 children without anomalies. Specialized analysis assisted in the ap-

propriate treatment selection. The first patient with anterior open bite after 1 year orthodontic treatment, maxillary expansion and functional restoration resulted with normal swallowing and facial esthetics improvement. The second patient with right cross bite, median line deviation and anterior open bite, after 16 months treatment, had correct bite, soft tissue profile and normal swallow.

Conclusions: Early identification and treatment of atypical swallowing is important for its elimination. Atypical swallowing in children is related to dental skeletal system anomalies and good analysis, motivation, cooperation and appropriate treatment can give to children normal swallowing and beautiful smile.

131. THE MAXILLARY FIRST MOLAR IMPACTION AND MAXILLARY CANINE TRANSPOSITION IN SAME PATIENT: A CASE REPORT

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Introduction: The definition of an impacted tooth is "a tooth that can not, orwill not, eruptintoits normal functioning positions, and is, the refore, pathologicand require streatment."

Heredity is also mentioned as an etiologic factor. Hypothyroidismandhypopituitarism, febriled iseases, Down syndrome areo ther system ic factors that maycause impaction of permanent teeth. Local factors include prolonged decid uous tooth retention, mal posed tooth germs, idiopathicfactors, super numerary teeth, odontomas, cysts, abnormal eruption path, cleftlipandpalate.

Although the majority of impacted teeth are maxillaryand mandibular thirdmolars, maxillary first molarsmay be impacted. But first permanent molar impaction is rare, with prevalencerates of 0.02% forth emaxillary first molarand of lessthan 0.01% for the mandibular first molar.

Case Report: A 30-year-old female was referred to the Department of Oral and Maxillofacial Surgery, faculty of Dentistry, Mustafa Kemal University with a complaint of in theright first molarregion of themaxilla. Oral examination revealed transposition of right upper canine. The panoramic radiographs howedthat maxillary right first molarwas impacted horizontally. One of upper premolar steeth wasmissing. Further more, the canine tooth hadsub gingival profound caries. Upper canine and impacted first molar teeth were extracted.

Conclusion: In this case various treatment options were available, we useds urgical method. Orthodonti cuprighting can give excellent treatment results, but involveslong treatment periodandmay be contra-indicated in molars with widely divergingroots. Also at ourreportup per molar was impacted horizontally.

132. A RARE GIANT COMPLEX ODONTOMA WITH RADIOLOGICAL FINDINGS:CASE REPORT

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Aims: Odontoma, complextype, is an agglomerate of all the dental tissues that are characterized by normal histo differentiation but abnormal morpho differentiation producing little ornores emblance to normal tooth form. The yare usually asymptomatic but often associated wither uption disturbances. The aim of this case report is topresent a giant complex odontoma extendingto left maxillary sinus.

Methods: 24-year-male patientreferredto Marmara University, Dentistry Faculty, Department of Oral Diagnosis and Radiology with complaints of a hard mass on the left posterior alveolar bone of maxilla. Panoramic radiograph showed a non-homogen, radıo paque mass ext ending from left posterior alveolar bone to superior of maxillary sinus. To evaluatet hemass en-detail CBCT is taken. The mass was removed surgically and histo pathologic diagnosis was complex odontoma.

Conclusion: Wepresent a rarecase of complex odontoma. Although rare, recognition of the potential of complex odontomasto form in association with impacted teeth is important and the authors stres suponthe importance of routineuse of panoramic radiography forearly detection of such dentalab normalities and prevention of adverse effects.

133. EARLY COMPLICATIONS FOLLOWING IMPACTED MANDIBULAR THIRD MOLAR SURGERY: A RETROSPECTIVE STUDY

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Aim: In this study, evaluation of the early complications that occur after extraction of impacted mandibular third molars was aimed.
Methods: The study was performed on 68 patients in Ankara University Faculty of Dentistry with the extraction indication of impacted mandibular third molars. After surgical operation pain, edema, trismus, alveolitis, paresthesia on lip and tongue, bleeding, open space on wound, dysphagia were assessed. Parameters were transfered to SPSS (Statistical Package for Social Sciences) 11.5 program for statistical evaluation and percentage of distributions were obtained.
Results: 36 male and 32 female patients were included in the study. 34 right and 34 left a total of 68 impacted mandibular third molars were extracted and the complications were assessed after 3 days. 35% pain, 69% edema, 75% trismus, 4% paresthesia on lip, 1% paresthesia on tongue, 18% dysphagia, 1% bleeding and 6% alveolitis were observed.
Conclusion: Various complications after impacted mandibular third molar extraction may occur, dentists should have enough knowledge and experience about it.

134. RETROMOLAR FORAMEN AND ARTERY: REPORT OF TWO CASES

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Introduction: As an unusual anatomic variation of mandible, the retromolar foramen is the opening of the retromolar canal found in the retromolar trigon. The neurovascular bundle passing through this canal can cause to excessive bleeding or postoperative anesthesia if injured during surgery. Also this canal may be possible route for spread of tumor or infection and may explain why the failure of mandibular block anesthesia or postoperative sensitivity alterations in supply area of the buccal nerve.
Case Summary: Two female patients referred to our department with a pain complaint of unerupted mandibular third molar. After oral examination, the patients were undergone third molar surgical extraction under local anesthesia. When reflected mucoperiosteal flap, we encountered a foramen artery that is located in retromolar trigon posterior to third molar.
Conclusion: Oral surgeons need to be aware of this variant and its possible complications, which may occur during the administration of anesthesia and surgical procedures in retromolar region.

135. PALATAL BONE DESTRUCTION DUE TO CHRONIC MAXILLARY SINUSITIS BY DENTAL ORIGIN

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Summary: Chronic maxillary sinusitis is an inflammation of paranasale cavities originated from bacteria's, fungies or viruses that can develop in maxillary sinus. Compared with others paranasal cavities, maxillary sinus is more affected influenced by dentogene infections or nasal cavity. Based on studies, aproximately 10-12 % of all infections of maxillary sinus have dentogene origin included periapical granulomas, cystis radicularis, endodontic treatment and gangrenous posterior teth extractions.
Case Report: The patient Z.K 31 years old came in a Clinic of Oral and Maxillofacial Surgery due to his complaint for extraction of gangrenous teeth in upper and in lower jaw. After clinical and radiological examination we concluded that maxillary sinusitis has progressed in a very large mass and caused a destruction of palatal bone. In his first visit we suspected for malign process-that is why biopsy has been done with the result-CHRONIC INFLAMATION.After that has been extracted all the gangrenous teeth followed by Caldwel-Luc procedure of sinusitis treatment. During his hospitalization patient was treated with antibiotic therapy and subtotal dental prostheses was done to prevent reinfection due to oro-antral communication. Two months later the oro -antral communication was closed with palatal flap of the other side

136. DENTAL IMPLANTS IN PATIENTS WITH ORAL MUCOSAL ALTERATIONS

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Objective/Aim: To determine whether a series of diseases of the oral mucosa - Sjögren syndrome, ectodermal dysplasia, epidermolysis bullosa and lichen planus - reduce the survival rate of dental implants.
Method: A Medline search was carried out using the key words: "Sjögren syndrome", "ectodermal dysplasia", "epidermolysis bullosa", "lichen planus" and "dental implants", including those publications involving clinical series comprising more than one patient with the mentioned disorders and treated with dental implants, in the last 10 years.
Results: The study included three articles involving patients with Sjögren syndrome subjected to dental implant treatment, representing a total of 12 patients and 86 implants, with a mean pondered success rate of 86.33%.

As regards ectodermal dysplasia, we included 14 articles, of which 11 corresponded to clinical series, two were reviews and one constituted a survey of dental professionals. The percentage success rate of the implants varied between 35.7-100%. In relation to epidermolysis bullosa, we included 6 articles corresponding to clinical series, with a total of 16 patients and 92 implants, and a success rate between 75-100%. In the case of oral lichen planus we found only two articles corresponding to clinical case series, with a total of 5 patients and 14 implants, and an implant survival rate of 100%.

Conclusions: Based on our review of the literature, dental implant rehabilitation in patients of this kind is seen to be a valid treatment option, with a high percentage success rate. Long-term patient follow-up is essential in order to periodically monitor the condition of the disease and of the implants

137. ANTIBIOTIC PROPHYLAXIS TO PREVENT LOCAL INFECTION IN ORAL SURGERY

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Antibiotics have a well-documented efficacy in the treatment of established infections and as prophylactic agents in medically compromised patients. However, the systematic administration of antibiotics to prevent local infections in fit patients is much more controversial.

The Aim of this paper is to reflect on the justification for prophylactic usage of antibiotics to prevent wound infection and to reason out the most appropriate antibiotic guidelines taking into account available scientific data and studies by other authors. Numerous clinical trials question the efficacy of antibiotics in preventing wound infection. While some studies establish that antibiotics reduce the incidence of postoperative infections, others compare their efficacy to that of placebo. Thus, scientific literature suggests that every oral surgical intervention is not tributary of systematic antibiotic prophylaxis to prevent local infections. Intrinsic surgical risk factors and the patient's individual circumstances must be taken into account. Even though the efficacy of other antibiotics cannot be ruled out due to our limited comprehension of the bacteriologic interrelations intervening in the pathogenesis of post extraction local infection, the amoxicillin- clavulanic acid combination theoretically covers the complete odontogenic bacterial spectrum in Montenegro.

Methodology:

Rewiev/Analysis of the studied bibliography

Conclusions:

1. The indications of antibiotic prophylaxis in Oral Surgery have not yet clearly been established on the basis of scientific evidence. More studies are needed to this effect.
2. The amoxicillin-clavulanic acid combination theoretically covers the entire bacterial spectrum of the odontogenic infection in Montenegro. However, the lack of knowledge about the pathogenesis and bacterial interrelationships leading to postextraction local infection does not permit the ruling out of the value of other antibiotics.
3. When antibiotic prophylaxis is indicated, a high-dose preoperatory administration should be prescribed, and its duration should not exceed the first 24 postoperative hours.
4. Special attention should be payed to other local antiinfectious measures that reduce surgical wound infection risk while the cicatrisation period lasts.

138. TREATMENT OF HYPERPLASTIC LESION WITH DIODE LASER 980 NM: CASE REPORT

Elton Gjini, Alketa Qafmolla, Merita Bardhoshi.

Introduction: Hyperplastic oral mucosa may arise through chronic irritation. Poor denture design may also cause mucosal hyperplasia. The treatment of such lesion is surgical The surgery may be performed by scalpel or laser. Different types of laser can be used like**:**Er:YAG laser, carbondioxide laser, diode laser.

Case report: We report our experience in the treatment of a clinical case with hyperplastic lesion in the Department of oral Surgery in University Dental School Tirane, Albania with diode laser 980 nm.The patient is treated as outpatient under infiltration anesthesia 2 % 1cc and laser parameter: cw,3 w, optical fiber 300 micrometer. No sutures were required. The patient referred no pain, no swelling after surgery. The patient is follow-up after one month, six month and one year after surgery for evaluation of wound healing, scar formation, consistence of gingiva.

Conclusion: Treatment of hyperplastic lesion with diode laser is with beneficial effects. The wound healed without complications and postoperative period is comfortable for the patient. Laser surgery is well accepted by the patient

139. HEMISECTION ON MANDIBULAR MOLARS

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Introduction: Advances in dentistry, as well as the increased desire of patients to maintain their dentition, have lead to treatment of teeth that once would have been removed. Hemisection is the procedure in which multi-rooted tooth is surgically divided into two half through the bifurcation of

tooth buccolingually. The diseased half of the crown and root will be removed and the other half will be retained. Hemisection of a mandibular molar may be a suitable treatment option when the decay is restricted to one root and the other root is healthy.
Methods: We present our clinical experience about of the cases of hemisection on mandibular molars (20 cases, 15 of them had endodontic problems and the others periodontal problem). We used a fifth-stage technique of hemisection, which is presented in detail: (1) endodontic treatment of a preserved root; (2) crown reconstruction; (3) separation of the roots; (4) diseased root extraction; (5) furcation region smooth and occlusal modification.
Results: In all the cases of root resection, compromised molars were treated successfully not only in short terms (without mobility of the remained root, without edeme, little pain); but also and in long terms (high stability in occlusal function). The keys to long term success appear to be thorough diagnosis, selection of patients with good oral hygiene and careful surgical and restorative management.
Conclusion: Hemisection is a successful procedure treating compromised multi-rooted teeth and conserving teeth when proper case selection is performed. Hemisection may be a suitable alternative to extraction and implant therapy. It is a time saving procedure and with a low cost.

140. HEMISECTION, IMPERATIVE METHODS: FOR CONSERVATION OF THE TOOTH

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I.P.SH "Lege Artis" - Gostivare
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Introduction: Hemisection of the teeth is a surgical intervention in which is made the removal of a tooth root of two and more roots, which has been impossible a proper treatment endodontic but the other root remains well treated in the the threshold of the jaw alveolus and will serve for prosthetic rehabilitation. Hemisection is especially indicated when we must safe the tooth who will serve to the patient for a fixed prosthetic work, but also as the only biological organ.
Aim: It is the presentation of cases where is taken out the medial root of mandible molar.
Methods: The cases are of the two sexes, of different ages while the teeth have been the mandible molar, in all cases are made surgical interventions, after analyzing the roentgen where very carefully without trauma is cut(separation) the coronary part and the roots between very carefully to don't hurt the intradental septum. The removal of the root is made after the separation, is well done the alveolus curettage and the same is healed for secundum. In all cases we removed the medial root of the molar.
Result: After 4-6 weeks after the extraction is done are made checks of the remaining root and above it is placed solo ceramic crown or a bridge.
Discussion: Based on the clinicopathological-objective data and the roentgen results are successful.
Conclusion: This method is easy and the intervention can be made by any dentist. At the same time we safe the teeth (one root) that we use as bridge holder or solo crown, also we have functional, biological, esthetic safe of the tooth as an organ.

141. PSYCHOSOCIAL ASPECT OF ORTHOGNATIC SURGERY IN ALBANIAN PATIENTS (POSTER PRESENTATION)

Isufi Irina*, Isufi Algen, Ramazan Isufi

The Aim of this study is to design how important is the psychosocial evaluation in patient who underwent orthognatic surgery, which are the demands of Albanian patients from this surgery and how much did the surgical treatment improve their life.
Methods: For this study we took in consideration 20 patient who underwent orthognatic in the OMF department near "Mother Theresa" hospital center. Patients charts, preoperative consultations, questionnaire before and after surgery and esthetic evaluation from photos before and after surgery have been used for this study.
Results: From this study result that most of the patients require orthognatic surgery for esthetic reasons.Also from the study we have positive **Results** in the psychosocial aspect.Patients refer an improvement in their life and the social status with.
Conclusion:: From the data collected in our patients we seen a positive impact in individual assessing and also from the society around. We recommend a follow up and a psychological support until a satisfactory post operative recovery for this patients.

142. THE COMBINED TREATMENT OF CHRONIC PAINS DUE TO TEMPORO-MANDIBULAR DYSFUNCTION SYNDROME WITH AMITRIPTYLINE

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Aims: the use of amitriptyline for the reduction of chronic pain caused by the temporo-mandibular dysfuntion syndrome. The dysfunction of the temporo-mandibular join is a general term for a group of clinical symptoms which are related to the masticator muscles, temporo-mandibular join and/or neighbor structures. The main clinical symptoms are the pains of some of the masticator muscles, the pain of the articulation itself and restriction of the mouth opening combined

with a click. The pain is a result of the dysfunction of the join and The Aim of the treatment is its removal. These days there are many ways and techniques for the pain removal, but The Aim of this study is the treatment of the patients with severe pains (in attack) with amitriptyline.

Methods: two groups with patients were taken into analyses; one group was treated with non steroids anti-inflammatory drugs (ketoprofen) and low doses of amitriptyline (25mg), while the other group were treated only with the non steroid anti-inflammatory drug. The treatment was continued for 2 weeks. The degree of pain was evaluated with VAS (visual analogue scale). The data were collected before, during and after treatment.

Results: from the data analyzed so far, the reduction of pain in the first group (treated with amitriptyline) was around 70%, while the pain was reduced around 30% in the second group. This difference was considered a significant one.

Conclusions: from these data, also from the data reported in the literature, we may conclude that amitriptyline may be used as an additional treatment of pain in the TMDS. This impact should also consider the psyco-social problems of the patients.

143. INTRUSION OF PRIMARY TOOTH IN TO PERMANENT TOOTH - CASE REPORT

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Introduction: Dental traumas in early childhood are followed by development disorders of permanent dentition, based on topographic relationship between roots of primary dentition and follicles of permanent dentition.

Aim: of this presentation is to present development disorders of permanent dentition tooth, as a result of dental trauma in early childhood, through presentation of case presentation of intruded primary tooth into the crown of permanent tooth.

Report: Patient A.H., 23 years of age female, has came for visit in Department of Oral Surgery in UDCCK in Prishtina, complaining on ache and swelling of frontal region of lower jaw. History taking has confirmed trauma on her fifth years of age. After clinical and radiological examination, a radicular cyst of tooth 41 has been diagnosed. Partial discoloration and inclination of the crown, where suspect able for tooth development disorders.

Results: After collegiums consultations, endodontic treatment, apical resection of the root and cystectomia were initially done. Afterwards a prosthetic rehabilitation was done by Porcelain fused to metal crown. Part of the crown (including material from discolored and non-discolored crown) was sent for patho-histology.

Microscopic analysis confirms initial suspections, as "Cystis radicularis traumatic" and partial presence of primary tooth intruded into a permanent crown of the tooth 41.

Conclusions: ental traumas of primary teeth, will directly impact on normal development of permanent dentition.

144. RE CONSTRUCTION WITH TRANSPLANT IN MAJOR BONE ILIAKE MARROW DAMAGE FROM THE BULLET OF A PISTOL, WHOSE TRAJECTORY ENDS WITH THE EMERGENCE OF LEA DEFECATE.

Lozana Binjaku, Alma Teliti

Introduction: Replacement of filling bone defects created by fire weapons with bone from the peaks generated by weapons fire from the ridges iliake bone and fixing them titanium plate in order to ensure continuity of bone uniformity and to facilitate orthopedic replacements blocks of missing teeth. Identify a strange trajectory of bullet without a problem digestive organs where it passes until it comes up with defecate.

Case report: A 23 year old male, presented Traumatic Military Hospital - Albania, in conscious state, with diffuse bleeding from the bottom of the tongue. Noticed the bullet entry holes before opertures nasal region. No other damage extra oral put. Intraoral observed lack maxillae distance right. The bullet passed from the maxilla - tongue - and is inserted into the esophagus, stomach and is stuck in the stomach, digestive tract without a problem. Sutura bleeding mattress was stopped with tongue creating the configuration to its fullest. The patient was trakeostomizua. The patient underwent multiple CT examinations of head, abdomen X-ray, angio X-ray, CT – torax, fibrogastroscopy.

Results: The case was treated. Maxillary injury was treated with transplantation of bone iliake in place of the fault which was modeled according to the form that will replace, and fixing her with titanium plates.Provided full coverage with soft tissue of transplants. The case was followed until the bullet came out with defaces after 10 days.

Conclusion: Crista iliake due to the low absorption is most favorable for transplantation. God makes miracle by referring the bullet out without other problems.

145. CONSERVATIVE TREATMENT OF CONDYLE FRACTURE IN ADULT: A CASE REPORT

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Introduction: The proportion of condylar fractures among all mandibular fractures is between 17.5% and 52%. While some studies report an equal distribution between genders, a 9:1 male predominance has been reported. A review of the literature on the several principles of medical care of condylar fractures confirms that the treatment is still controversial especially for the treatment of extracapsular fenomens. In this study we used a conservative treatment aproach as using intermaksiller fixation (IMF) technique.
Case summary: In this case report, 32 year-old female patient is presented to an oral diagnosis and radiology clinic with right mandibular condylar fracture. Then the patient was referred to an oral and maxillofacial surgery clinic with painful facial swelling localized over the right condylar region, limited mouth-opening and mandibular deviation to the right. She was treated in that clinic with using IMF for almost three weeks and then it was removed. Four months later, clinical and radiologic examination revealed uneventful healing with reduction of the condylar head and remodeling of the condylar process following conservative treatment inwhich we used the IMF technique.
Conclusion: For a long time, the conservative functional treatment of intra capsular condylar fractures was a preeminent philosophy. On the other hand, if an adequate occlusion and function can be obtained; the intermaxillary fixation (IMF) can be used for a temporary while for both intra and extracapsular, and undisplaced fractured condyle treatments.

146. CONE BEAM CT EVALUATION OF BISPHOSPHONATE RELATED OSTEONECROSIS: A REPORT OF TWO CASES

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Introduction: Jawbone osteonecrosis (bisphosphonate-related osteonecrosis of the jaw [BRONJ]) is a significant complication of bisphosphonate treatment. Oral surgical procedures, including dental implant placement, are known to be the most relevant risk factors for BRONJ development in cancer patients taking intravenous bisphosphonates. **The Aim** of this study is to describe two cases of BRONJ and discuss the imaging modalities and differential diagnosis for this condition.
Case Summary: In addition to clinical examination the patients (48y female and 59y male) were imaged using panoramic radiography, and cone beam computed tomography (CBCT) (Newton 3G Quantitative Radiology S.R.L. Verona, Italy). The panoramic radiographies of the patients who were treated with high dose of bisphosphonate, showed radiolucent lesions in the mandible. The lesions were lytic lesions which were located both close to the alveolar process and basal part of the mandible. In order to examine in detail CBCT was performed. CBCT showed lytic lesions in detail. Moreover 48yr female patient figured out the loss of the implant due to bisphosphonate-related osteonecrosis.
Conclusion: The patients were treated surgically with curettage of the lytic lesions and high dose antibiotic together with non-steroidal anti-inflammatory medications. Albeit of uncommon occurrence, dental specialists should be aware of this disease.

147. SUBMUCOSAL VESTIBULOPLASTY (RIDGE EXTENSION) OF UPPER JAW – OBWEGESER TECHNIQUE - CASE REPORT

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Summary: After the loss of a tooth, the bone no longer receives chewing forces at the spot where the tooth was lost, and the alveolar ridge begins to regress. The alvoelar ridge is crucial to retention, stability and support of the denture.If the alveolar morphology lends itself to a soft tissue, a vestibuloplasty procedure will often provide satisfactory improvement in stability.
Case Report: The Patient L.P. 36 years old came in our

Department, with the recommendation of prosthodontist, due to her complaint for unsatisfactory denture retention. The patient suffered from edentulous jaw since she was 28 y.o.,since than she wear a denture for upper jaw. Previous time she underwent a surgical treatment for fibromatous hyperplasion of alveolar ridge which worsen the situation.

Clinical and radiographic examination revealed an edentulous atrophied maxilla, but with muscles attached closed to the alvolar crest.

Prior to the surgical treatment, the prosthodontist did a flang extension of the denture,after that we decided for surgical alternativ treating the atrophy of alveolar. Among the several modern surgical methods that we offer in our clinic to treat the atrophy, poor socio-economic situation of the patient has influenced the decision for surgical treatment, finally we decided for Vestibuloplasty according Obwegeser technique.

148. USING OF BONE GRAFTING MATERIALS AFTER CYSTECTOMY

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Introduction: The most frequent cyst in the maxillofacial region is the radicular cyst, also called periapical or apical cyst. Around 60% of all jaz cysts are radicular or residual cysts. The radicular cyst is classified as inflammatory, because in the majority of cases it is a consequence to pulpal necrosis.

Aim: The purpose of our case report was to show advantages of bone grafting materials using as a bone replacement after cystectomy.

Methods: This case repor shows the surgical treatment of the large radicular cyst in a 34 years old male. The cyst is a result to pulpal necrosis following caries of the second upper left incisor. The roots of upper left central incisor and upper left canin were in the cyst's cavity. The surgical procedure was enucleation of the radicular cyst and application of bone graft material (novocor + collagen membrane) in the mone defect. The patient was examined by X rays after 3 and 6 months after surgery.

Results: The **Results** shows that the using of bone grafts can be successesfully used in a treatment of odontogenically caused bone defects.

Conclusion:: The fundamental advantage of bone grafts is slow biodegradation. Which ensures a more suitable area for the apposition of a new bone in the defect.

149 ANTIBIOTIC PRESCRIBING PRACTICES BY THE DENTISTS OF KOSOVA CONCERNING THE PROPHYLAXIS OF BACTERIAL ENDOCARDITIS

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Introduction: Infective endocarditis is a serious infection with a high mortality rate that is caused by bacteremia in individuals suffering from certain cardiac conditions. The guidelines regarding antibiotic prophylaxis of bacterial endocarditis have changed with a significant reduction in the number of situations in which they are indicated to be administered.

Aim of study: The Aim of our study was to gain knowledge about the antibiotic prescribing practices by the dentists of Kosova concerning the prophylaxis of bacterial endocarditis and whether they correspond to the contemporary guidelines.

Methods: This is a cross-sectional study based on a survey delivered to 200 dentists and oral surgeons in Kosova. After data collection and their quantitative and qualitative control, they were analyzed using the statistical program InStat 3. For parametric data, we have used the T-test and One Way Anova and Turkey test for multiple comparison, whereas for the non-parametric data we have used the X2-test.

Results: The most frequently prescribed antibiotic for prophylactic purposes is Amoxicillin (47.6%). The category of patients in which antibiotic prophylaxis before invasive procedures resulted to be most frequently administered was "patients with previous history of bacterial endocarditis" (77.7%). 38.4% of the surveyed dentists have reported that they administer antibiotcs for prophylactic purposes before and after the intervention, 32.6% before the intervention and 29.1% after the intervention.

Conclusions: There is confusion and lack of information among the dentists in Kosovo about the contemporary guidelines concerning antibiotic prophylaxis of bacterial endocarditis.

150. MOST FREQUENT LOCALIZATION OF PERIAPICAL PROCESSES THAT REQUIRE ORAL-SURGICAL TREATMENT

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POSTER PRESENTATIONS

Introduction: Bacteria play the major role in the etiology of periapical lesion formation, resulting in bone resorption which is an active process carried out by osteoclasts. Bacteria can gain access to the dental pulp through the crown or root surfaces in association with processes such as caries, periodontal disease, or trauma. A group of microorganisms colonizing the normally sterile root canal space can cause pulp necrosis and inflammation in the surrounding bone. Teeth with apical periodontitis are highly prevalent amongst adults. The majority of apical periodontal lesions are located in previously root-filled teeth.

Aim: Purpose of this work is to discover the most common areas of occurrence for periapical lesions and their origin.

Method: At the University clinic for oral surgery in Skopje, a total of 30 patients of both sexes, all over 14 years with diagnosed chronic periapical lesions were examined. In all of them were made retroalveolar x-rays and surgical apicoectomy with ortho filling was performed. Data we obtained were presented in percentage values.

Results: In most of the participants, periapical lesions were localized in the frontal region of the maxilla, more dominated by female and aged between the third and fourth decade. Most common cause for their occurrence (85%) is inadequate conservative and endodontic treatment which requires a surgical procedure. Rests of them (10%) were caused by trauma and only 5% with unknown etiology.

Conclusion: We found a large proportion of endodontically treated teeth with apical periodontitis and a significant relationship between the quality of endodontic filling and the prevalence of periapical lesions. This suggests that it is necessary to improve the quality of endodontic treatment in order to reduce the incidence and prevalence of apical periodontitis.

151. STUDY OVER THE OCCURRENCE OF BRUXISM IN "ALDENT" UNIVERSITY DENTISTRY STUDENTS.

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Aim: This study aims to show the frequency of bruixism occurrence in the 18-22 years old students of "Aldent" University, its most common causes and treatment options.

Methods: In "Aldent" universitary clinic, a total of 200 students were subjected to examinations. Data was collected from intra-extra oral clinical examinations as well as from a detailed history, with a special focus in their lifestyle and possible vices. The treatment method was thought to rely on the minimization or elimination of predisposition factors. In cases of habitual bruxism the chosen treatment method was the use of resin splints.

Results: The presence of bruxism was detected in 40 out of 200 students. In 50% of the cases, stress and anxiety were the most probable causes, whereas in 42% of the cases, the possible cause is thought to relate to their lifestyle: excessive consumption of coffee and smoking. In 8% of the cases, the cause is assessed to be the presence of allergic factors.

In most cases, the treatment was carried out through the elimination or reduction of vices and through various physical activities to reduce anxiety.

In 50 % of the patients where the bruxism was habitual, elastic resin splints were used to prevent further dental abrasion and to relax chewing muscles.

Conclusion: Bruxism is a pathology that occurs in youngsters and its early diagnosis and treatment, minimizes its consequences.

152. SURGICAL TREATMENT OF AMELOBLASTOMA (CASE REPORT)

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Ameloblastoma is a rare, benign tumor of odontogenic epithelium (ameloblasts, or outside portion, of the teeth during development) much more commonly appearing in the lower jaw than the upper jaw. While these tumors are rarely malignant or metastatic and progress slowly, the resulting lesions can cause severe abnormalities of the face and jaw.

There are three main clinical subtypes of ameloblastoma: unicystic, multicystic, peripheral.Ameloblastomas are often associated with the presence of unerupted teeth. Symptoms include painless swelling, facial deformity if severe enough, pain if the swelling impinges on other structures, loose teeth, ulcers, and periodontal (gum) disease. Ameloblastoma is tentatively diagnosed through radiographic examination and must be confirmed by histological examination (e.g., biopsy). Radiographically, it appears as a lucency in the bone of varying size and features sometimes it is a single, well-demarcated lesion whereas it often demonstrates as a multiloculated "soap bubble" appearance. While chemotherapy, radiation therapy, curettage and liquid nitrogen have been effective in some cases of ameloblastoma, surgical resection or enucleation remains the most definitive treatment for this condition.

Aim is to schou one case of ameloblastoma in yang pacient with facial deformity who has painless swelilling over 5 years in right said of mandibulla.. Radiographically it appears a lucency in the bone with well demarcated lesion between first premolar and tirdh molar.

After enucleation and pathohistological examination

we confirm that was a ameloblastoma.After operation recovery of pacient goy well end after two years radiographic exzamination show no recidive in that region.

Concluzion: Follow up is important, because 50% of all recurrences occur within 5 years postoperatively. Recurrence within a bone graft does occur, but is less common.. The recurrences in these cases seem to stem from the soft tissues, especially the adjacent periosteum.

153. THE USE OF DIODE LASER IN DENTISTRY – TWO CASES REPORT

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Introduction: We present our clinical cases, the use of diode laser in patients with gingival hypertrophy and lower semi impact third molar.

An indication for application of our diode laser as in our cases is:

At first – periodontal surgery, gingival depigmentation and decontamination and curettage of the sulcus,

In the other case, in the area of the third molar, we made operculectomy, circumcision and we got excellent hemostasis.

Methods: The patient, a 64 year old man, was a good general health for his age. He presented with a conventional bridge in the maxilla supported by natural abutments and gingival frontal upper hypertrophy. Since the bridge was removed, used the diode laser we made a new gingival contour, following only contact anesthetic. The other patients, a 23 year old woman, right lower semi impact third molar where we make operculectomy with diode laser, like the previous case only with contact anesthetic.

Conclusions: The diode laser as a modern therapeutic method helped us to a very fast and simple way, elegant, clean – without bleeding, and in a short time period for treatment and resolution of such situations.

Source of funding: PHO "Dent Estet" – Shtip, F.Y.R.O.M.

154. THE CALCIUM PHOSPHATE CRYSTAL FORMS OF THE BONE

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Introduction: Calcium ortho-phosphates are important compounds of biological systems, formating alignment of bone. These compounds are materialized in various forms, but for the systems mentioned the most important are hydroxylapatite (HAP) $Ca_{10}(PO_4)_6(OH)_2$, monetite (M) CaHPO4, monoclinic, and brushite (B) $CaHPO_4 \bullet 2H_2O$, threeclinic.

The Aim of this study was to assess the structure of solid calcium phosphate compounds of bone in case of normal jaw and osteoporotic jaw bone.

Methods: Crystalographic forms of calcium phosphate were determined in samples of human jaw-bone applying X-ray diffraction technique (Crystalloflex difractometer D-500, Siemens). The experimental bone samples originated from osteoporotic jaw-bone and control samples were from not-osteoporotic bone.

Results: Hydroxiapatite was the only one phase in control bone samples. In experimental bone samples, hydroxiapatite phase was registered, as well as monetite and brushite.

Conclusion:. The data indicated that the changes of crystallographic forms of calcium phosphate in physiologic system were balanced to possibility of change of inorganic chemical system.

155. CONDYLAR HYPOPLASIA AND TEMPORO-MANDIBULAR DYSFUNCTION IN OSTEOPOROSIS – CASE REPORT

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Introduction. Osteoporosis is systemic disease that damages upper and a lower jaws, as well as temporo-mandibular joints. Osteoporosis could appealed to changes of condyle.

The Aim of this study is to show condylar changes in osteoporotic temporo-mandibular joint of a patient with systemic osteoporosis.**Case report.** Patient PI, aged 54 yrs., was diagnosed to osteoporosis. His systemic osteoporosis was confirmed by densitometry (DPX-L, Lunar scanner). T score was -2.5 g/cm3. Radiographs of oro-facial system and temporo-mandibular joint of a patient were provided using radiographic method of 3D visualization of the lower segment of cranium and temporo-mandibular joint (Scanora 3D). Radiographs

were made in axial, coronal and sagittal reformatted images. A patient was complaining to subjective difficulties and pain in temporo-mandibular joint on the right side, as well as temporary pains in both of temporo-mandibular joints. On radiographs were seen undersized appearances of right mandibular condyle. On the basis of an analysis of radiographs asymmetry of condyles was observed. On the basis of oral inspection and objective findings in his mouth were confirmed crossbite, open bite and deviation of mandible during opening towards defected side. **Conclusion:**. Osteoporosis ruins condyles of temporomandibular joints too, resulting in oro-facial system dysfunction. Fabrication of dental prosthesis in cases of this kind is suspended seeking for complex approach in therapy.

156. THE FREQUENCE OF WISDOM TEETH AMONG IMPACTET TEETH OF PATIENTS FROM TETOVA AND ITS ENVIRONS

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Aim: of this study is to determine the frequency of winsdom teeth among impactet teeth according sex and jaws by patients with permanent dentitition in population of Tetova and its environs.
The clinic material is compaund from 256 examinated patients in Department for Oral Surgery- Health Institution in tetova during 2010 and 2011 year. Patients were in age from 17 to 70 year old.
The examination has ben done by sonde and miror for dentistry in condition of natural light. There were observed and analysed Panoramex X-ray of each patients, and was determined the impacted teeth.
Our results showed that higher per cent of impacted teeth we have by third mandibular molars with 12(82,82%) of cases, followed by third molars of maxilla with 23(8,98%), maxillar canines with 14(5,47%), canines of mandible with 4(1,56%), and second premolars with 3(1,17%) cases.
According to the geting results, their analyses and statistical elaboration we can conclude that:
In our study could be observed domination of impaction by age group 20-30 year. Panoramex X-ray plays the main role by diagnostification and planification of the intervention. Surgical treatment is the dominant method of therapy by impaction of winsdom teeth.

157. UNUSUAL IMPACTED MANDIBULAR CANINE TOOTH WITH DENTIGEROUS CYST: A CASE REPORT

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Introduction: Although the maxillary permanent canine is frequently misplaced, misplacement of the mandibular canine is a comparatively rare event. A dentigerous cyst is a type of an odontogenic cyst associated with the crown of an impacted, embedded or unerupted tooth. One of the more difficult situations dealt with by orthodontists is the treatment of impacted maxillary canines.
Case Summary: In this article, we report a case of an impacted mandibular canine in an unusual position with dentigerous cyst. After a consultation of the patient with an orthodontist, the patient was referred to an oral surgeon; the cyst and impacted canine was removed surgically by an oral and maxillofacial surgeon. The surgical material was confirmed histologically as a dentigerous cyst. The patient is now under regular control period.
Conclusion: It is important to perform radiological examination in cases of unerupted tooth. A case of unusual impacted mandibular canine associated with a dentigerous cyst that required a particular surgical approach for removal it.

158. COMPARATIVE ANALYSIS BETWEEN LASER AND CLASSICAL METHODS: OF FRENULACTOMY

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Introduction: There is a different forms of wrinkles of the mucosa in the mouth. Some of them are only compsed by mucosa, some are composed by mucosa and connective tissue, and the others forms cicatrix. In these groups are included frenulum labii superior and inferior, and premolar and molar plicas in maxilla and mandibula.**Aim:** The laser ensures to the dentist a possibility for a precise, gentle and effective treatment.
Methods: Besides of conventional method wich gives good results, nowdays the uses of laser energy for removing the frenulum is a very actual, sophisticated and progressive method. In our cases we were using laser with optical handpiece, model 02, the wave-length was 2940 nm. Er:YAG laser has a pulse in a solid consistence, causing highenergetic concentaeted light wich can

cause a serious demage if it is used unpropperely.In the conventional technic we use scalpel (blood in a operating area) and we must use steaches. By using the laser we avoid that.

Results: Patients where we esed the laser for theire treatment had bigger percent of acceptation compared with patients where ze used classical methods, especially childrens.

Conclusion: By using the laser for the treatment of frenulum, the patients feel more comfortable, compared with conventional methods.

159. REMOVAL OF FORGOTTEN SILK SUTURE AFTER TEETH EXTRACTION WITH COMPLICATION - A CASE REPORT

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Introduction: Resorbable or non-resorbable sutures are generally used after dentoalveolar surgery, the removal of impacted third molar teeth or teeth extractions with complications. However, postoperative information that must be given to patient after operations may be incomplete occasionally.

Case Summary: In this case, 6 months before coming to our clinic, patient had dentoalveolar surgery in considerations of the teeth removal. After extraction wound closure has been provided by 3/0 silk suture. In the 6 months postoperative period suture wasn`t removed and was sink deeply into the alveolar mucosa. The reason of the patient to come our clinic was asemptomatic color change on the top of the alveolar crest of the mandible. The decayed suture with conjoint alveolar mucosa was excised under local anesthesia. Postoperative period of 6 months was uneventful. **Conclusion:** Dentists should be more conscious and thoughtful about giving postoperative information to their patients.

160. TREATMENT OF VASCULAR MALFORMATIONS OF THE LOWER LIP USING A ND: YAG LASER (A CASE REPORT)

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In the last 20 years, Nd: YAG laser is used with a wide range of indications in dentistry.Thanks to its thermo-coagulating effect, he was the first laser used in dental practice for surgical procedures.

Absorption of Nd: YAG laser light in water is approximately 10,000 times smaller than that of Er: YAG laser.Because of that,it can not be used for the ablation of hard dental tissues.But in soft tissues, the depth of penetration of Nd: YAG laser light tissue is optimal for cutting and for simultaneous coagulation.Nd: YAG wavelength is mainly absorbed by hemoglobin, melanin and other organic compounds.It acting on the tissue through photothermal efect.

Aim: Our goal is to show successful treatment with Nd: YAG laser as a modern solution for the treatment of vascular malformations of the lower lip.

Case summary: In the Clinic of Oral Surgery in Skopje we treated patient aged 14 years with vascular malformation of the lower lip, which has appeared on 11 months of age after blow (traumatic etiology). From history we learned that over time the change increases so make the patient comfortable aesthetic and also unconsciously traumatize, which appears bleeding.

We used the Nd: YAG laser treatment of vascular malformations of the lower lip and we used a fiber optic tip diameter of 300 µm and the following parameters: 5 W and 100 Hz.

Conclusion: Thanks to its coagulating and sterilizing effect (photocoagulation), procedures on soft tissue is performed easily and efficiently with Nd: YAG laser than with conventional techniques. So use of Nd: YAG laser,it is remove the negative consequences of conventional techniques and the absence of bleeding, preserve the aesthetic appearance of the patient and avoids the occurrence of scar tissue.

161. DRY SOCKET INCIDENTS DURING THE PERIOD OF 1999-2004 IN KOSOVA

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Background: Dry socket is a postoperative complication that occurs after adental extraction and has been defined as an inflammation of the alveolus. If this inflammation should surpass the alveolar walls, it would result in a located osteitis.

Aim: The objective of this study was to determine the prevalence, and risk factors of dry socket that accured during period after war period 1999-2004 in Kosova.

Methods: The evidence that is held in the University Clinic of Dentistry, Departmen of Oral Surgery in Prishtina has been analyzed throughout the postwar period to determine the frequency of dry socket;

The distribution of dry socket cases has been counted from the evidence that we have at this department and they are: (1) the percentage of dry socket from the number of all extractions (2) the percentage of dry socket

after extraction of the third molars 3) the distribution of these two rates by gender and age.

Results: At this period 1999 – 2004 were registered 16297 dental extraction. Average of 2716 teeth extracted and were treated on average 23 of dry socket. The average for dry socket in this period was 0.85%.

From 201 case of dry socket, 62.2% were female, while 37.8% male. There was significant difference by sex (Chitesti = 11.95, p <0.01), therefore we can conclude that dry socket was more frequent in females than in males

The largest number of patients with dry socket were 20-29 years age, 42.8% of all cases.

In our clinical from 201 cases,4% dry socket were dry socket of the molar teeth of third maxillar molar. With Chi test we have significant statistical correlation (p <0.05)

Conclusion: Based on these results the average for dry socket in this period was 0.85%. therefore we can conclude that dry socket is in normal margins compared the contemporary literature.

162. OSTEOMYELITIS OF THE SYMPHISIS: REPORT OF A CASE

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Introduction: Osteomyelitis, more properly termed necrosis of the jaw is an acute or chronic inflammatory process that can involve cortical and trabecular aspects of bone or bone marrow. Osteomyelitis is also exceedingly dangerous condition and demends infinite patience in its treatment. Diagnosis is based on the presence of painful sequestra and suppurative areas of tooth-bearing jaw bone unresponsive to debridement and conservative therapy. The mandible is more commonly involved than the maxilla.

Case Report: This report is deal with a 65 year old male patient who has hypertension, diabetes mellitus and hyperlipidemia as a systemical disorders. He referred to a dental clinic with the complaint of mobility because of periodontal disorder in his mandible anterior teeth. Teeth were extracted and immediate implants were applied. After two weeks, the implants were removed because of the pain. 2 months after the removal of the implants, fistula formation was observed in the region of symphisis. Periapical radiography, panoramic radiography and cone beam computed tomography was obtained. Under antibiotic theraphy patient was operated.

Conclusion: Special attention must be paid by the clinicians for asepsis during the operation. Also they should be aware of the lingering treatment protocols.

163. MULTIDISCIPLINARY APPROACH IN HIPERODONTION TREATMENT AT CHILDREN

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Introduction: Hiperdontia, supernumerary tooth, presents a challenge to the oral surgeon, pedodontion, and orthodontion, in order to establish the adequate occlusion, rehabilitation and achievement of functional and aesthetic moment for the patient. In 90% of cases the supernumerary teeth are in the upper jaw. Meziodens is the most common type of supernumerary tooth. In 80% of cases only one tooth (mesiodens) can be impacted while in 20% of cases two or more meziodens can be impacted.

Case report: Three children of the same family aged, 10, 11, 13 years, came at the CUSCK in Clinic of Pedodontics because of the persistation of milk teeth in upper jaw,frontal region. After clinical examination, panoramix- RTG in all of three patients we found to be present the impacted permanent teeth, supernumerary tooth's in frontal region of both jaws, and the evident persistation of milk teeth. After dental treatment of cariotic tooths in the Clinic of Pedodontics and extraction of persistent milk teeth, surgical treatment is continued in the Oral Surgery of CUSCK where the supernumerary teeth are removed and at the same procedure the permanent tooth's of the frontal are are denudated. Patients are constantly called to examinations after surgical intervention and what we initially noticed are the first signs of eruptions of lateral incisives at all the patients, while the central incisives remained un-erupted. The patients then underwent second intervention in order to perform the orthodontic withdrawal of the central incisives. Follow up will be presented with RTG and photos taken during the treatments.

Conclusion: For proper treatment of this anomaly is necessary to establish close cooperation in between Pedodontist, Oral surgeon and Orthodontist.Based on our results this multidisciplinary approach gives visible results.

164. ADVANTAGES OF THE IMPLANT'S SHAPE INTO THE LONGEVITY OF IMPLANTO-PROTHESIS

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Longevity of implanto-prothesis is related with many factors like: dentist's professionalism, the age of the patient, oral hygiene, distribution of forces over implants etc. Experience has come to show that the implant's shape is of a great importance as well.

The Aim of this study is to evaluate according to our experience the best implant's shape which in time,offer minimal resorbtion around itself.

Methods. 1000 implants of 4 different types,were applied on 400 patients. A group of patients was created for each implant's form. The patients among groups were similar in relation of number, age, bone density and oral hygiene. Every patient was observed clinically and radiographically before and after the implant was applied and later,every 2,3 or 4 years after the application.

Results and Conclusion:. At the end of the study we concluded that different implant's shape offer different results into bone resorbtion around itself in time.

According to our experience the best implant should have these characteristics: conic shape, double thread, high roughness of the surface and a special root form design.

165. TREATMENT OF MISANGULATED IMPLANTS FOR MAXILLARY FIXED PROSTHESIS WITH ANGULATED ABUTMENTS: A CLINICAL REPORT

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Introduction: Misangulated and malpositioned implants pose a significant challenge for the prosthodontic treatment of edentulous patients.The design of implant prosthesis is often determined by the position and angulations of the supporting osseointegrated implants. Adequate pre-surgical prosthetic design is essential to the accurate placement of implants for an aesthetically acceptable and functional result. Various solutions have been proposed to correct unfavorable implant placement during the prosthetic phases of treatment. The most common

Methods: include the use of angulated or custom abutments, which will allow for correction of mis-angulated implants. In this clinical report, porcelain-to-metal fixed restoration with pink-colored restorative material on anterior teeth to replace a portion of the soft tissue has been used for the maxillary completely edentulous patient.

Case Report: A 52-year-old woman presented to Gülhane Military Medical Academy, Department of Prostodontics for prosthetic rehabilitation of her edentulous maxilla. Eight implants had been previously placed in different positions. Implant level impression was taken and angulated abutments were used in order to compensate the lack of parallelism. The abutments were carefully milled by the lab due to path of insertion. Metal substructure was controlled in the mouth for passive fit and a bite registration was taken. The crown height space led us to fabricate pink-colored porcelain along the gingival portions of the restorations anteriorly which can be described as FP-3 type restoration. After providing a precise occlusion, the prosthetic restoration was cemented on the angulated abutments.

Conclusion: When the prosthetic design should be modified to compensate the implant angulations, the most common method is to use angulated or custom made abutments. In this report, a fixed prosthesis consisting of angulated abutments has been illustrated as a viable treatment option for highly angulated implants

166. ALL-ON-FOUR IN CASE OF PARTIAL MANDIBULAR RESECTION: A 3D FINITE ELEMENT STUDY

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Aim: The objective of this study is to analyse stress distribution patterns on a 3D FEM of two different designs for fixed implant-supported prostheses in completely edentulous patients at three levels (bone, implants and framework), comparing the **Results** obtained on whole and partially resected mandibles.

Methods: A TC scan of a totally edentulous mandible was used to create 3D anisotropic FEM of a whole and of a partially resected mandible. Two types of totally implant-supported rehabilitation were simulated, each with four implants: parallel and All-on-Four configured fixtures on whole mandible; parallel and All-on-Four configured fixtures on resected mandible. Stress distribution patterns and its maximum values were analyzed at bone, implant and superstructure level.

Results: Implant stresses are greater on the whole mandible. Framework and cancellous-bone stresses are comparable in each of the cases analyzed. On the resected mandible maximum stresses at the cortical-bone/implant interface are higher. The exact opposite applies in maximum stresses on external cortical bone.

Conclusions: On the resected mandible the All-on-four configuration was biomechanically superior to that with parallel implants as regards radial stresses on implants and cortical bone. At the bone/implant interface, however, this heightened the maximum stress. To minimize that stress on a resected mandible a design with four parallel

implants was better. On the whole mandible the All-on-four rehabilitation was biomechanically superior to the parallel-implant one at all levels.

167. COMPARISON OF THREE DIFFERENT CEMENT TYPES OF CEMENT-RETAINED IMPLANT RESTORATIONS

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Surface area, surface characteristics, paralellism and type of the cement are closely related to factors that affect retention of implant restorations. One of the most important of these factors is the type of the cement used. Each cement presents different value of retention and resistance. The purpose of this study is to compare retention of the different cements for implant restorations.
Methods: Twenty-one dental implants with the same length and diamater were assembled and mounted in acrylic resin (15x15mm) using a dental surveyor. Metallic crowns per abutment were cast and cemented with three different type of cements (zinc phosphate, glass ionomer and resin cement). After 24 hours, the specimens were subjected to a pull-out test using an universal testing machines. As a result of the measurements were compared with the values determined.
Results: The **Results** were analyzed statistically. Zinc phosphate cement was found to be most powerful of these.
Conclusion: This study was done whether the luting cements were strong enough to the implant restorations in routine usage. We recommend that zinc phosphate luing cement is the most retentive.

168. WEAR OF OVERDENTURE ATTACHMENTS AND IMPLANT INCLINATION

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Aim: In implant-supported overdentures with ball attachments the male part is screwed directly onto the fixture and the female part is encased in the resin of the prosthetic plaque. Placing the implants in the interforaminal area has to take into account the often compromised morphology of edentulous mandible; accordingly, the Aim of this study is to test the effect of implant inclination on prosthesis retention.
Methods: This study employed fatigue testing of spherical titanium overdenture attachments in order to analyze the behaviour of two types of matrix -one in teflon, supported by a specifically designed steel container, and one in gold alloy- whose caps were positioned at different angles with respect to the axis of the implant: 0°, 5°, 10° and 15°.
Results and Conclusions: The retention values obtained with the two different types of caps after 5,500 cycles of insertion and removal (corresponding to 3 real-life years) were compared: teflon matrices proved to be better than gold ones, also because of the practical difficulties of correctly mounting the latter in the prosthetic plaque.

169. DIFFERENT SURFACE TREATMENTS FOR RETENTION OF IMPLANT RESTORATIONS

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There are many factors that affect retention of cemented restorations on implant abutments. These are parallel and slope, surface area and height, surface characteristics and roughness and type of cement. Restorations can be made more retentive by strengthening one or more of these factors. The aim of this study is to evaluate contribution of surface treatment for retention of implant restorations. Material and methods: Thirty-five dental implants with the same length and diamater were assembled and mounted in acrylic resin (15x15mm) using a dental surveyor. Metallic crowns per abutment were cast. Five groups of samples were formed. First group was the control group, the second group had pitting in the forms of coves formed on surface of abutments and no-cave on internal surface of crowns, the third group had one cave on internal surface of crowns and no-cove on surface of abutments, the fourth group had one cove on surface of abutments and one cove on internal surface of crowns and the last group had two coves on surface of abutments and two coves on internal surface of crowns. All sample groups were used in a standart cement (zinc phosphate cement) and after 24 hours, the specimens were subjected to a pull-out test using an universal testing machines.
Results: The results were analyzed statistically. Retention values differed according to the type of coves in crown retention.
Conclusion: It is observed that preparing coves has a contributary affect on crown retention.

170. FOREIGN BODY REACTION TO IMPRESSION MATERIAL CONFUSED AS A NEOPLASM: CASE REPORT

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Introduction. A foreign body reaction occurs under normal physiological conditions in order to protect the body from the foreign object. We report a case where a fistulized foreign body granuloma, following reaction to impression material, was thought to be a carcinoma.

Case summary. A 38-year-old woman was referred to Aldent dental clinic, for evaluation of a persistent painless ulceration of the right maxillary mucosa following the extraction of her lateral incisor 18 months earlier. This lesion was presumed to be squamous cell carcinoma by the referring dentist. During physical examination, a fistula opening located on the right maxillary edentulous incisor area was noted. The surrounding area was covered by normal-appearing mucosa. There was no evidence of regional lymphadenopathy. The medical history of the patient was noncontributory. Questioning indicated that impression for bridge restoration had been taken immediately after extraction of the right maxillary lateral incisor. Apparently, the impression material was forced into the extraction socket and caused a foreign body reaction which was later fistulized. This was confirmed after surgical removal of the impression material and surrounding granulation tissue. The lesion resolved after treatment.

Conclusion:. Although foreign body reaction is rare, it is worth considering in the differential diagnosis of oral lesions.

171. STEVENS-JOHNSON SYNDROME - FROM THE ASPECT OF DENTAL MEDICINE

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Introduction: Erithema multiforme (EM) is an acute ulcerative mucocutaneous condition characterized by polymorphic erythematic skin lesions and blistering. Two forms of disease are EM minor and EM major (Stevens-Johnson syndrome, SJS). Patients are usually young. Males are more affected then women. Etiopathogenesis is poorly understood, but in most cases herpes simplex and Mycoplasma pneumoniae infection or exposure to antibiotics, analgesics or vaccines triggers immunologic derangement that causes the disease. EM minor starts with prodromal symptoms including fever, headache, cough, sore throat and malaise. Erythematous, blistering skin lesions occur in 50 % of cases. SJS is more severe form of the disease, and it is most often triggered by drug rather than infection. Occular or genital involvment is present in addition to other symptoms.

Case summary: In this clinical case we presented a 13 year-old boy who presented with symptoms of SJS after taking antibiotic. Patient developed skin, ocular and oral lesions one day after consuming antibiotic. Oral lesions were characterized by erythematous patches that rapture and leave painful erosions, ulcerations and hemorrhagic crusting. This clinical case follows the patient at Department of Oral Medicine and Periodontology from diagnosis through treatment and complete recovery.

Conclusion: Early multi-disciplinary diagnostic and treatment protocols are extremely important in preventing complications and progression of the disease.

172. SCLERODERMA – MULTI DISCIPLINARY APPROACH

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Introduction: Scleroderma is a multisystem, autoimmune disease that affects the connective tissue and can occur in systematic or localised form.

Case summary: This case reports about patient with diagnosis of Sclerosis systemic progressive, Sy.Raynaud, according to positive antibodies specific for scleroderma and a positive HLA B27. Clinically in orofacial region, the patient presents the “mask face” and difficulty in opening his mouth.

Conclusion: The systematic and orofacial manifestations of the scleroderma indicate to interdisciplinary cooperation in the treatment of such patients and require the most efficient prophylaxis treatment from the aspect of dental medicine.

173. A CASE REPORT OF DRUG-INDUCED GINGIVAL HYPERPLASIA

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Introduction. Gingival hyperplasia refers to an overgrowth of the gingival tissues. Several drugs, including calcium-channel blockers, anticonvulsants and ciclosporin, as well as poor oral hygiene associated with some gene polymorphism are thought to be the main causes of this disease. Herein a case of amlodipine-induced gingival hyperplasia is reported.

Case summary. A 59 year old man presented with a

chief complaint of gingival enlargement and bleeding which appeared 9 months earlier. He had been prescribed multiple drugs: oral hypoglycemics since he was diagnosed with type II diabetes mellitus 14 years earlier; amlodipine (10mg once daily), a calcium-channel blocker, which he had taken for nearly 2.5 years to treat hypertension; as well as other drugs for hyperlipidemia and arrhythmia. The intraoral examination revealed severe gingival enlargement with nodular protrusions throughout both maxilla and mandible, especially in the upper front teeth. The gingiva appeared firm and pale and covered almost all teeth surfaces, except occlusal/incisal areas. The lesion was diagnosed as amlodipine-induced gingival hyperplasia. Gingivectomy could not be performed due to uncontrolled diabetes. Therefore, the patient was instructed about oral hygiene and professional teeth cleaning was performed. He was also referred to his physician, who changed the medication: the patient was prescribed methyldopa and valsartan, instead of amlodipine. The intraoral condition improved drastically after changing the medication and establishing plaque control with no gingival re-growth for over 2 years.

Conclusion:. Based on the findings, we suggest that stopping or changing the causative drug should be considered during treatment of gingival hyperplasia, whenever medical conditions allow

174. PLAQUE-TYPE ORAL LICHEN PLANUS, A CASE REPORT

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Introduction: Oral lichen planus is a chronic inflammatory disorder of the oral epithelium. The lesions are potentially malignant and may appear as white striae, papules, plaques, or as erythematous and erosive areas. We herein report a case of plaque-type oral lichen planus.

Case Summary: A 37 year-old male was referred to the University Dental Clinic in Tirana for evaluation and treatment of his periodontal conditions. The patient had mental retardation and was accompanied by his caregiver. His social history was significant for smoking two packs per day since many years, but recently he had decreased to 4-5 cigarettes per day. On intraoral examination severe periodontitis was found, as well as white plaques located bilaterally on the buccal mucosa and lateral surfaces of tongue as well as one additional white plaque on the dorsum of the tongue. The patient was symptom-free. The initial differential diagnosis consisted of plaque-type lichen planus and leukoplakia. A biopsy of the lesion located in the dorsal surface of the tongue was completed. Histologic examination of the lesional tissue revealed hyperkeratosis and band-like lymphocytic infiltrate, consistent with a diagnosis of lichen planus. The material exhibited no evidence of dysplasia. The patient and his caregiver received information about smoking quitting and about the importance of long-term monitoring.

Conclusion: This case illustrates the importance of a comprehensive intraoral examination of the patient, even in the absence of symptoms. As in the current case, although the lesions are obvious, they may be missed by the general dentist.

175. CELL CULTURE CHANGES IN PRESENCE ON DENTURE RESINS

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Introduction. Poly (methyl methacrilate) (PMMA) is the most frequently used material in manufacturing denture bases, obturator and maxillofacial dentures, orthodontic devices and for their relining and reparation. Heat-cured and cold-cured acrylic resins are most commonly used in every day practice. Potentionally toxic substances from the acrylic resins are being leached from the surface layers of the denture base into the saliva, which often causes inflammatory and allergic reactions of soft tissues to which they come in contact. Pathological changes are clinically manifested as stomatitis protetica, stomatodynia and candidiasis.

The purpose of the study was to examine the effect of different concentrated acrylic extracts on the viability of HeLa cell culture, and the possibility of its recovery.

Methods. Testing materials considered of four different acrylic resins. The influence of differently concentrated acrylic extracts (5%, 12,5%, 25% and 50%) on the viability of HeLa cells was examined, together with the reversibility of the changes which appeared on cells' culture. A culture that grew in an extract free medium was used as control. HeLa S3 cell line considered to be analogous to epithelial cells of oral mucosa. The estimation of HeLa cells' viability was done by the MTT test.

Results. All examined acrylic resins showed a slight to moderate cytotoxic effect. With the increment of acrylic extract' concentration cytotoxicity increased. As the concentration of examined acrylic extracts grows, the viability of HeLa cells considerably declines, and their recovery is slower. A complete recovery of the cell culture, after replacing the acrylic extracts by DMEM, hasn't been detected in any of the concentrations examined.

Conclusion:. Complete recovery of HeLa cells has not occurred in any concentration of all examined.

176. EVALUATION OF DENTAL MANAGEMENT PROTOCOL BEFORE HEMATOPOETIC STEM CELL TRANSPLANTATION – CASE REPORT

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Introduction: Dental treatment before hematopoietic stem cell transplantation (HSCT) is essential to prevent serious infections from oral sources among hematological patients receiving high dose chemotherapy conditioning and long term immunosuppression.

Case summary: We present a case of 31 years old female patient with acute myeloblastic leukemia (AML) that was scheduled for allogeneic sibling HSCT during September 2011 at University Hematology Hospital, Skopje. The dental status was evaluated 47 days before the commencement of HSCT therapy, by clinical examination of the hard and soft oral tissues and a radiographic survey including panoramic and periapical films for symptomatic teeth., Teeth with gingival swelling, marginal periodontitis, pain and purulent discharge were found and they were removed. Teeth with apical symptomatic periodontitis and periapical radiolucency of a maximal diameter no greater than 5 mm were endodontically treated. Two teeth with moderate caries were restored. Two residual roots were extracted. Dental plaque was exfoliated and brushing instructions were given. For allogeneic HSCT procedure the patient was admitted to a sterile hepa filtered room. During the conditioning period the patient experienced one episode of a temperature higher than 38°C and an absolute white blood cell count (WBC) of less than $1x10^9$/L lasting 10 days, as manifestations of the immunosupressed status. Signs of odontogenic infection were not observed in our patient during 15 days after stem cell infusion. Dental follow up continued 1, 3 and 6 months after transplant when patient was still on immunosuppressive agents (cyclosporine A) and no severe signs of any dental complication were noticed.

Conclusion: Our case confirmed the need of pre HSCT dental screening to identify and treat potential oral sources of infection. A larger sample studies are required to evaluate this pre transplant dental treatment protocol.

177. COMPARISON OF DEPRESSION AND ANXIETY LEVELS IN PATIENTS BETWEEN BEHÇET'S DISEASE AND RECURRENT APHTHOUS STOMATITIS

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Aims: The Aim of this study was to determine the existing relation between the Behçet's Disease (BD), Recurrent Aphthous Stomatitis (RAU) and psychological alterations of the patient, such as depression and anxiety.

Method: Thirty patients with RAU, and 30 patients with BD, and 15 patients with healthy subjects were participated in the study. Systemic, dental and aphthous ulceration anamnesias of all the patients in the study group have been taken in detail and neck-head, oral mucosa and dental examinations have been made and data has been recorded. Spielberger State-Trait Anxiety Inventory and Beck Depression Inventory has been applied.

Results: It was observed that the depression level is higher in patient with BD and RAU in comparison with healthy subjects ($p<0.05$).

Conclusion: Depression may play a role in manifestations of BD and RAU.

178. BIOCHEMICAL – ENZYME ANALYSIS OF GLOSSOPYROSIS AMONG INDIVIDUALS WITH HYPOCHROMATIC ANEMIA

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Objective: Among other etiological factors that could be related with the onset of this complex symptom, and being most frequent, too, is hypocromic anemia. Very poor data on the relation between hypochromic anemia and pathogenetic events responsible for the clinical manifestation of glossopyrosis was our major scientific challenge, to trace eventual biochemical reactions on the level oral mucosa as the result of iron-deficiency.

Method: The study group consisted of 30 individuals with hypochromic anemia and clinical manifestation of glossopyrosis. For comparison of findings, in a group of 30 individuals with clinical manifestation of glossopyrosis, but with no evidence for hypochromic anemia was selected. Our research comprised

determination of serum, salivary values and those of erythrocyte hemolysate of oxygen-reductive enzymes LDH, GLDH and G-6-PDH.
Results: Biochemical investigations disclosed increased serum and salivary LDH and GLDH activity, as well as increased activity of G-G-PHD in erythrocyte hemolysate among the patients of the study group.
Conclusion: We suggest that increased enzyme activity is the result of disturbances of biochemical and metabolic processes as the result of reduced hemoglobine transport capability and hypoxia as the consequence of iron-deficiency. On the basis of biochemical analysis of **Results** it could be concluded that hypoxy caused by iron-deficiency, being the trigger for numerous systemic disturbances in the human body (biochemical, metabolic, etc.), is the major cause for development of subjective malcomfort and objective alterations in the oral cavity of individuals suffering from glossopyrosis and hypochormatic anemia.

179. DIAGNOSIS AND MANAGEMENT OF ORAL ULCERS

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Introduction: Ulcerative lesions are a group of common oral mucosal disorders. The most common causes of these lesions are mechanical and reactive factors, infectious deseases (AIDS), and neoplasms, as well as autoimmune and hematological disorders. The main clinical feature in all these conditions is an ulcer, which is defined as loss of all epithelial layers. Recurrent aphthous ulcers are among the most common oral mucosal lesions with a prevalence of 10% to 30 % in the general population. The clinical variations have been recognized: minor, major and herpetiform ulcers. Despite their high prevalence, etiopathogenesis remains unclear.
Case summary: We will present a patient with multiple, painful lesions on oral mucosa, with unknown etiology, as well as diagnostic protocol and treatment.
Conclusion: Treatment strategies must be directed toward providing symptomatic relief by reducing pain, increasing the duration of ulcer-free periods, and accelerating ulcer healing. Laboratory examination (HSV, CMV, Epstein-Barr virus, HIV) is very important in diagnostic menagement of nonspecific oral ulcers.

180. ORAL AND SALIVARY CHANGES IN END-STAGE RENAL DISEASE PATIENTS UNDERGOING HAEMODIALYSIS THERAPY

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Aim of study: To detect oral and salivary changes at end-stage renal disease patients undergoing haemodialysis therapy. **Matherial and Methods:** At 19 patients with renal failure undergoing haemodialysis therapy were evaluated oral changes and also the pH values of stimulated and unstimulated mixed saliva. The control group was consisted of 15 systematically healthy patients. **Results:** The uremic odor, dry mouth, and tongue coating, were the more frequent clinical symptoms at all examine patients. pH values of stimulated and unstimulated saliva were increased, but there was not a statistical differences.
Conclusion: Renal disease patients at end-stage, showed significant changes at oral and salivary findings. That's way we registered the connection between the oral changes and renal dysfunction.

181. ORAL LICHEN PLANUS - DIAGNOSTIC AND CLINICAL TREATMENT

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Introduction: Lichen planus is a chronic inflammatory disease of the skin and mucous menbranes that frequently involves oral mucosa. The lichen lesions are to be found in the mouth in only 25% of cases, on the skin and in the mouth in 40% cases and only on the skin in 35% of cases. The exact etiopathogenesis has not been clarified, but the immunological system is believed to play a leading role. Lichen is the most common dermatosis on the oral mucous. Its etiology is unknown but stress, genetic predisposition, medicine, diabetes mellitus, HIV infection, and hepatitis C are all favourable factors for the genesis of the illness.
Studies of the malignant potential of oral lichen planus (OLP) have been hampered by inconsistencies in the diagnostic criteria used for OLP, the criteria adopted to identify a true case of malignant transformation in OLP, the risk factors for malignant transformation and the optimum management of patients to ensure the early diagnosis of transformation.
Case summary: We will present case report with morphological characteristics of lichen on oral mucosae. This study presents pacient who signed up to the Department for Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo. We will

recommend the medical treatment for patient with oral lichen.
Conclusion: Pathohistology examination is the clinical imperative in oral lichen planus.

182 ASSOCIATION OF CERTAIN PERIODONTOPATHOGENES WITH HUMAN PERIODONTITIS LESIONS

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Aim: The purpose of the present investigation was to compare the percentage of the most common periodontal pathogens in subgingival plaque samples from patients with chronic periodontitis and healthy subjects with polymerase chain reaction (PCR) which allowed rapid and specific detection of periodontopathic bacteria in subgingival plaque
Method: The examined groups, consisted from 20 subjects with diagnosed chronic periodontitis and 20 subjects without signs of periodontal disease (healthy subjects), were recruited in the study from the patient pool at the Department of Oral pathology and Periodontology, University Dental Clinical Centre in Skopje. Subgingival dental plaque was collected using a sterilized paper point..We used Parodontose plus test, reverse hybridization kit, for the detection of periodontal marker bacteria: Actinobacillus actinomycetemcomitans, Porphyromonas gingivalis, Prevotella intermedia, Tannerella forsythia and Treponema denticola, with a detection limit of 10^4. Significance of difference between groups was determined using the Pearson chi-sqare test, descriptive statistics and regression analysis.
Results:All subjects with periodontitis had significantly higher percentage of each periopathogenes against healthy subjects. We found that most of patients, 40% had presence of 3 types of periopathogens at the same time, 35% had 4 types of periopathogenes etc. The differences were for A.actinomycetemcomitans x^2=4.44 and p<0.05, P.gingivalis x^2=19.26 and p<0.001, P.intermedia x^2=11.62 and p<0.01, T. forsyhtia x^2=15.17 and p<0.001, T denticola x^2 =8.29 and p<0. 01, respectively.
Conclusions: This investigations confirmed the strong association of these five examined periopathogenes with periodontitis, especially P.gingivalis and T. denticola which were found in 75% in subjects with periodonitis.

183. CLINICAL EFFECTS OF NON-SURGICAL MECHANICAL PERIODONTAL TREATMENT ON GENERALIZED AGGRESSIVE PERIODONTITIS

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Aim: The Aim of this study was to evaluate clinical effects of non-surgical mechanical periodontal treatment in generalized aggressive periodontitis (GAP) patients.
Methods: Six patients (19 to 43 years of age) with GAP referred to the Department of Periodontology, Marmara University from June 2011 to November 2011 were included in the study. All subjects received oral hygiene instructions and underwent scaling and root planing which were completed in 4 sessions, within 3 weeks. Oral hygiene instructions and supragingival debridement were repeated every 2 weeks during 3 months. Plaque index (PI), gingival index (GI), bleeding on probing (BOP), probing depth (PD), and clinical attachment level (CAL) were recorded from 6 sites per tooth at baseline and 3 months after periodontal treatment. Patients were informed not to use any systemic or local antimicrobials during this period.
Results: At 3 months, PI significantly decreased from 2.56±0.15 to 0.69±0.21 (p=0.028), GI from 2.30±0.38 to 0.93±0.19 (p=0.028), BOP (%) from 95.09±6.8 to 48.31±13.17 (p=0.028), PD from 5.07±0.36 mm to 3.31±0.51 mm (p=0.028), CAL from 6.01±0.84 mm to 4.94±0.83 mm (p=0.046). Moreover, the percentage of sites with initial PD>6 mm and CAL>6 mm showed statistically significant reduction after 3 months (p=0.026 and p=0.046, respectively).
Conclusions: Our **Results** revealed that all clinical parameters improved 3 months after non-surgical mechanical periodontal treatment. Our findings suggest that non-surgical mechanical periodontal treatment of generalized aggressive periodontitis patients can provide significant clinical outcome over a 3-month period even without using systemic antimicrobials.

184. MANAGEMENT OF GINGIVAL RECESSION DUE TO PREVIOUS DENTAL TRAUMA

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Aim: Previous extra oral trauma history is one of etiological factors of gingival recession. This paper presents the surgical periodontal management of a gingival recession due to dental trauma.

Case Report: A systemically healthy 21-year-old male attended with complaint of gingival recession in lower right incisor. Dental history revealed a facial trauma to the anterior mandibular region that caused labial replacement of the involved root. In the intra-oral examination, a severe Miller Class II gingival recession was observed on the vestibule surface extending to the apex of the root. The vestibule site of the root and the apex were completely exposed. The tooth was not mobile. Approximal and lingual periodontal support of the tooth were intact. Periodontal plastic surgery was decided to obtain root coverage. Root canal was filled with MTA during the one visit endodontic treatment. A full thickness pedunculated flap was elevated from distal site of the tooth. Root planning and apical resection was performed. The flap laterally positioned covering the root surface and sutured to de-epitelized wound margins. During the 6 month follow-up, complete root coverage was observed.

Conclusions: Gingival recession may occur as a consequence of facial trauma. Laterally positioned flap may provide successful results in such cases.

185. TREATMENT OF GINGIVAL PIGMENTATION BY DIODE LASER: A CASE REPORT

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The harmony of the smile is determined not only by the shape, position, and color of the teeth but also by the gingival tissues. Gingival pigmentation results from melanin granules which are produced by melanoblasts. Although melanin pigmentation of the gingiva is a completely benign condition and does not pose any medical problem, complaints of “black gums” are common particularly in patients having a very high smile line. The different treatment modalities that have been reported for depigmentation are scalpel surgery, partial thickness flap, cryotherapy, electrosurgery, and lasers.

The present case report describes simple and effective depigmentation technique using diode laser surgery for gingival depigmentation.

Case Report: A 29-year-old female patient complaining of pigmented gingiva visited Ankara University, Faculty of Dentistry, Department of Periodontology. On examination, the patient was healthy but had a pigmented gingiva. Pigmentation was unsightly and hence laser depigmentation procedures were planned. The procedure was explained verbally to the patient and the consent was obtained.

After local anesthesia diode surgical laser was used for depigmentation of the maxillary and mandibular gingiva. During the procedure, laser ablated the gingival epithelial surface little by little to reach the pigments without causing any bleeding which was beneficial for clear visualization. There was no need to apply a periodontal dressing. Healing was good at 1 month with pink color comparable to nearby non-treated area, resulting in a significant improvement in aesthetic appearance. Six months follow-up showed no signs of recurrence of pigmentaion.

Conclusion: Diode laser treatment is a good choice for depigmentation of gingiva.

186. THE ABSENCE OF CONTACT POINT LIKE FAVORABLE FACTOR ON ADVANCEMENT OF PERIODONTAL DISEASES

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P.H.I. Vivadent Tetova F.Y.R.O.M

Introduction: In stomatological practiec, we often meet non adequate dental restaurations. The absence of contact point often represent an initial and stimulation factor for parodontal diseases.

The Aim is to definate the main factors which cause parodontal diseases, and the favorable conditions for its development.

Our material is compaund from 100 patients treated in dental clinic Vivadent, Tetova durin the 2011. By X-ray were analysed 582dental restaurations,whereas by intra oral examination were determined the parodontal indexes.

Results: From 100 exanimate patients, respectively 582 dental restaurations by 40.72% of cases we have absence of contact points.

There was registered an expressed dental calculus, and the significance between the work group and general index is P<0,01, meanwhile between control group and exanimate group is P<0,025.

Results showed the high statistical significance of periodontal idex, comparised with intact teeth, or teeth with adequate dental restorations with contact points.

Conclusion: Parodontal diseases are with complex aetiology, whereas their prevention needs serious approaching by the tim compaund from specialists of all field of dentistry.

187. IMMUNOSUPPRESSIVE THERAPY AS A RISK FACTOR FOR PERIODONTITIS

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Immunosuppressive therapy, affecting the immune system and inflammation response can be an important factor in initiating or modifying the periodontitis.
Aim of study: to detect the effect of immunosuppressive therapy in periodontal destruction process.
Methods: The research group was formed of 64 renal-transplant patients, with immunosupressive therapy (Neoral®), prednizolon) divided into four subgroups depending on the daily dose of applied cyclosporine (100 mg, 125 mg, 150 mg 175 mg). The control group consisted of 21 systematically healthy subjects, diagnosed with periodontitis without any medicamentous treatment. Clinical examinations were carried out by applying dental plaque index (PI), gingival index (GI) and attachment loss index. Differences between immunosuppressed groups and the control group were analyzed using Student t-test.
Results: There were no significant differences between the subgroups and the control group with respect to GI index and attachment loss index *(p*>0.05).There were significant differences between the subgroup with daily dose of 175mg and the other subgroups and the control group (*p*=0.00) for PI.
Conclusion: Immunosuppressive therapy does not increase the risk of periodontitis.

188. MANAGEMENT OF AMLODIPINE-INDUCED GINGIVAL ENLARGEMENT: A CASE REPORT

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Introduction: Gingival hyperplasia is one of the side effects associated with certain drugs. Amlodipine, a calcium channel blocker, used as antihypertensive drug has been found associated with gingival hyperplasia. This case report presents diagnosis and management of amlodipine-induced gingival hyperplasia.
Methods: 77 year-old female patient, who had been medicated with anti-hypertensive agent including amlodiphine (Ca+2 canal blocker) for 3 years, referred to our clinic with severe gingival hyperplasia. The patient had maxillary fixed prosthesis from tooth no 15 to 25 and mandibular complete denture. The hyperplastic gingival enlargements were detected only in the maxilla. The patient's medication was replaced with a recommended drug (20 mg ofOlmesartanmedoksomilcombined with 12,5 mg of hydrochlorothiazide) by her medical internist. All the hyperplastic tissues were removed with modified gingivectomy technique and the flaps were sutured. Sutures were removed after 10 days. Patient was recommended to use interdental cleaning agents. After a period of 1,5 years patient's fixed prosthesis were renovated.
Conclusion: No gingival enlargement was detected within 2 years.

189. PERIODONTAL TREATMENT AND HISTOLOGICAL EVALUATION OF HEREDITARY GINGIVAL FIBROMATOSIS

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Introduction: Hereditary gingival fibromatosis (HGF) is a rarely seen (0.0000013%) genetic disorder which is characterized by proliferative fibrous gingival tissue overgrowth. It usually develops as an isolated disorder but can be one of the features of several multi-system syndromes. Although it is identified as an autosomal dominant condition, recessive forms are also described.
Case summary: In this case report, clinical and histological findings and periodontal treatment procedures were presented in 2 siblings with HGF. Clinical measurement including plaque index, gingival index, probing depth and gingival growth index were recorded. Following initial periodontal treatment consisted of scaling and root planing, full mouth flap operations were performed and excised gingival tissues were examined histologically. Hematoxylin-eosin stained sections showed mild mixoid fibrotic tissue with extended rete peges, rich collagen fibers, low number of cells and small vascular formations in lamina propria, all of which were consistent with HGF. Clinical improvements were observed throughout 1 year follow-up period.
Conclusion: Satisfactory functional and aesthetic outcomes were achieved for patients with HGF after periodontal treatment.

190. PARTICIPATION OF APOPTOTIC CELL DEATH IN ETIOLOGY OF GINGIVAL RECESSION

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Background and objective: Gingival recession is characterized by the displacement of the gingival margin apically from the cementoenamel junction. The induction of gingival recession by a single factor is unlikely. Etiological factors include, malaposition of teeth, poor oral hygiene, aggressive toothbrushing and orthodontic treatment.It also has been suggested that inflammation can persist sub clinically and therefore cannot be eliminated as a factor in induction of gingival recession. Our previous investigations suggested that connective tissue inflammation is associated with increased rate of apoptotic cell death. Therefore the objective of our study was to determine the participation of apoptotic cell death in gingival recession.

Methods. The group was consisted of 30 patients with attachment loss equal or greater than 6mm and various degrees of gingival recession. All the examined patients were between 20 and 40 years old and besides the regions with gingival recession they all had regions with attachment loss greater than 6mm but the position of the gingival margin was above the cementoenamel junction. Gingival tissue biopsies were taken from the examined region and from the regions with same attachment loss but without gingival recession. Tissue peaces were fixed in 10% formalin and the formalin fixed sections were submitted to hemotoxylin-eozin staining and detection of apoptotic cell death as well.
Results: Statistical analysis of our **Results** showed that the number of apoptotic cells per view field, showed significant statistical difference for gingival recession greater than 5mm compared to sites without gingival recession.
Conclusion: The obtained **Results** of our study indicate possible participation of apoptotic cell death in gingival recession greater than 5mm.

191 PERIODONTAL TREATMENT OF PRE-PREGNANCY PATIENT: A CASE REPORT

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Introduction: The relation between preterm labor and low birth weight (PLLBW) and periodontal disease has become a subject of interest in the past ten years. Several studies have been performed linking PLLBW with periodontitis in pregnant women. While the relationship between periodontitis and preterm labor is still under investigation, the efficacy of periodontal treatment in pregnancy for prevention of prematurity and low birth weight is an area of interest.
Case summary: Thirty-five years old female was referred to our clinic by her gynecologist with symptoms of bleeding and swelling of the gingiva. She also had esthetic problems. She wanted to have her periodontal treatment before her pregnancy. During the intraoral examination severe halitosis, gingival edema, erythema and spontaneous bleeding were observed. The patient was diagnosed as chronic periodontitis based on her clinical and radiographical examinations. Initial periodontal therapy (IPT) including oral hygiene instruction, scaling, root planing, and polishing was performed. Six weeks after IPT she was reevaluated in terms of clinical parameters, such as plaque index, gingival index and probing depths. Clinical improvements were accompanied by reduction of periodontal parameters measured. For the treatment of Miller III defect on right mandibular central insicor, the procedure using gingival unit donor greft of site-spesific vascular configuration placed on a traditionally prepared supraperiostal recipient site was performed. Healing on donor site was uneventful and the defect coverage was found satisfying by the patient.
Conclusions: Due to the importance of establishment of a healthy oral environment and optimal oral hygiene levels in pre-pregnant patients, the requirements for healthy periodontal tissues were provided in this case and followed all through the pregnancy period.

192. GINGIVAL TRATMENT NEEDS OF HOSPITALIZED PATIENTS USING CALCIUM CHANNEL BLOCKERS

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Aim: The Aim of this study was to determine the treatment needs of hospitalized patients in cardiology department of Atatürk University, Medicine Faculty and investigate to the relation between calcium channel blockers usage and gingival enlargements in these patients.
Methods: The hospitalized patients in department of cardiology, Atatürk University Faculty of Medicine, using a calcium channel blocker (amlodipine or diltiazem) were subjected to oral examination in order to determine gingival tratment needs and gingival enlargement status. Patients with gingival enlargements were referred to department of periodontology, Atatürk University, Faculty of Dentistry for advanced oral and gingival survey, after their discharge from cardiology department. Scaling and root planning as initial periodontal treatments were performed after medicament regulations when needed. Subgingival scaling was performed to areas with true pocket. Follow up period is going on.
Results: In the majority of patients using calcium channel blockers, gingival enlargement was determined and their initial treatments were carried out. Follow up treatments are ongoing.
Conclusion: The majority of the patients using calcium channel blockers had gingival enlargement and needed gingival treatments.

193. COMBINED TREATMENT OF MAXILLARY EXTENSIVE HYPERPLASIA AND PERIAPICAL LESIONS DUE TO ILL-FITTED FIXED PROSTHESIS

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Introduction: All prosthetic and restorative therapies require a healthy periodontium as a prerequisite for successful outcome. The interrelation between periodontics and prosthetic dentistry is present at many aspects,including location of margins,crown contours and response of the gingival tissues to restorative materials. One of the most common reasons of failure in fixed dental prosthesis is inadequate relation between gingival mucosa and crown margins and also violating the routine biomechanic rules of preparation. If patients have also poor oral hygiene,seriously progressed and untreated decays may cause apical lesions and periodontal destruction of the abutment teeth in these cases. The unique method of treating such lesions is commencement of endodontic and/or periodontal therapies.

Case Summary: A 42 year-old female patient was referred to our clinic with the complaints of severe dental pain which she had suffered time to time,gingival hyperplasia and bleeding after she had done maxillary full-mouth fixed prosthesis 2 years ago. The patient stated that she had also blood hypertension and been taking amlodipine canal blocker.After removing maxillary fixed prosthesis,all carious teeth and surrounding gingival hyperplastic tissues were treated by endodontic and periodontal surgical therapies and the prosthesis was replaced following the treatment. The calcium canal blocker drugs which were supposed to contribute in hyperplastic gingival formation were substituted with ACE inhibitors after the consultation with the physician of the patient. One month later,the patient had no dental or gingival complaints and one year later,radiographic examinations showed the progressive process of healing on periapical lesions.

Conclusion: Overhanging and ill-fitted restorations such as crown margins haveshown to result in loss of alveolar boneanddevelopment in periodontal pockets.Suchsites are more susceptible to irritation from plaque.If the patient is also using some drugs that may cause extensive gingival hyperplasia,the current situation may progress worse. In thiscase it was shown that ill-fitted margins cause gingival hyperplasia, edema and bleedingon probing. These pathological features were significantlyreduced when suchdrugs were substituted and crowns were replacedwith crowns with precise margins.

194. MR EVALUATION OF THE LINGUAL NERVE RELATION TO THE MANDIBULAR MOLAR REGION

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Aim: Lingual nerve is a branch of the mandibular division of the fifth cranialnerve, the trigeminus. It mainlyin nervat es the anterior part of the tongueand lingual gingivew hile it carries para symphatic fiberstosu blingual, submandibular salivaryglands and receive staste impulses from the anterior part of thetongue. Lingual nerve diverges from the mandibular nerve in thein fra temporal fossa thendescendsto the retromolarregion and passes inferior to the mandibular molar teeth. Inour study wetried to describethe relation of the lingual nerve to the mandibular molarteeth in MR scans.

Methods: 100 sides of 50 subjectswho had MR scans were retrospectively investigated. The coronalimages from mid-points of each molar were chosen forme asuring parameters as follows: horizontal distance of the lingual nerve from each molar, vertical distance of the lingual nerve from sementoenamel junction of each molar. Pearson Chisquare and Student t-test was performed for statistical analysis amongage, gender, localizationand measurements ($p<0.05$).

Results: The horizontaldistance of lingual nerve from sementoenameljunction of the mandibular third molar wasfo und to be 3,02±1,07 mm and the vertical distance was found to be 2,58±1,57 mm. The distance between the lingulanerve and secondand first molars were significantly high. The rewereno significant differences between side, genderand age.

Conclusions: The currents tudy shows thatlingualnerve is found in close proximity to the third molars and extreme care must be taken in scaling of third molarse specially at the lingual side. More precisdistances could be given by increasing the subject number.

195. ACCORDION TECHNIQUE IN GINGIVAL GRAFTING BEFORE IMPLANT PLACEMENT IN SEVERELY ATROPHIC MANDIBLE

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Aim: In the treatment of fully edentulous patients with severe mandibular atrophy, implant supported overdentures are usually the choice of treatment due to the difficulties in obtaining the stabilization and retention of the removable prosthesis. This case report presents the use of free gingival grafts prior to implant placement in order to create enough keratinized tissue around the implants and to prepare the edentulous ridge for superior prosthodontic treatment.

Methods: A 56-year old fully edentulous female patient was presented with advanced alveolar resorption resulting in severe mandibular atrophy. She was complaining about her previous dentures due to their instability and lack of

retention. Her clinical examination revealed almost no alveolar height and no keratinized tissue on the mandibular mucosa. To prepare the mandibular ridge for an ideal implant-supported prosthetic treatment, it was decided to use free gingival grafts to create enough keratinized tissue prior to implant placement for the long term health of peri-implant tissues and the success of prosthetic treatment. After the preparation of the recipient sites, free gingival grafts were taken bilaterally from the palate and the accordion technique was used to attain the expansion of the graft distally to enlarge the grafted area. After an uneventful healing period of 6 weeks, two screw-type rough surface implants, 4.0 X 9.00 mm, were placed bilaterally in the canine area and the flap was primarily sutured. After 3 months osseointegration period, gingival formers were placed with uncovering procedure. After a 6-week healing period, her prosthodontic treatment was completed with an implant supported overdenture for the mandible and a conventional complete denture for the maxilla. During the one-year follow-up period there were no complications.

Conclusion: This case report demonstrates that the establishment of keratinized mucosa around the implants guaranteed the health of peri-implant tissues and the success of prosthodontic treatment.

196. AGE ESTIMATION USING PULP/TOOTH AREA RATIO AND EVALUATION OF KVAAL METHODS: APPLICABILITY ON ORTHOPANTOMOGRAPHS

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Introductiod: Age of one of the essential factors in establishing the identity of the person and a lot of methods used for age estimation of individuals. Some of these methods needs tooth extraction but radiological methods are nondestructive also uncover the hidden facts which cannot be seen with physical examination. In according to this we prefer radiological **Methods:** for this paper.

Methods: 114 patients (68 female, 46 male) aged between 17-72 years selected for the study. In addition to orthopantomographs, periapical x-rays were taken from maxillary canine tooth, using paralleling technique. Although the original method of Kvaal et al. included the analysis of six teeth, it was not possible to analyze maxillary teeth due to fact that the digital images did not meet quality criteria. So on panoramic radiographs inferior lateral, canine and first premolar teeth were used for analysis. Teeth showed any pathology like caries, periapical lesions and severe periodontal diseases, also teeth with crowns, fillings and root treatments excluded from study. Maximum tooth length, maximum root length, maximum pulp length, root and pulp width at CEJ, root and pulp width midway between apex and CEJ and root and pulp width midway between CEJ level and mid root level, measured for all teeth. Also on periapical radiographs 10 point marked on the surface of the pulp outline and twenty points marked on the surface of the tooth to obtain pulp and tooth area ratio. Measurements on panoramic images carried out with Easydent PC software and measurements on periapical radiographs carried out with Adobe Photoshop CS4. After the measurements done, all the variables for every tooth entered separately on a Microsoft Office Excel spreadsheet and Kvaals formula applied for every tooth. Than obtained variables entered in Statistical Package for Social Sciences Program (SPSS 17) to evaluate applicability of Kvaal method and achieve the correlations between real age and morphological variables to develop a new formula for age estimation.

Results: In the study the entire sample was distributed four different age groups. 17-24, 25-34,35-44 and 45-75 to observe the effect on Kvaal method on different age groups and develop a new method using pulp/tooth area ratio on periapical x-rays, which were taken with paralleling technique.

Conclusion: The purpose of this paper is to reveal the differences between orthopantomograph and periapical radiographs.

197. KISSING MOLARS: REPORT OF FOUR CASES AND A REVIEW OF THE LITERATURE

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Aim: The term '*kissing molars'* (KM), is an extremely rare clinical condition. KM may occur alone or accompanied

by other disorders such as Mucopolysaccharidoses (MPS). In this study, we evaluated the KM fenomen in light of the literature.
Methods: In this study, four new cases of KM have been presented. Sixteen cases of KM composed four new cases and previously reported twelve cases have been evaluated.
Results: Ten (63%) patients out of sixteen were male, five (31%) patients were female, and the sex of one patient (6%) is unknown. Five patients with KM had MPS and one patient with KM had Down's syndrome.
Conclusion: It is concluded that the considerable radiographic findings and changes without notable symptoms, may occur involving inclination of the tooth and state of impaction in impacted molars during the usual age of eruption. This presented study revises the feature of KM phenomenon in the light of literature.

198. EVALUATION OF ATLANTODENTAL INTERVAL IN A GROUP OF TURKISH POPULATION USING 3D CBCT IMAGES RECONSTRUCTED FROM A VOLUMETRIC RENDERING PROGRAM

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Purpose: The atlantodental interval, including the lateral atlantodental interval (LADI) and anterior atlantodental interval (AADI), has been widely used for the evaluation for atlantoaxial instability. With the growing use of advanced technologies in health care and the advent of CT scanners, those anatomical regions can be evaluated easily with 3D imaging. This study consists of anatomic research of atlantodental interval using 3D CBCT images reconstructed form a volumetric rendering program.
Methods: 116 sides of 58 subjects who had craniofacial CBCT scans were retrospectively investigated. The mid-sagittal and mid-coronal image of the dens were chosen for measuring parameters as follows AADI, LADI, LADI asymmetry: the absolute value of variance of left LADI and right LADI. Pearson Chi square and Student t-test was performed for statistical analysis among age, gender, localization and measurements ($p<0.05$).
Results: The AADI was found to be 2.01 ± 0.36 mm in males and 1.82 ± 0.42 mm in females. The AADI was significantly greater in males than in females ($p<0.05$). Most of patients have an AADI ranging between 1.0 and 3.0 mm. The left LADI was found to be 3.76 ± 0.62 mm, and the right LADI was 3.48 ± 0.72 mm in males, while the left LADI was 3.54 ± 0.63 mm and the right LADI was 3.57 ± 0.82 mm in females.
Conclusions: The current study shows that LADI asymmetry is common in patients without any cervical spine abnormalities. LADI asymmetry may be a normal anatomic variant in this population and there is no evidence to confirm that LADI asymmetry is a sensitive or specific indicator of traumatic atlantoaxial instability. CBCT can be powerful tool for examination of this zone with capable of making measurements and 3D representations of the region with less ionizing radiation.

199. COMPARISON OF MANDIBULAR RADIOMORPHOMETRIC MORPHOLOGY OF BRUXERS VERSUS NONBRUXERS

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Aims: Mechanical stress applied to bone influences structure by remodeling, and masticatory muscle function is considered to be a local environmental factor in regulating craniofacial growth. Bruxism is a group of oral parafunctional habits, which contains all kinds of clenching and grinding activities. There is increased muscle function in bruxism and this may result in changes in the morphology of the mandible. **The Aim** of this study was to evaluate the possible differences between the mandibular radiomorphometric indices such as gonial angle, antegonial angle and mandibular cortical width in bruxist and nonbruxist patients.
Methods: In this study, the digital panoramic radiographs of 59 self reported bruxist who also have clinical signs of bruxism and 59 nonbruxist patients having no clinical signs of bruxism were included to the study. The digital panoramic radiographs were exposed during the patients' routine oral examination in Selcuk University. Gonial angle, antegonial angle and mandibular cortical width were measured on these radiographs with an image analysis program (ImageJ). Independent samples t-test was applied to the data.
Results: There were no statistically significant differences for gonial angle (p: 0.764), antegonial angle (p: 0.341) and mandibular cortical width (p: 0.465) between the bruxist and nonbruxist patients.
Conclusions: Although it have been shown that human bone has the ability to remodel itself to better adapt to its biomechanical environment by changing both its material properties and geometry, no statistically significant difference was found between the bruxist and nonbruxist groups for the parameters evaluated in this study. Not only bruxism but also the differences in the duration and severity of grinding or clenching may have a more profound role in this remodeling process.

200. PANORAMIC RADIOGRAPHIC FINDINGS OF TOTALLY AND PARTIALLY EDENTULOUS PATIENTS IN A SAMPLE OF TURKISH POPULATION

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Aim: Aim of this study was to investigate the panoramic radiographic findings of totally and partially edentulous patients and to reveal the significant role of radiographic evaluations before prosthodontic treatment in a sample of Turkish population.
Methods: A totally 845 patients who referred to our hospital for removable dentures were selected. All of the patients were totally or partially edentulous. All of the radiographs were evaluated by a dentomaxillofacial radiologist in the basis of the radiographic findings such as retained root fragments, embedded teeth, radiolucencies, radiopacities, maxillary sinus position and the location of the mental foramen.
Results: A total of 845 patients(62.22%) who have referred for their prosthetic needs were selected in 1358 patients. 771(%91.2) of the patients showed no retained root, 64(%7.6) of them had one, 10(%1.2) had two retained roots. Totally 49 impacted teeth were found in 42 patients. It was detected 37.5% of the patients (n=317) had migrated maxillary sinus. It is followed by 4.5% of the patients (n=38) with the decreased distance of mental foramen to the alveolar ridge. It was found 16 of the patients(1.9%) with soft tissue calcifications (female=8, male=8), 12 osteosclerosis (female=1, male=11) and 11 foreign bodies (female=7, male=4).
Conclusions: In the basis of the results that we obtained, the necessity of radiographic evaluation of totally and partially edentulous patients before prosthetic rehabilitation can not be ignored.

201. CONE BEAM CT EVALUATION OF ISOLATED FIBROUS DYSPLASIA OF TMJ

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Aims: Cranial fibrous dysplasias are rare and comprise less than one percent of all primary bone lesions and typically occurs in patients between the ages of 5 and 15 years. These painless progressively expanding destructive bone swellings produce cosmetic deformities (more common), sino-orbital and auditive complications (less common), peripheral compressive cranial neuropathies (uncommon) and compressive central neurologic manifestations (rarest). In a significant percentage of cases, these lesions were considered inaccessible. **The Aim** of this study is to describe a probable case of isolated fibrous dysplasia of TMJ and discuss the differential diagnosis for this condition.
Methods: In addition to clinical examination the patient was imaged using panoramic radiography, and cone beam computed tomography.
Results: Panoramic radiography showed ossification of left articular eminence and condyle starting from the zygoma. The patient has no limited mouth opening because of the entity. CBCT showed also separation ofa rounded fragmentin TMJ space. These were more precisely located using 3D CT reconstructions. No abnormality was apparent in the right TMJ.
Conclusions:. The patient was treated nonsurgically with a splint, occlusal adjustment, physiotherapy and nonsteroidal anti-inflammatory medications. Albeit of very rare occurrence, dental specialists should be aware of this disease.

202. CONE BEAM CT EVALUATION OF POSTERIOR SUPERIOR ALVEOLAR ARTERY IN A TURKISH POPULATION

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Aims: Understanding the anatomy of the maxillary sinus and its surrounding structures helps us especially for implant surgery and sinus floor augmentation procedure. **The Aim** of the study was to characterize the prevalence, diameter and course of intraosseous anastomosis between the posterior superior alveolar artery and the infraorbital artery (bony canal) using cone beam computed tomography (CBCT) imaging in a group of Turkish patients.
Methods: A retrospective study of 242 patientsaged between 25 and 91 years was performed using sagittal

and coronal Cone Beam CT images. The presence of the intraosseous anastomosis in the lateral antral wall was detected using sagittal plane sections, in addition, the intraosseous course and the diameter of the bony canal were examined.. Statistical comparison of gender, age and localization was performed using chi-square test ($p<0.05$).
Results: The bony canal was identified in 152 (31,4%) of the 484 maxillary sinuses, with a mean distance of 16.1 mm from the alveolar ridge. From the examined canals, in 12 % the diameter was 2–3 mm wide, in 25 % 1–2 mm and the rest of it was less than 1 mm wide. The **Results** of statistical tests showed no statistically significant differences among the groups with respect to gender, age, and localization ($p<0.05$).
Conclusions:. Damage of the bony vessel can cause intense bleeding during surgical interventions. Knowledge about these structures is helpful for the interpretation of imaging before maxillary sinus surgerysuch as panoramic radiographs and provides valuable information to understand the spread and differential diagnosis of pathological entities in this region.

203. CONE BEAM CT EVALUATION OF PNEUMATIZED ARTICULAR EMINENCE IN A TURKISH POPULATION

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Aims: Understanding the anatomy of the Temporo mandibular and its surrounding structures helps us especially for surgical and spread of the inflammation in this region. This study aims to investigate the anatomy and morphology of pneumatized articular eminence (PAT) using cone beam computed tomography (CBCT) imaging in a group of Turkish patients.
Methods: A retrospective study of 825 patients (377 males, 448 females) aged between 18 and 91 years was performed using sagittal and coronal Cone Beam CT images. PAT was defined as nonexpansile, nondestructive cyst-like radiolucency in the zygomatic process of the temporal bone, which appears similar to the mastoid air cells. It was classified two groups as unilocular and multilocular on the radiograph. Statistical comparison of gender, age and localization was performed using chi-square test and effects of together gender, age and localization was performed using corresponce analysis. Statistical bound was accepted 0.05.
Results: Twenty-eight pneumatized articular eminence were found in 21 patients, representing a prevalence of 3.39%. Patients with pneumatized articular eminence had a mean age of 28.9 (s.d 3.13) years with a range of 21-78 years. 10 cases (47.6 %) occurred in females and 11 cases (52.4 %) occurred in males. The **Results** of statistical tests showed no statistically significant differences among the groups with respect to gender, age, and localization ($p<0.05$).
Conclusions:. Knowledge about these structures is helpful for the interpretation of imaging such as panoramic radiographs and provides valuable information to understand the spread and differential diagnosis of pathological entities in this region.

204. INVESTIGATION OF RELATIONSHIP BETWEEN IDIOPATHIC OSTEOSCLEROSIS AND OCCLUSAL FORCES WITH T-SCAN II

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Introduction: Localized radiopacities that incidentally detected in panoramic and periapical radiographs are called idiopathic osteosclerosis (IO). The reason why these lesions called idiopathic is of unknown origin. Eventually IO is a asymptomatic lesion and not associated with any other pathological conditions. However there is no evidence to explain the occurance of the lesions.
Methods: 21 subjects (14 female, 7 male) aged between 17-62 were selected for the study. None of the patients had TMJ disorder and known bruxism history. Three of the patients had two lesions in mandibula at the same time, so a total of 24 lesions were examined. For every patient 7 or 8 movie records were taken until the patient get used to achieve the same bite occlusion. Only red areas, which showed high occlusal forces, taken into account in evaluation of movie records. For every patient; age, gender, lesion location, lesions relationship to teeth, red points number at related area, red points number at opponent side of related area, most effected side from occlusal forces, percentage of sliding, bite occlusion time, high occlusal forces at related area/ high occlusal forces in all area ratio, first high occlusal force occurrence area and occurrence time were recorded. Red points number were

calculated on 2D images at %100 maximum force. Also most effected side, percentage of sliding and area ratios examined at %100 maximum force. Area ratios calculated on Adobe Photoshop CS4 image processing program with using quick selection tool. 2D contours images used for this calculation (Fig 3). First high occlusal force occurrence area and time were detected with using previous-next frame buttons on T-Scan Pc software. The variables were analyzed using the Statistical Package for Social Sciences Program (SPSS 17) to compare relationship between lesions regional site and occlusal forces distributions and occurrence times.

Results: The objective of the study was to determinate the relationship between idiopathic osteosclerotic lesions and occlusal forces with using T-Scan II occlusal analysis device. In the result we observed 18 of the patient had high occlusal force at the same area where the lesion located and 13 of them occurred initially when we examined the high occlusal forces throughout movie the record.

205. EVALUATION OF RETROMOLAR CANALS WITH CONE BEAM COMPUTED TOMOGRAPHY

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Aims: For surgical procedures on mandible involving the posterior such as dental implant surgery, impacted molar extraction and sagittal split ramus osteotomy, it is important to be familiar with the details of the retromolar canal. The retromolar canal might conduct accessory innervation to the mandibular molars or contain an aberrant buccal nerve. The purpose of this study is to evaluate the incidence of the retromolar mandibular canal using cone beam CT.

Methods: A retrospective study using cone beam CT images was performed to evaluate retromolar canal in mandible of 102 patients. Both right and left sides were studied (n = 204). Axial, sagittal, cross-sectional and panoramic images were evaluated, and three-dimensional images were also reconstructed and evaluated, as necessary.

Results: Of the 204 sides, 11 (10.78%) demonstrated a retromolar canal. One of the patients showed bilateral retromolar canal.

Conclusion:: The clinician is advised to preserve this anatomic variation when performing surgery in the retromolar area and to consider additional locoregional anesthesia in the case of failed mandibular block anesthesia.

206. EVALUATION OF LATERAL ATLANTODENTAL INTERVAL IN A TURKISH PEDIATRIC POPULATION USING CONE BEAM COMPUTED TOMOGRAPHY

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Purpose: The atlantodental interval, including the lateral atlantodental interval (LADI) and anterior atlantodental interval (AADI), has been widely used for the evaluation for atlantoaxial instability.

Interpretation of imaging studies of the pediatric cervical spine is challenging. Numerous anatomic and developmental variants and factors such as ligamentous laxity, weak neck muscles, horizontal facet joints, and synchondroses contribute to unique pediatric patterns of injury and interpretive challenges. Visualization of craniocervical region can be obscure and often are hard to diagnose on conventional radiography of the cervical spine. This study consists of anatomic research of pediatric atlantodental interval using 3D CBCT images reconstructed form a volumetric rendering program.

Methods: 94 sides of 47 subjects ranging in age from 7 to 18 years who had craniofacial CBCT scans were retrospectively investigated. CBCT images were taken for various purposes such as paranasal sinus examinations, or orthodontic purposes. The mid-sagittal and mid-coronal image of the dens were chosen for measuring parameters as follows AADI, LADI, LADI asymmetry: the absolute value of variance of left LADI and right LADI. Pearson Chi square and Student t-test was performed for statistical analysis among age, gender, localization and measurements ($p<0.05$).

Results: The AADI was found to be 1,2 ± 0.48 mm in boys and 1.22 ± 0.44 mm in girls without a significant difference ($p>0.05$). The left LADI was found to be 1.56 ± 0.22 mm, and the right LADI was 1.42 ± 0.42 mm in boys, while the left LADI was 1.54 ± 0.43 mm and the right LADI was 1.57 ± 0.42 mm in boys.

Conclusions: The current study shows that LADI asymmetry can also be in pediatric patients without any cervical spine abnormalities. CBCT can be powerful tool for examination of this zone with capable of making measurements and 3D representations of the region with less ionizing radiation.

207. PAROTID SIALOLITHIASIS IN STENSEN'S DUCT: CASE REPORT

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Introduction: Sialolithiasis is the most common disease of salivary glands. It is characterised by the obstruction of salivary extractory duct due to the formation of sialoliths resulting dilation and painful swelling in glands. (2). The present study reports the case of a 53-year-old woman patient complaining swelling and pain in the left parotid area of her face continuing for a week. Once the patient was diagnosed, the sialolith was surgically removed and histopathologically introduced.
Case summary: Sialography is a valuable diagnostic procedure in the work-shop of diseases with major salivary glands. It is a tecnique appropriate to examine the activity of gland and detect the destruction of the walls, duct system and sialoliths. As an opaque medium LİPİODOL ULTRA FLU. 480mg/10ml. 1 flacon was used for owing both to its viscosity and its non-irritating nature. The traditional tecnique of sialography is careful injection of small amounts of contrast material up to 0,5-2cc.The oral surgoen make the injection with a syringe trough a cannula placed in the ostium of the Stensens' duct. Then led the patient immediately to the Oral and Maxillofacial Radiology department. The plain parotid series included one panoramic, anteroposterior and lateral oblique views are obtained. The location and size of the calculus discharged medical theraphy; according to this we planned removal of the sialolith an intraoral approach for surgical excission. Following the surgical operation the inorganic part of the sialolith was analyzed using scanning electron microscopy (SEM).
Conclusion: The purpose of this review paper is to discuss the imaging modalities avaliable for assesment of the major salivary glands and to assist the dentists for managing patients with salivary disorders.

208. ERGONOMIC CONDITIONS AT THE WORKPLACE ON THE HEALTH AMONG DENTAL CARE PROFESSIONALS

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Aim: The Aim of the study is to assess the influence of the ergonomic conditions at the workplace on the health among dental care professionals. It was specially created to emphasize the importance of the ergonomic conditions, posture of the DCP and safety at work at the dental practice.
Methods: The total number of the DCP that were subjected to the study has been 53 that vary in gender, age and working profile. For the purpose of the study and collecting more detailed data it was created a special questionnaire. As **Methods:** also were used interviews- one on one, and interview with a focal group that was consisted with representatives from each of the DCP specialties. The obtained **Results** were statistically evaluated including the use of the Pearson chi-square test.
Results: The adequate ergonomic conditions were presented in less than half of the dental practices, i.e.: 47.17% were completely ergonomically equipped and 52.83% were not. Pearson chi-square test showed following results DCP working in non-ergonomic conditions showed statistically significant higher number of injuries at work- needle sticks /sharps injuries ($p < 0,001$) than the DCP working in adequate ergonomic conditions- almost 3 times more. The situation was almost the same when considering the MSD. The numbers of MSD among DCP in the practices without adequate ergonomic conditions were triple to the MSD among DCP in the practices with well-established ergonomic design. ($p < 0.001$) The statistical evaluation demonstrated that injuries at work occurred more often among DCP with stress, than among DCP that denied stress at work. ($p < 0.001$)
Conclusions: The presented results confirmed the influence of the ergonomic conditions at the workplace on the health among dental care professionals and emphasize the role of the preventive measures in promotion of health and safe workplaces.

209. MAIN BARRIERS TO DENTAL HEALTHCARE SERVICES AMONG ADULTS OVER 20 YEARS IN BULGARIA

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Aims: To determine the level of the observance of the preventive mode among people over 20 years in Bulgaria as well as the role of the barriers to accessing dental healthcare. **Methods:** An epidemiological research was conducted involving 1636 persons from thirteen cites in Bulgaria. The average age of the respondents was 39.6 years and 894 (54.6%) were male. **Results:** We found that 744 (45%) from people observed the preventive dental mode. For 69 (4.2%) of the investigated persons the main barrier to access was the distance from the dental surgery; 356 (22%) had no complaints; the cost of treatment was a significant barrier for 187 (11%) of

responded people and the fear from dental treatment - for 123(8%).**Conclusions.** As a **Conclusion:** we could say that it is a small proportion of these people who follow the preventive dental mode and additional measures are needed for reducing the role of the barriers to dental healthcare.

210. MOLAR INCISOR HYPOMINERALISATION (MIH)

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Aim: Eighteen years old female patient was diagnosed with MIH. This paper will present the possibility of modern dentistry in treatment of this condition, step by step. The advantage was given to minimally invasive methods, by the use air abrasion.
Methods: The treatment started with tooth bleaching. The tooth print has been taken by alginate, and the tray has been made. The bleaching has being done with carbamid- peroxide gel concentration 10%, 15% and 20%, in duration of 30 days. After the bleaching the teeth have been treated with micro abrasion. Hypomineralisations of enamel which could not be cured with bleaching and micro abrasion have been removed with high – turage machines, and suitable size drills. Then the composite material (GC - Gradia) has been placed, according the manufacturer's directions.
Air abrasion is micro abrasive technique performed with special apparatus, where using compression method, thin air with particles of aluminum trioxide and silicium got out through work continuation. A special convenience of this minimal invasive method is that the whole thickness of hypomineralised enamel can be removed and that the preparation for positioning of thin composite veneer can be made.
Conclusion: This method is easy and acceptable for patient and dentist, and handy this method is to achieve most sophisticated aesthetic effects using contemporary materials.

211. IMPACT OF POSTURES IN THE WORK OF A STOMATOLOGIST (DENTIST)

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The aim of the study: Posture is the position of the doctor during his professional activity. An accurate posture defines a positive ergonomy for the professionist.
The Aim of this analytical cross-sectional study was to evaluate the postural changes of dentists of different ages and also to give specific recommendations to avoid various anatomical body injuries.
Methods: The investigation was carried out with a survey containing targeted questions about the different postures at dentist's work and different kinds of pain incurred. A handrit (100)dentists from 23-63 ages (sufficient number) were interviewed on this purpose, whom were issued to these changes.
Results: The result of this study is that the dentist worked for a long period of time and sistematicly in incorrect positions. This study showed that 53% of the doctors sometimes had trouble or pain at cervical tract and 40% at the lumbar section. From the questionnaires was showed that 21% of old age professionals still work standing and these were the most complaining contigent.
Conclusions: Having observed significant changes in the dentist's physical health , we recommended the right way for a correct posture and an active life combinated with a relevant physiotherapy advice.

212. THE RESULTS AFTER A FLUORIDATION CAMPAIGN ON STUDENTS' ORAL HEALTH KNOWLEDGE AND BEHAVIOUR

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Aim. The Aim of this study was to evaluate the results of a fluoridation campaign on the students oral health knowledge and attitudes. Noticing that the caries prevalence is higher and the dental care lower on the ages from 6 – 13 years old, we choose the pupils of these age (3rd grade of kindergarten till 8th grade).
Methods. During the period of time March - June 2011 was made the cartelization and the fluoridation of **6064** kids of **17** kindergartens and **23** schools of the private and public system of the region of Pogradec.
Results. The results of the pre- and post- campaign survey yielded an improved understanding of what students in Pogradec know about oral health, what attitudes might influence their behavioral decisions, and finally a better appreciation for what the students are actually doing to prevent cavities and gingivitis. The knowledge data indicated that any health education and promotion should emphasize the benefit of fluoride in preventing cavity formation. Also, while students understand sweets are harmful to teeth, they have a lower level of understanding that soda and juice drinks are also harmful to teeth.
Conclusion: Education should also work to improve attitudes towards routinely visiting dentists as a method of prophylaxis against dental cavity formation as opposed to viewing dentists as a mechanism to repair existing conditions. This same sense of prevention should be emphasized with consuming a healthy diet (less sweets and sodas) and deliberately getting fluoride treatments from their dentists.

213. DEMOGRAPHIC PROFILE AND FUTURE EXPECTATIONS OF STUDENTS ENROLLED IN A TURKISH PRIVATE DENTAL SCHOOL

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Introduction: The purpose of this study was to gather information about the social and demographic profile of students enrolled in a private Turkish dental school.
Methodology: Anonymous questionnaires were distributed to 278 students. Socio-demographic information was obtained which included age, gender, marital status, residence type, familial backgrounds, nationalities, type of high school from which the student graduated from, spoken languages and parents' education. Questions were also asked about the students' first choices during university examinations, reasons for preferring dentistry as a career, the presence of a dental or medical professional among parents, students'prospective goals and future expectations in their career.
Results: Two hundred and twenty-nine students returned the forms with an overall response rate of 82 %. One-hundred and fifty (65.5%) were females and 79 (34.5%) were males with an average age of 21.62±1.58. First degree relative (mother+father+sibling) had the greatest influence on the students about choosing dentistry as a career. Fathers and mothers had similar influenceson the students' decision about choosing dentistry (45.9% and 46.6%, respectively). Humanistic feelings as well as reasonable working hours were the predominant reasons that motivated females to become a dentist ($p<0.05$). Also, academic interest, interest in a medical field were significantly influencing factors for female students ($p<0.05$, $p=0.001$, respectively). One-hundred and ninety-seven students (86%) expressed their goal in the profession as specializing in a specific branch of dentistry. Although, 41 % of the students were of actually Istanbul origin, 82.5 % indicated that theywished to perform their profession in Istanbul.
Conclusion: Studies comprising a wide range of universites are warranted to draw a general **Conclusion:** regarding the profile of Turkey's future dental work force.

214. ORAL HEALTH STATUS OF CHILDREN AGED 6-12 LIVING IN THE DANUBE DELTA

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Aim: The Aim of the study was to investigate the oral health status of children aged 6-12 living in the Danube Delta, a deprived area of Romania with no or limited access to health services.
Methods: A cross-sectional study was conducted in all children aged 6-12 years old living in the Danube Delta Biosphere Reserve, meaning 595 children. The research protocol was approved by ethical local authorities and by each individual school. Free informed consent from each parent or guardian was received for each child included in the study. All children were clinically examined based on the World Health Organization (WHO) 1997 criteria. Dental caries, periodontal (gingival) health, oral hygiene, orthodontic status and dental fluorosis were assessed.
Results: The overall mean DMFT was 2.01 (range 0 – 13). 32.9% of children had caries free permanent teeth. The mean DMFT for 12 year-olds was 2.46. Gingival bleeding was found in 32.8% of the children and oral hygiene worsened with age. Only 8% of 12-year-olds were free of dental plaque. The need for orthodontic treatment was low (89% of children presented an IOTN score of 1 or 2) and only 2% had any noticeable fluorosis.
Conclusions: The oral health status of children living in the Danube Delta Biosphere Reserve can be classified as poor, due to the low number of caries free children and the high prevalence of children with gingival bleeding and poor oral hygiene. Malocclusion and fluorosis do not appear to present a public health problem for this population. In order to reach the WHO oral health goals special health education programs are necessary for the children living in this poor economic development region, with limited access to dental services.
Acknowledgements: As far as the authors are aware, there is no conflict of interests.

215. JOB SATISFACTION IN DENTAL PRACTICE IN BULGARIA

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Aim: To determine the level of job satisfaction in Bulgarian dentists' practice and the influence of some socio-demographic and economic factors.
Methods: A questionnaire was mailed to a random sample of 200 dentists from five cities in Bulgaria, stratified by gender, age groups, geographic area and perception of income, selected from the 2011 Bulgarian

Dental Association directory. The study was conducted in 2012 Jan (response rate 31%)

Results: The level of overall job satisfaction was 63%. We found that males had greater levels of job satisfaction (76%) than females (56%); the dentists in the age group 46-55 were the most unsatisfied of the dental practice (47%) in comparison with the other age groups; dentists working in small towns and non-urban areas seemed to be more satisfied (69%) than these working in big cities and the capital (50%). The respondents that declared very good and good income were more satisfied (64%) than their colleagues with insufficient income from dentistry (42%).

Conclusions: Differences existed between male and female dentists; metropolitan and non-metropolitan dentists, dentists of different ages and dentists with higher perception of income. Such differences should be addressed in order to improve recruitment and retention rates of dentists. An ongoing research concerning dental working practices and professional environment factors is needed to establish more precisely the levels of dental job satisfaction.

216. THE EFFECT OF THE INTERNET ONDENTAL PRACTICE IN BULGARIA

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Objectives: This pilot study sought to identify the effects of the Internet upon dental services market and dentist-patient communication.

The Aim was to determine the use dentists themselves make of the Internet and their opinion on representing the delivery of oral care on the Internet as a commercial product.

Methodology: Data were collected via a self completed 24 item questionnaire, given to a random sample of 110 dentists on a regular meeting of dentist for continuing dental education in Sofia.The Internetversion was sent to a random sample of 120 dentists on the Bulgarian Dental Association register. Total number of analysedquestionnaires was 127.

Results: Intotal107 (97%) of the directquestionnaireswereturned and 20(16%) of the Internet version.79% of the inquired dentists statedthatpatientshadaskedthemaboutmaterial ofrelevance to dentistryobtainedfromthe Internet.The most popular topics were aesthetic procedures and implants. 59% considered the Internet as usuful source for oral health information. 81% of the inquired dentists agreed that patients often interpreted wrongly health information on the Internet and had inappropriate demands andexpectations. The shortage of reliable web sites in Bulgarian language for oral health education was the reason why 41% had never recommended the Internet source to their patients. However 97% used the Internet for their own Continuing Professional Development. From 127 inquirees only 28 had their own dental web page. 18% claimed to use facebook and 35% e-mail to communicate with patients. 82% didn't approve representing the delivery of oral care as vouchers on the Internet. However only 39% knew that this was an offence against the health regulations and the professional ethics code.

Conclusions: Generally perceptions were that the Internet was a useful source for oral health information. Sometimes patients misinterpreted it and had inadequate demands and expectations for treatment **Results.** Attitudes about e-mail and facebook as professional networking were quite skeptical. The delivery of oral care on the Internet as a commercial product was considered as undermining the reputation of the profession.

217. SEROPREVALENCE OF HEPATITIS B IN PATIENTS OF ANKARA UNIVERSITY DENTAL FACULTY POLICLINICS

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Introduction: Hepatitis B is a worldwide infectious inflammatory illness of the liver caused by the hepatritis B virus that can lead to cirrhosis and hepatocellual carcinoma. This infection is widespread and one of the obstinacy viral disease in Türkiye too.

Dentists and the other dental clinic personals are members of the high risk group for hepatitis B infection since they contact with patients' blood or body fluids. Considering these findings, HIV, HCV and Hepatitis B blood screening assays are being used in our faculty.

In this study, we determined the seroprevalance of hepatitis B of the patients of our faculty within year 2011 and also evaluated the result of questionnaires filled by patiens who are suspected to be chronic carriers of hepatit B viruses.

Method: Venous blood samples were tested for hepatitis B surface antigen (HBsAg) by Enzyme-Linked Immunosorbent Assay (ELISA) for all patients.

Results: In our study, hepatitis B seroprevalance has been determined and compared in 13,762 patients with different suspected oral diseases of our facultys dental clinics between January 2011 and December 2011. HBsAg was found positive (+) in the serums of 279 patients. **Results** of questionnaires filled by patiens who are suspected to be chronic carriers of hepatit B viruses showed that, 17 patients out of 64 were aware of their conditions, while 47 Patients out of 64 found out for the first time that they were chronic carriers of hepatit B viruses.

Conclusion: The prevalence of HBsAg was found to be 2.02 % among our patients who are residents of Ankara. The ratio is lower than the seroprevalance in Ankara and this is assumed to be related to the patients of this study

group who give more emphasis on oral and dental health. We interviewed with 64 patients out of 279 and 17 of them knew that they were contaminated with hepatitis B viruses. But the other 47 patients learned that they were contaminated with hepatitis B viruses from us for the first time. Hepatitis B is a disease characterized the long period of time without symptoms. We know that the chronic carriers of hepatitis B viruses can contaminate the healthy persons during this period. Based on this data HIV, Hepatitis B and Hepatitis C tests must be used in hospital and the other health corporations.

218. DENTAL TREATMENT NEEDS OF THE ADULTS OVER 20 YEARS IN BULGARIA

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Aim: The main objective of the study was to establish the objective needs for dental care of the adults over the age of 20.
Methods: 1636 people were examined (54.6% male and 45.6% female) from thirteen cites in Bulgaria. **Results:** It was found that each examined person had on average 1.96 untreated decayed teeth, one tooth with pathological mobility and 2.22 unrecovered prosthetic missing teeth. We found that 24% of the investigated people had relic radices and highly destroyed teeth.
Conclusions. From the Results of the study it can be concluded that it is necessary to develop and adopt a national strategy for dental care and to confirm the strategy of health promotion as a basis for health-related quality of life.

219. OCCLUSAL CONSIDERATIIONS IN IMPLANT PROSTHESIS: A CASE REPORT

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In this case report it is aimed to discuss the importance of implant occlusion for implant longevity. Osseointegrated implants, unlike natural teeth, react biomechanically in a different fashion to occlucal force due to lack of periodontal ligament. Dental implants may be more prone to occlusal overloading, which is a cause for peri-implant bone loss and failure of the implant prosthesis. Occlusion strategy and occlusal adjustment will have a major influence on the risk of occlusal overloading. To eliminate or reduce the excessive stress at the peri-implant bone is a goal accomplished by balansing the whole arch, reducing occlusal contacts to the area of the implant supported regions. This occlusal philosophy of implant prosthesis has been referred to as implant-protected occlusion. We conclude that a dentist must consider not only the surgical phase of placing implants, but also the prosthodontic rehabilitative procedures. This poster presents cases with different type of occlusion.

220.PHOTODYNAMIC THERAPY OF ROOT CANALS WITH POLYMICROBIAL INFECTION *EX VIVO*

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Aim: Was tested PDT in the root canals infected with *Enterococcus faecalis* and *Candida albicans ex vivo*.
Introduction: Bacterial infection plays an important role in dental pathology therefore the main goal is the elimination of infection. Elimination of pathogens from root canals during endodontic treatment is difficult, so PDT is coming as an alternative treatment.
Methods: Seventy six extracted single-rooted teeth were collected and stored in saline solution. Teeth were gathered from QKSUK Prishtina. Crowns were removed using a diamond disc and the roots were shortened to a lenght of 15 mm. The canals were enlarged to an apical size of #40 using Kerr files (Maillefer Instruments SA, Switzerland) and irrigated with 3% sodium hypochloride. Teeth were sterilized with absolute alcohol and than rinsed with 17% EDTA. Root canals were infected with 5 Mc Farland *E. faecalis* (ATCC 29212) and *C. albicans* (ATCC 60193) and incubated at 37 °C for 7 days. After incubation was applied Photosenziter into root canal for 1 minute. Then was used HELBO laser in intervals of 1, 3 and 5 minutes for *Enterococcus* and *Candida*. After laser application root canals were irrigated with 2.4 ml PBS and 1mM EDTA. For detection of bacteria was aplied flow cytometry using BD Cell Viability Kit (BD Biosciences, USA).
Results: Forty three canals were included in the results. Twenty teeth were inoculated with *E. faecalis* while twenty three with *C. albicans*. Others were used as controls. For both microorganisms we have showed that laser treatment destroys them at all intervals. The best dezinfection was observed at longer application with PDT.
Conclusion: PDT is an effective mean in destroying microorganisms in infected root canals. Our results *ex vivo* suggest that PDT is more effective in 5 minutes of application.

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