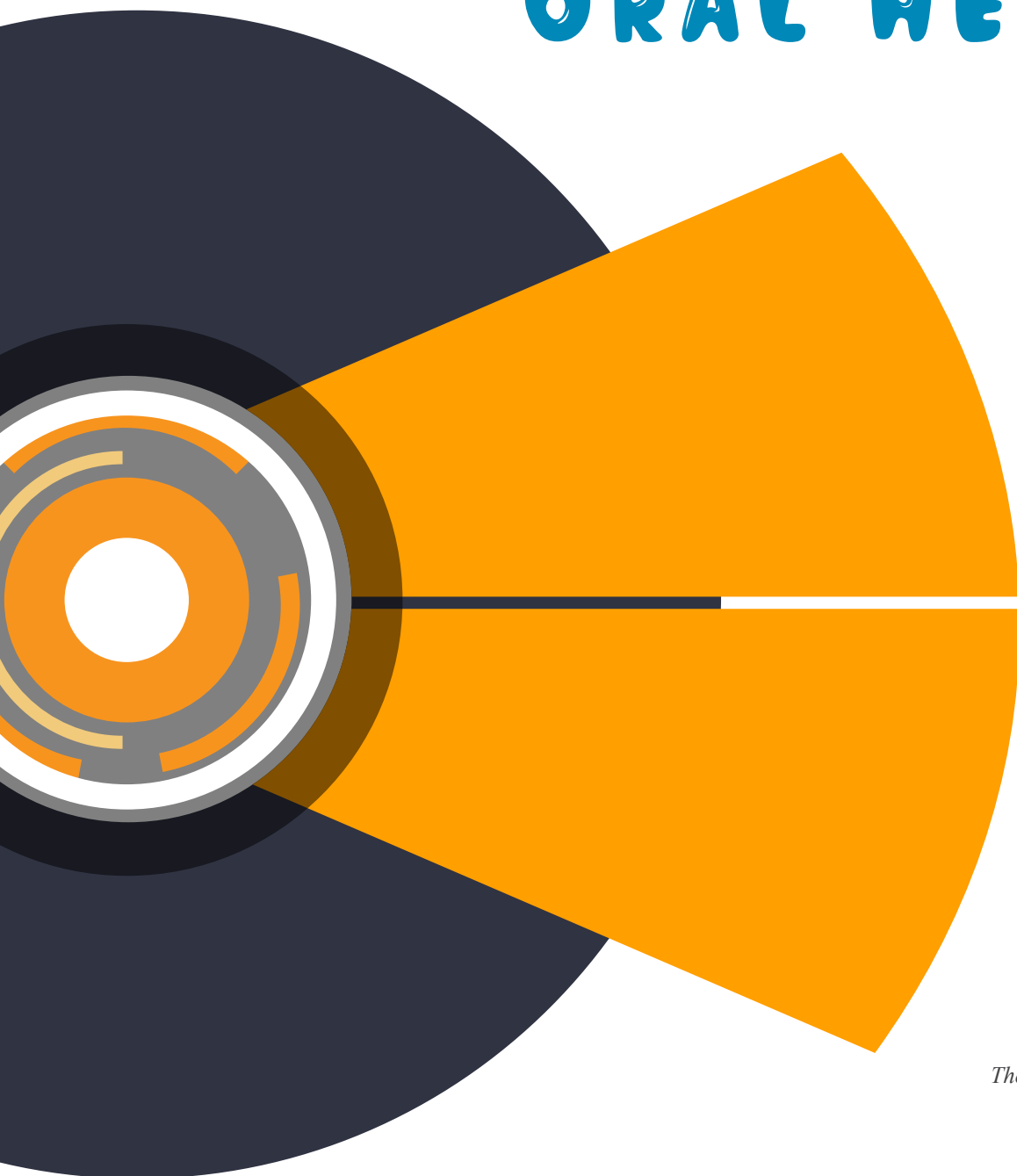


2nd International Conference on

DENTISTRY *and* **ORAL HEALTH**



*Theme: The Multifaceted Aspects
of Dentistry*

SEPTEMBER 20-22, 2018
ROME, ITALY

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2nd International Conference on

Dentistry and Oral Health

Theme:

The multifaceted aspects of dentistry

SEPTEMBER 20-22, 2018
ROME, ITALY

ICDO 2018



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New York Medical College
USA

Thank You
All...

Welcome Message



Dear Attendees, Presenters, Organizing Committee
and Distinguished Guests

The invitation to write this welcome message is both an honour and a privilege and as such I am very grateful to the Organizing Committee of ICDO 2018. On behalf of the Organizing Committee I would like to welcome you to the historic City of Rome as well as the Conference itself, where you will have the opportunity to listen to internationally recognised Speakers on a wide range of topics. There will also be an opportunity for fellow researchers to present their research to their colleagues, which in turn will



help foster cooperation between colleagues across the research world. I hope that you will not only enjoy the conference but also establish links for future research as well as foster friendships that will endure for years to come.

DG Gillam

David Gillam
Queen Mary University of London, UK

Welcome Message



Dear colleagues we would like to welcome you to the 2nd International Conference on Dentistry & Oral Health (ICDO 2018) which takes place from the 20th to the 22nd of September in Rome, Italy.

Worldwide renown specialist will lecture about Dentistry and Oral Health. You will be updated to the newest trends and research results in these fascinating professional fields.

I myself will lecture about my more than 40 years' experience in non-vascularized and vascularized augmentation techniques and their alternatives with short and 5 mm ultrashort implants. After the lecture you will be able to decide if there is a



necessity to perform successful bone transplantation operations or to change to ultrashort implants.

We would be happy to welcome You in Rome!

Rolf Ewers

Rolf Ewers, MD DMD Ph.D.
University of Vienna, Austria

Welcome Message



Dear Participants of ICDO 2018!

During the past decades, Dentistry and Oral Health has become a very broad and diversified specialty. Technical progress and developments have enabled a wide range of innovations and therapeutic options. Besides medical knowledge and surgical skills, also technical know-how is required to provide treatments according to the highest clinical standards. Consequently, a variety of specializations within Dentistry respectively Oral and Maxillofacial Surgery has emerged, often requiring interdisciplinary approaches in research as well as in clinical routine.



Regardless of the importance of specialization, it is always essential to overview the complete treatment

strategy. This conference – held in the beautiful historical city of Rome – will be an ideal opportunity to share experience between experts in all the sub-specialities of Dentistry and Oral Health.

Let's enjoy this conference!

Prof. Kurt Alexander Schicho, MD DSc
Medical University of Vienna, Austria

Welcome Message



Dear participants of ICDO 2018,

It will be great pleasure to welcome you to the 2nd International Conference on Dentistry and Oral Health (ICDO 2018) in Rome, September 20-22 2018.

We are delighted to announce that we have a very special program planned for you, and we are also excited to meet and share experiences with you all, researchers, young scientists, academicians and dental practioners, partners and leaders, who use clinical evidences and innovation to advance the theory and practice in the field of dentistry and oral health.

Do not miss this unique opportunity to learn and

network in this international gathering. The organizing committee will be all over the conference throughout the three days warmly welcoming each and every one of you.

Enjoy the conference and the city of Rome.

Professor Porto Isabel Cristina Celerino de Moraes
Federal University of Alagoas
Brazil

Keynote Speakers



Baldi Domenico
University of Genova
Italy



Daniel Kandelman
Universite de Montreal
Canada



David Gillam
Queen Mary University of
London
UK



Fouad Abduljabbar
King Abdulaziz medical City
Saudi Arabia



In-Sung Luke Yeo
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Steven J Traub
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Biology
USA



Zvi G. Loewy
New York Medical College
USA

About MAGNUS GROUP

Magnus Group (MG) is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conference and workshops can be well titled as 'ocean of knowledge' where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 80 different countries and 688 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the world, without compromising service and quality.

About ICDO 2018

ICDO 2018 will provide a dedicated platform to peer researchers, young inspired scientists, academicians, and industrialists to meet, discuss and share the knowledge that's still more to be revealed in the field of dentistry and oral health. The series of talks, poster presentations, workshops, discussions and networking events will keep participants engaged in learning and making new connections at this Dental conference.

Scope of the Dental Conference 2018: ICDO aims to provide clinicians, scientists and students of dentistry with a knowledge transfer platform. The speakers and delegates come from academia, industries, private and government laboratories across the world.



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Note: ICDO 2018 participants will receive a benefit of 50% waiver on article processing charges.

TABLE OF CONTENTS

| | |
|---|----|
| The use of bioactive products in Dentistry: A review | 19 |
| <u>David G Gillam, Queen Mary University of London, UK</u> | |
| Augmentation techniques, long-term results and their alternatives | 20 |
| <u>Rolf Ewers, University of Vienna, Austria</u> | |
| Facial Trauma | 22 |
| <u>Steven J Traub, American Institute of Oral Biology, USA</u> | |
| Prevention of healthcare associated infections (HAI) as promoted at two target public, funded hospitals of the Philippines and a review of incidental HAI, risk to dental practitioners & patients | 24 |
| <u>Jaime A Yrastorza, Colorado Oral-Maxillofacial Surgeon, Retired, USA</u> | |
| Treatment of the severely resorbed edentulous maxilla using extra-maxillary anchor points | 26 |
| <u>Carlos H. Letelier, The Center for Oral Surgery of Las Vegas, USA</u> | |
| The periimplant soft tissue as a keyfactor for a long-time success | 27 |
| <u>Jan Klenke, Private Practise, Germany</u> | |
| A Coraline-derived peri-Implant bone graf | 28 |
| <u>Mark C.Perry, Dentistry on King, Canada</u> | |
| A Coraline-derived peri-Implant bone graf | 30 |
| <u>Sandra Ammonn, Dentistry on King, Canada</u> | |
| Endodontic complications: Prevention and management | 32 |
| <u>Andreas Simka, German Military Hospital, Germany</u> | |
| Conventional endodontic therapy in the treatment of extensive radicular cyst | 33 |
| <u>Melian Anca, University of Medicine and Pharmacy Gr.T.Popa Iasi, Romania</u> | |
| Current leanings in traumatized teeth | 34 |
| <u>Camila Paiva Perin, University Tuiuti do Parana, Brazil</u> | |
| The Importance of CT scanning in the modern dentistry and its indications in dental specialties | 35 |
| <u>Alessandra de Freitas-e-Silva, University Center of Distrito Federal, Brazil</u> | |
| Pattern of clefts and dental anomalies in six-year old children: A retrospective observational study in western Norway | 36 |
| <u>Paul K. Saele, University of Bergen, Norway</u> | |
| Bone and intraosseous lesions of the oral region: A 50-year retrospective study in São Paulo, Brazil | 37 |
| <u>Neliana Salomao Rodrigues, University Center Unifaminas, Brazil</u> | |
| A novel fluoride coating for early-stage caries prevention | 38 |
| <u>Agron Hoxha, Queen Mary University of London, United Kingdom</u> | |

| | |
|--|----|
| Comparative study of health information on the internet about caries, halitosis and mononucleosis | 39 |
| <u>Cristiane lopes miguel, Fernando Pessoa University, Portugal</u> | |
| Teeth belaching; from Ato Z: Keep a bright smile | 40 |
| <u>Randa Essam Shaker, King Faisal Specialist Hospital and Research Center - Jeddah, Saudi Arabia</u> | |
| The challenge of successful root canal treatment | 41 |
| <u>Nehal Sharaf, National Research Center, Egypt</u> | |
| Delivering Mobile Dentistry to the Geriatric Population - The Future of Dentistry | 42 |
| <u>Jim Chung, Royal College of Dental Surgeons of Ontario, Canada</u> | |
| Enamel Matrix Derivative (EMD) adsorption at dental implant-relevant interfaces | 44 |
| <u>Abdullah Holdar, Queen Mary University of London, United Kingdom</u> | |
| Understanding the difficulties in using artificial teeth for pre-clinical teaching | 45 |
| <u>Alexander Cresswell-Boyes, Queen Mary University of London, United Kingdom</u> | |
| Trial on 5% NaF varnish real effectiveness on high caries risk patients when we consider SMs level influence. Real effectiveness of a daily international dental preventive practice: a new question! | 46 |
| <u>Jacques E Veronneau, Servidence, Canada</u> | |
| Antibiotic prophylaxis pattern of Basque dentists in the placement of dental implants | 47 |
| <u>Iciar Arteagoitia, BioCruces University of the Basque Country, Spain</u> | |
| Reconstruction of mandibular alveolar defects with chin grafts for dental implant placement. A case report | 48 |
| <u>Mojtaba Bayani, Arak University of Medical Sciences, Iran</u> | |
| Barriers and facilitators to dental care adherence during pregnancy: An intervention study in a primary health care service | 49 |
| <u>Marcia Helena Baldani, State University of Ponta Grossa, Brazil</u> | |
| Canal transportation and centering ability of single file systems using cone beam computed tomography | 50 |
| <u>Seyed Mohsen Hasheminia, Isfahan University of Medical Sciences, Iran</u> | |
| Extramedullary manifestation of Acute Myeloid Leukemia in mandible: Importance of early diagnosis of Childhood Cancer | 51 |
| <u>Juliana Francisca Grossi Heleno, Albert Einstein Hospital of Education and Research, Brazil</u> | |
| Smoking cessation in a dental setting. Comparison of the cost-effectiveness of a high and a low-intensity treatment at long-term follow-up in a randomized trial | 53 |
| <u>Eva Nohlert, Centre for Clinical Research, Uppsala University and Region Vastmanland, Sweden</u> | |
| Tomographic evaluation of remaining residues after endodontic retreatment and its relation with dentin permeability | 54 |
| <u>Camila Paiva Perin, Universidade Tuiuti do Paraná, Brazil</u> | |
| An X-Ray microtomography measurement of a novel bioactive glass varnish in prevention of white spot lesions. (A comparative acid challenge study) | 55 |
| <u>Thaer Jaber Al-Khafaji, Queen Mary University of London, UK</u> | |

| | |
|---|----|
| A proposal for OnabotulinumtoxinA injection into temporal area for treatment of chronic migraine | 56 |
| <u>YounJung Park, Department of Orofacial pain & Oral Medicine, Yonsei University College of Dentistry</u> | |
| Antimicrobial prescribing across the Berkshire Community Dental Services | 58 |
| <u>Saranjeet Lall, Berkshire Healthcare NHS Foundation Trust</u> | |
| Investigation of the epidemiology of Holoprosencephaly and single-stage lip and the columella reconstruction at the University of Pretoria | 60 |
| <u>Su Yin Htun, Oral and Maxillofacial Surgery Department University of Technology, Jamaica</u> | |
| Quality of life following rehabilitation with implant supported mandibular prosthesis by OHIP-Edent | 61 |
| <u>Hari Parkash, AIIMS-CDER New Delhi, India</u> | |
| Tomographic evaluation of remaining residues after endodontic retreatment and its relation with dentin permeability | 63 |
| <u>Camila Paiva Perin, University Tuiuti do Parana, Brazil</u> | |
| Natural compounds. A potential approach to obtain the desirable stability of dentin-resin bond | 64 |
| <u>Isabel Cristina Celerino de Moraes Porto, Federal University of Alagoas, Brazil</u> | |
| Low-level light therapy: Current state of research and clinical applications | 65 |
| <u>Kurt Alexander Schicho, Medical University of Vienna, Austria</u> | |
| Identification and management of high carie's patients | 67 |
| <u>Daniel Kandelman, Université de Montréal, Qc. Canada</u> | |
| Motivating patients in the management of dental problems | 68 |
| <u>David G Gillam, Queen Mary University of London, UK</u> | |
| Temporomandibular disorders and headache therapy for the dental practice | 69 |
| <u>Robert J. Huvar, American College of Oral and Maxillofacial Surgery, USA</u> | |
| Correcting gingival levels to improve periodontal health & overall esthetics | 70 |
| <u>Gerald C. Green, Lancaster General Hospital, USA</u> | |
| What are the advantages of digital planning and custom orthodontic appliances in orthodontics? | 71 |
| <u>Breuning Karel Hero, University of Alabama, Netherlands</u> | |
| The provision and utilisation of domiciliary dental services for elderly people | 72 |
| <u>Alexander Schembri, University of Malta, Malta</u> | |
| Evaluation and quatification of de-and remineralization processes on dental hard tissues | 73 |
| <u>Sorin Andrian, University of Medicine and Pharmacy Gr.T.Popa Iasi, Romania</u> | |
| Evaluation of effectiveness of composite cure of three bulk fill composites in comparison with other conventional composites | 74 |
| <u>Ali Abdul Wahab Razooki Al- Shekhli, Fujairah Campus, UAE</u> | |
| Prosthetic abutments: Surface smooth or treated? A contemporary view | 75 |
| <u>Vilton Zimmermann De Souza, Sao Leopoldo Mandic-Campinas Sao Paulo, Brazil</u> | |

| | |
|--|----|
| Immediate maxillary & mandibular molar implants without grafting | 76 |
| <u>Steven J Traub, American Institute of Oral Biology, USA</u> | |
| Is oral health a priority for South Asians residing in high-income countries? | 77 |
| <u>Mehak Batra, LaTrobe University Melbourne, Australia</u> | |
| Clinical and microbiological evaluation of dental materials containing Brazilian red propolis | 78 |
| <u>Lidia Audrey Rocha Valadas Marques, Federal University of Ceara, Brazil</u> | |
| How could the thickness of the occlusal splint for temporomandibular joint disc derangement be measured? | 79 |
| <u>Ayman Hegab, AL-Azhar Univeristy, Egypt</u> | |
| Cariostatic effect of Riva star: Silver diammine fluoride without the black staining | 80 |
| <u>Wei-Te Huang, Queen Mary University of London, United Kingdom</u> | |
| Orthognathic surgery and orthodontics - A clinical view | 81 |
| <u>Marcellus Guimarães, IBPO Teixeira de Freitas BA, Brazil</u> | |
| Assessment of antimicrobial effect of Methylene Blue and Silver nanoparticles irradiated by diode laser on induced caries model (An In vitro Study) | 82 |
| <u>Mohamed Hussein Zaazou, National Research Center, Egypt</u> | |
| Characteristics of human natal stem cells cultured in allogeneic medium | 83 |
| <u>Sherine Adel Nasry, National Research Center, Egypt</u> | |
| Development, clinical and microbiological study of low abrasivity dentifrice for the control of candida albicans in dental prostheses | 84 |
| <u>Edilson Martins Rodrigues Neto, Catholic University Centre of Quixada, Brazil</u> | |
| Role of dentist in craniomaxillofacial trauma surgery case | 85 |
| <u>Su Yin Htun, Oral and Maxillofacial Surgery Department University of Technology, Jamaica</u> | |
| Perceptions, experiences, and outcomes implementing PBL (Problem- Based Learning) at the faculty of sciences of Tocantins – FACIT, Brazil | 86 |
| <u>Carollyne Mota Tiago, FACIT, Brazil</u> | |
| Minimally Invasive Implant Surgery | 88 |
| <u>Domenico Baldi, University of Genova, Italy</u> | |
| New approach in Endodontic retreatment by intentional replantation | 89 |
| <u>Fouad Abduljabbar, King Abdulaziz medical City, Saudi Arabia</u> | |
| Screw loosening mechanism in implant- Supported restoration | 90 |
| <u>In-Sung Luke Yeo, Seoul National University, South Korea</u> | |
| A comparison of different dental implant designs. Does it really make a difference? | 92 |
| <u>Gregory K. Louie, Tri Valley Implant Study Group, United States</u> | |
| Medical treatment of dental caries and periodontal disease: A new era! | 93 |
| <u>Jacques Eugene Veronneau, Servidence, Canada</u> | |

| | |
|---|-----|
| Oral health and quality of life among cleft lip and palate patients | 95 |
| <u>Paul K. Saele, University of Bergen, Norway</u> | |
| Challenges of rehabilitation with removable dentures without implants | 96 |
| <u>Newton de Araujo Holanda Gurgel, Gurgel Odontologia, Brazil</u> | |
| The diode laser in modern treatment concepts- some case reports | 98 |
| <u>Michael Schafer, Dental Office, Germany</u> | |
| Influence of chelating solutions on adhesive strength of glass fiber pins to root dentin | 99 |
| <u>Eduardo Fernandes Marques, ULBRA, Tocantins, Brazil</u> | |
| Immediate implant placement in esthetic sites: Treatment of dimensional bone and soft tissue alterations post-extraction | 100 |
| <u>Claudio Luiz Moretti Filho, University of Cuiaba, Brazil</u> | |
| Laser activated irrigation | 101 |
| <u>Barbara Skrlj Golob, Dentalni Studio, Slovenia</u> | |
| Prevention of Endodontic instrument fractures | 102 |
| <u>Israa Awad Bahaa Al Deen Al Aubi, Ajman University, UAE</u> | |
| Three-dimensional analysis of maxillary molars after intrusive forces: Randomized clinical trial | 103 |
| <u>Carollyne M Tiago, FACIT, Brazil</u> | |
| Pedicle tongue flap and temporal flap as an option for buconasal fistula closure | 104 |
| <u>Nascimento Tuanny Carvalho de Lima do, Universidade Positivo, Brazil</u> | |
| The management of ankyrotic root resorption following dental trauma: A treatment protocol | 105 |
| <u>Shaul Lin, Rambam Medical center, Haifa, Israel</u> | |
| Maxillofacial prosthetic rehabilitation experience in Nepal | 106 |
| <u>Shyam K. Maharjan, People's Dental College and Hospital, Nepal</u> | |
| Bactericidal effect of Photodynamic Therapy (PDT) in oral infections | 107 |
| <u>Ana Maria de Gois, Instituto de Fásica de São Carlos - USP, Brazil</u> | |
| Conservative approach to cysts and maxillary tumors | 108 |
| <u>George Borja de Freitas, Brazilian Association of Dentistry and Integrated Colleges of Patos(FIP), Brazil</u> | |
| The stimulation of mandibular forward development during the treatment of skeletal class II malocclusion | 109 |
| <u>Mohamed Youssef, Damascus University, Syria</u> | |

DAY 1

KEYNOTE FORUM

2nd International Conference on

Dentistry and
Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

ICDO 2018



Biography

I graduated from Edinburgh Dental School in 1977 and have been involved in Dentistry over the last 40 years. I have worked in both clinical practice and in University Dental Hospitals as well as in Industry (1998-2001) initially with SmithKline Beecham and subsequently with Block Drug Company. From 2003 to 2008 I worked with a Clinical Research Organization and currently I am a Senior Clinical Lecturer in Periodontology at the Bart's and the London School of Medicine and Dentistry QMUL in London (2009-). My main interests are in the area of the Management of Dentine Hypersensitivity and I have published over 85 papers on a number of dental topics as well as contributing to several book chapters.

The use of bioactive glass products in dentistry: A review

David G Gillam BA, BDS, MSc, DDS, FRSPH, FHEA, MIC

Queen Mary University of London, UK

The concept of bioactivity is currently prominent with Manufacturing claims about the success of their product the question, however as to whether some of these products are truly bioactive in nature has been challenged in that there appear to be little or no evidence of an apatite-like material present on its surface. For example, according to Jeffries (2106) the current definition of bioactivity in dental materials is the property of a biomaterial to form apatite-like material on its surface when immersed in a simulated body fluid (SBF) for a period of time. Bioactive glass material was developed by Larry Hench and his team in the late 1960's, initially the original 45S5 consisting of a calcium silico-phosphate glass was designed for orthopaedic use, but subsequently introduced into Dentistry as a bone grafting material for periodontal surgery. Further research in the mid to late 1990's encouraged further interest in using bioactive glass in desensitizing toothpaste formulations, such as Novamin®. The initial toothpaste formulation did not however, contain fluoride as one of the ingredients but more recent formulations have included sodium fluoride with a 5% loading of the glass. Bioactive glass was subsequently incorporated into varnishes, composites, glass ionomers, dental cements, resin-based materials, root fillers, polishing pastes etc. More recently a bioactive glass (Biomim™) has been developed for several dental products by researchers from QMUL with the aim of providing a sustained low level of fluoride over time. This presentation will provide an overview of the status of bioactive glass products in Dentistry and will evaluate where there is any evidence for the claims of bioactivity from both in vitro and in vivo evidence.

Take Away Notes

- The presentation will update the audience on the status of dental materials containing bioactive glass available in dental practice.
- The presentation will include selected examples of bioactive glass products in dentistry and evaluate evidence of their efficacy from the available literature.
- The presentation should be of benefit to both early researchers and experienced researchers and it is anticipated that this short presentation will encourage colleagues to develop their interest in this area of research.



Biography

Professor Rolf Ewers is currently Chairman of the CMF Institute Vienna, Austria. Raised in Germany, he studied Medicine and Dentistry in Freiburg, Germany. His Residency was started as a first-year Surgery Resident at the Downstate University in Brooklyn, NY, USA, continuing his training as a Cranio-Maxillo-Facial and Oral Surgeon and finishing with his PhD in Freiburg, Germany. Since 1980, he was for 9 years Deputy Chairman of the University Hospital for Oral-Maxillofacial Surgery in Kiel, Germany. Until October 2012, he was for 23 years Chairman of the University Hospital of Cranio-Maxillofacial and Oral Surgery in Vienna, Austria.

Augmentation techniques, long-term results and their alternatives

Rolf Ewers, MD DMD Ph.D.

University of Vienna, Austria

The iliac crest is the Golden Standard for grafting. However, due to potential complications and operative expertise alternatives if possible should be considered.

A discussion will be presented on different ways to augment and enhance bone.

Microvascular re-anastomosed TX, Distraction Osteogenesis, Interposition and Augmentation. Due to the different degrees of vascularisation of the trans-planted material there are different resorption rates which will be discussed and shown on clinical cases and follow-ups of more than 30 years. We will explain our classification of new bone.

Class I: Revascularised bone

Class II: Distracted bone (vascularised)

Class III: Pedicled Inlay bone (non vascularised)

Class IV: BMP induction Onlay graft (non vascularised)

Class V: Onlay with autogenous bone or allograft (non vascularised)

We will demonstrate Interposition and Augmentation procedures and show our clinical experiences. Furthermore, there will be time allotted for the new frontiers of Guided Bone Regeneration and Bioengineered Bone Production in so called cell chambers as natural porous resorbable scaffolds combined with Proteins, PRP, Fibrin glue, BMP's. Experimental and clinical results will be shown and discussed.

Following clinical cases will be presented: 243 revascularised Bone TX, 151 Distraction Osteogenesis cases, 23 Immediate Expansion Osteogenesis (Pedicled Sandwich Plasties [PSP]) cases, 36 Horseshoe Le Fort I Osteotomies in severely atrophied maxillas with less than 2 mm remnant bone and 554 Sinusgrafts with 1-5 mm remnant maxillary bone, grafted with different graft materials with and without PRP. The follow-ups will be up to 28 years.

For all these groups of clinical cases we will show our prosthetic solutions.

Last but not least we will report about our studies with 4.0 x 5.0 mm ultra-short implants and diameter reduced 3.0 x 8.0 mm implants on tumour patients after micro-anastomosed fibula transplantation as well as on patients with extreme atrophy of the maxilla with less than 6 mm bone and extreme atrophy of the mandible with less than 7 mm bone.

Until now we applied on 47 patients either in the maxilla in the interantral and/or in the mandible in the interforaminal region four 4.0 x 5.0 mm or 3.0 x 8.0 mm implants.

In our over six years follow up experience we can report about extremely

good result with less than 3 % implant losses due to missing osseointegration.

Osseointegrated implants we have lost one until now.

Similar good results we also observe in patients with complicated re-implantations or in compromised bone.

Take Away Notes

- Differential diagnosis which problem can be solved and which is unable to be treated.
- Which procedure will lead to a good satisfactory result and which material may be used to enhance or produce bone
- Which prosthetic solution is best for which bone enhancement method.
- How to prevent complications and how to handle complications if they will occur in such difficult cases.
- Demonstrating alternatives to augmentation methods by using short implants with their advantages to standard length implants reducing operative complexity, morbidity and costs.



Biography

I was born and raised in Albuquerque, New Mexico (USA). I did my residency in Chicago, Illinois at Cook County Hospital, finishing in 1981. I have a private practice limited to Dento-Alveolar, Pre-Prosthetic, Implant, and Temporomandibular joint surgery, along with facial trauma and reconstructive surgery as well, my practice includes a strong emphasis on care of patients with mental and physical handicaps and deformities.

Facial Trauma 2018

Steven J. Traub, D.D.S.

American Institute of Oral Biology, USA

Today we will discuss evaluation & treatment of facial traumatic injuries: mandibular and maxillary fractures, gunshot wounds to the face, TMJ injuries, facial soft tissue injuries, and open/closed facial fracture reductions.

Take Away Notes

- The audience will be able to appropriately evaluate, diagnose & treat facial traumatic injuries.

DAY 1

SPEAKERS

2nd International Conference on

Dentistry and Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

Prevention of healthcare associated infections (HAI) as promoted at two target public, funded hospitals of the Philippines and a review of incidental HAI, risk to dental practitioners & patients

Jaime A. Yrastorza, D.M.D, M.S.

Colorado Oral-Maxillofacial Surgeon, Retired, USA

Discussion: For the past several decades, hospitalized patients have been known to risk developing infections unrelated to their presenting chief complaints or symptoms. The World Health Organization (WHO) identify those happenings as Healthcare Associated Infections (HAI); and, they are ominously regarded to be the most frequent adverse incident in healthcare, worldwide.

These occurrences arise from the invasion and multiplication of harmfully opportunistic micro-organisms such as bacteria, viruses, and parasites that are not normally present within the body at the time of hospitalization. Their propagation may be enabled by the patient's own health status or by a maze of factors that may be attributable to mal-conditions of the facility itself, to the prevailing behavioral culture of in-house healthcare providers, employee staff, and, even those of the visitors.

When HAI develop, the additional intrusion to a patient's presenting disease compounds the diagnostic and therapeutic interventions; it increases the risk in morbidity and, in alarming frequency, may lead to death.

Notably, this shared environment may also prevail to invade patients receiving care and, by cross-contamination, the staffs at other healthcare settings such as free-standing facilities for ambulatory care or out-patient care that include dental offices and their complex of providers.

Encouragingly, at a 2005 WHO First Global Patient Safety Challenge conference, studies reported a rise in success rates at restraining HAI in developed countries. However, the same uplifting HAI containing view is not yet shared by low-to middle-income countries.

Interestingly, while review of contemporary dental literature conjures an increasing awareness of HAI-risks by the dental profession, the practitioners, the staff and their patients may yet benefit from added studies on the factual risks from cross-contamination of invasive micro-organisms in a dental setting and adoption of a universally-standardized policy and protocol on containing HAI-risks.

Take Away Notes

a) having a more convincing awareness of the

- probable risk of acquiring HAI when anyone is hospitalized for whatever reason;
- gravity of HAI on the afflicted and the challenges in diagnosis
- and treatment that face the healthcare providers; and,
- the consequential hazards that healthcare facilities and their
- in-house providers beget from improper compliance to HAI-risk containment policies

b) the realization of how HAI connotes

- on the gravity in loss of lives and enormity in added healthcare costs for patients in the developed world; and, inversely,
- on the graver consequences that HAI patients and their providers are challenged to overcome in low-to middle-income countries;
- on the life-saving crusade that the protagonists assume in the
- duel to contain HAI

c) the recognition of the dental challenges to overcome HAI uniquely differ by its venue with limited parameters, such as the

- conflicting cross-contamination of offending micro-organisms in

- the dental care environment between patients and the dental team
- d) the recognition of the dental challenges to overcome HAI uniquely differ by its venue with limited parameters, such as the
- studies by dental researchers, faculties of academia, conjoined multi-regional practitioner groups and related corporations for compliance by dental practioners.

Biography

Jaime Alonso Yrastorza was born in the Philippines and since 1950 resides in the U.S. He graduated with a B.A. from University of Minnesota Duluth in 1953; and, in 1957 received a D.M.D. from Wahington University School of Dental Medicine. In 1961, completed M.S. in

Oral--Maxillofacial Surgery from Gerogetown University with associated residency training at the D.C. General Hospital and NIH--granted research in 'Histological Investigation on the Use of Polyurethane Polymer in the Treatment of Experimentally Fractured Mandibles of Dogs.' Until 1963, he served as Chief of Oral Surgery VA Hospital, Leavenworth, Kansas.

Thereafter maintained a private practice in Oral--Maxillofacial Surgery, Wheat Ridge, Colorado until his retirement in 1995. In the interlude he became a

- Diplomate, American Board of Oral & Maxillofacial Surgery
- Fellow, International College of Oral & Maxillofacial Surgeons
- Fellow, American College of Oral & Maxillofacial Surgeons
- Fellow, American College of Dentists

Treatment of the severely resorbed edentulous maxilla using extra-maxillary anchor points

Carlos H. Letelier, MD, DMD, DDS

The Center for Oral Surgery of Las Vegas, Las Vegas, Nevada. USA

Edentulism with severe maxillary resorption is a common problem that dentists have to face. For many patients, dentures are not an acceptable alternative. For most patients, if there are not medical contraindications, graftless immediate-load fixed prosthesis are possible.

We will present our 12 years of experience, and evolution, treating severely resorbed edentulous Maxillas with immediate load restorations. In particular the use of Zygomatic and Pterygoid implants will be discussed. Patient assessment, Guided and non-guided techniques, as well as potential risks and complications will be reviewed. These techniques simplify the treatment of edentulous cases, as no grafting is needed prior to implant placement. They also reduce the cost to the patient and speed up the final result.

These treatments can greatly improve patients' lives and are very rewarding for the treating doctor. For the doctors not treating these types of cases, it may open the door to a vast new group of patients and help to differentiate their practices from the competition.

Biography

Dr. Carlos Letelier has a passion for excellence that is reflected in his distinguished background and education credentials. He began his dentistry studies in Chile where he earned a DDS degree and then enrolled in Tufts University School of Dental Medicine, in Boston Massachusetts, where he graduated Summa Cum Laude with a DMD degree. He went on to complete his surgical residency and graduate from UCLA Medical School, in Los Angeles California, with both an MD and OMFS degree. He then did a cosmetic surgery fellowship with the American Academy of Cosmetic Surgery. In addition to becoming Board Certified in both Oral and Maxillofacial Surgery and Cosmetic Surgery, Dr. Letelier has taught in the OMFS residency program at Fresno's University Medical Center in California, USA.

Dr. Letelier's expertise covers a wide range of procedures from wisdom tooth extraction and dental implants to facial and dental trauma. He is well known and highly regarded for his treatment of patients with missing teeth and severe bone loss.

Dr. Letelier continues to expand his knowledge and skills by regular participation in specialty courses throughout the USA and other global locations.

The peri-implant soft tissue as a factor for a long time success

Jan Klenke

Private Practice, Germany

This lecture will start with the description of the differences between Gingiva and the periimplant mucosa. The biological with around teeth and implants will be explained. The question of the necessity of a fixed and keratinized mucosa around implants and teeth will be discussed. To that topic literature will be shown and explained to show its scientific background.

To transfer the theoretical explanations into a clinical use, the lecture will show a first clinical case. This case will demonstrate the development of a severe periimplantitis over 17 years at two lower molar implants with missing attached periimplant mucosa. The treatment of this periimplantitis will be shown supported by literature of concepts to treat periimplantitis.

As a stable mucosa around implants in the molar region is needed for a stable function of the implants, in the aesthetic zone the thickness, shape and color of the periimplant mucosa is crucial for a functional and aesthetic long-term success. The concept to receive aesthetic and stable periimplant soft-tissue in the aesthetic zone of our private practice will be shown. Therefore, clinical cases will demonstrate the procedure used in our practice in different situations. First of all, the concept of immediate implant placement in this sensible area with the different possibilities of immediate provisionalisation of the implants will be explained. An excursion into the preferred implantsystem will explain what kind of implants should be used for this kind of treatment protocol.

If an immediate implant placement is not possible – the reasons for not placing an immediate implant will be explained – the extraction technique and extraction socket treatment will be shown. The focus will be on the reconstruction of the soft-tissue.

Take Away Notes

- Despite the controversial discussion in the literature, a band of 2mm attached mucosa around implants is necessary for a long time success.
- During the recall, the soft tissue situation should be evaluated. If there is a deficit of attached mucosa around an implant, surgical correction of the deficit could be beneficial.
- In the aesthetic zone a concept of immediate implant placement could lead to a better periimplant soft tissue.
- In cases where an immediate implant placement is not possible, the soft tissue should be optimized immediately after extraction.

Biography

Dental state examination in Berlin 1993. Since 1993 until 1996, scientific assistant at FU- Berlin in the department of restorative dentistry and periodontology. Long-term internship in a maxillo-facial dental clinic. Permanent establishment in own practice in Hamburg, 1997. Since 1998 until 2000 practice with Dr. W. Klenke. Since 2000, group practice with the dentist Christian Regel. Initially, intensive national and international skill enhancement in plastic periodontology and microscopic endodontology. In 2000 and 2001 structured and certified skill enhancement implantology of the German society for dental implantology (DGZI). Since 2005, certified focus on implantology of the Federation of the implantological dentists (BDIZ) and the European Association of dental implantologists (EDI). Promotion to Dr. med. dent. Jan Klenke in 2005 at the university of Hamburg, Germany. Regular skill enhancement in the departments of implantology, periodontology, aesthetics, endontology and emergency management. In 2007 and 2008, post graduate study course in conscious sedation and pain management at the university college London. Since 2009, national and international lectures and courses in the area of dental implantology and aesthetics. Expert in oral implantology of the German Society of Oral Implantology (DGOI) In 2010, acquisition of technical qualification for dental digital CBCT.

Member in the following scientific Societies: BDIZ, DGP, DGI, DGOI, AACD.

A coralline-derived peri-implant bone graft

Mark C. Perry* B.Sc., D.D.S., A.E.M.C.A., Sandra Ammonn B.A., R.R.D.H

Dentistry on King, Canada

Marine corals have been discussed as potential human bone graM substitutes since 1979. The structure of marine coral is similar to human bone. Its components, structure and property are similar to the inorganic components of human bone. Coralline hydroxyapatite's biocompatibility is derived from the exoskeleton of the "high content calcium carbonate scaffolds."

Coralline hydroxyapatite is manufactured from marine coral. Marine coral has a trabecular structure similar to that of human bone. The benefits of Coralline hydroxyapatite include its biocompatibility, osteoconductivity, biodegradability and safety. It avoids immune rejection that may occur with the use of allografts. Its rate of action depends on the porosity of the exoskeleton and the site of implantation.

Its use as a carrier for autogenous bone grafts during oral surgical procedures including extractions, implant surgery and periodontal surgery will be presented. Coralline hydroxyapatite provides a structure and support mechanism to guide the formation of new bone. Synthesized hydroxyapatite offers poor porosity for the promotion of vascular and hard tissue. Coralline hydroxyapatite has a similar pore structure as human cancellous bone

Cases will be presented via video, still photography and radiography to demonstrate the use of a Coralline hydroxyapatite bone graft to aid in the repair of alveolar bone in extraction sites, implant surgical sites, cases of peri-implantitis and periodontal surgery. A step-by-step guide will be exhibited so that clinicians may begin to apply this procedure in their own practice.

Coralline Hydroxyapatite/Autogenous Bone Graft Procedure:

1. Collect autologous bone graft material, utilizing the Osseous Coagulum Trap, from an extraction procedure, surgical implant procedure and/or a suitable donor site.
2. Mix the Coralline hydroxyapatite graft material with the autologous bone (from the Osseous Coagulum Trap) and autologous blood.
3. Utilizing a suitable carrier place the autologous/Coralline bone graft into position in the alveolus to create a stable graft location in order that osteoconductivity may begin immediately. Ensure sutures are not under high tension, do not over-fill the alveolar cavity with the graft, and prescribe antibiotics and an anti-bacterial mouth rinse post-operatively.
4. Allow four to six months of healing to occur before determining radiographically if the implant and graft material are fully osseointegrated.

There are four major features of Coralline hydroxyapatite:

1. Biocompatibility
2. Strength similar to bone.
3. Promotion of remodelling.
4. Bioactivity- it attracts and hosts

Take Away Notes

- Autologous bone should be preserved utilizing the Osseous Coagulum Trap
- Coralline hydroxyapatite is a suitable biocompatible bone graft material.
- Coralline hydroxyapatite should be mixed with autologous bone graft material and autologous blood to form an alveolar bone graft.
- Utilizing a suitable carrier the bone graft can be injected into a suitable graft location.
- The graft bio-compatibility should be followed radiographically for 4-6 months.
- This graft technique can be utilized during implant surgery, general oral surgery and periodontal surgery.

- This is a simple, cost-effective bone graft procedure used to treat extraction sites, implant surgical sites, periodontal bone loss, and peri-implantitis.

Biography

I was born in Montreal, Quebec and raised in Toronto, Ontario. After completing dental school at the University of Western Ontario I completed a general practice dental internship at St. Michael's Hospital in Toronto, Ontario. This internship provided me with advanced training in anesthesia, oral surgery, dental emergencies and the treatment of medically compromised patients. After completing the internship in July, 1991 I practiced general dentistry in northern, central and southern Ontario. I practiced as a Primary Care Paramedic in Nobleton, Ontario from 1992 to 1997. I began a solo practice with my wife.

A coralline-derived peri-implant bone graft

Sandra Ammonn* B.A., R.R.D.H, Dr. Mark C. Perry B.Sc., D.D.S., A.E.M.C.A.,
Dentistry on King, Canada

Marine corals have been discussed as potential human bone graM substitutes since 1979. The structure of marine coral is similar to human bone. Its components, structure and property are similar to the inorganic components of human bone. Coralline hydroxyapatite's biocompatibility is derived from the exoskeleton of the "high content calcium carbonate scaffolds."

Coralline hydroxyapatite is manufactured from marine coral. Marine coral has a trabecular structure similar to that of human bone. The benefits of Coralline hydroxyapatite include its biocompatibility, osteoconductivity, biodegradability and safety. It avoids immune rejection that may occur with the use of allograMs. Its rate of action depends on the porosity of the exoskeleton and the site of implantation.

Its use as a carrier for autogenous bone graMs during oral surgical procedures including extractions, implant surgery and periodontal surgery will be presented. Coralline hydroxyapatite provides a structure and support mechanism to guide the formation of new bone. Synthesized hydroxyapatite offers poor porosity for the promotion of vascular and hard tissue. Coralline hydroxyapatite has a similar pore structure as human cancellous bone.

Cases will be presented via video, still photography and radiography to demonstrate the use of a Coralline hydroxyapatite bone graM to aid in the repair of alveolar bone in extraction sites, implant surgical sites, cases of peri-implantitis and periodontal surgery. A step-by-step guide will be exhibited so that clinicians may begin to apply this procedure in their own practice.

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2. Mix the Coralline hydroxyapatite graM material with the autologous bone (from the Osseous Coagulum Trap) and autologous blood.
3. Utilizing a suitable carrier place the autologous/Coralline bone graM into position in the alveolus to create a stable graM location in order that osteoconductivity may begin immediately. Ensure sutures are not under high tension, do not over-fill the alveolar cavity with the graM, and prescribe antibiotics and an anti-bacterial mouth rinse post-operatively.
4. Allow four to six months of healing to occur before determining radiographically if the implant and graM material are fully osseointegrated.

There are four major features of Coralline hydroxyapatite:

1. Biocompatibility
2. Strength similar to bone.
3. Promotion of remodelling.
4. Bioactivity- it attracts and hosts new bone cells..

Take Away Notes

- Autologous bone should be preserved utilizing the Osseous Coagulum Trap
- Coralline hydroxyapatite is a suitable biocompatible bone gra6 material
- Coralline hydroxyapatite should be mixed with autologous bone gra6 material and autologous blood to form an alveolar bone graft
- Utilizing a suitable carrier the bone graft can be injected into a suitable gra6 location
- The gra6 bio-compatibility should be followed radiographically for 4-6 months
- This gra6 technique can be utilized during implant surgery, general oral surgery and periodontal surgery

- This is a simple, cost-effective bone graft procedure used to treat extraction sites, implant surgical sites, periodontal bone loss, and peri-implantitis.

Biography

Sandra Ammonn B.A., R.R.D.H.

Bachelor of Arts, Majors in Urban Development and Geography, University of Western Ontario, 1993

Dental Hygiene, Canadore College, 1996

Restorative Dental Hygiene, George Brown College, 1998

I am a Registered Restorative Dental Hygienist and practice wide-scope restorative dental hygiene at the following practice:

Dentistry on King 679 King Street West Kitchener, Ontario Canada

N2G 1C9

519-579-1899

I was born and raised in London, Ontario. I entered practice with my husband, Mark Perry, in Kitchener, Ontario in 1997, upgraded my skills to restorative hygiene in 1998 and added a satellite practice in Elmira, Ontario in 2014. I practice wide-scope restorative dentistry and orthodontics. I assist Mark Perry in moderate sedation and oral surgical procedures.

Endodontic complications: Prevention and management

Simka Andreas

German Military Hospital Hamburg, Germany

Endodontic Complications: Prevention and Management. The number of endodontic treatments over the last 20 years stays on a constant level, whereas the number of surgical interventions e.g. resection of the apical root, decreases. One reason for this development is the continuous improvement of technical and educational standards.

The root canal system with its complex anatomy has a number of pitfalls for dentists who provide endodontic treatment. Minor “mistakes” such as undersized access can, however, be easily corrected by tissue-saving expansion of the opening. This will have an extremely positive impact on all subsequent treatment. The situation is different when complications arise that force the attending dentist to admit the patient to hospital for acute treatment. In addition to anaphylaxis due to local anaesthesia, which is a general risk in dentistry, endodontic treatment can also induce emphysema when the root canal system is irrigated and the irrigation solution is driven into adjacent tissue. A complete diagnosis and permanent monitoring of the treatment protocol should prevent such extreme situations for both the dentist and the patient. In addition to minor complications and such extreme situations, there are, however, numerous pitfalls that may lead to time-intensive follow-on treatment or even tooth loss. Such problems can often be avoided if dentists observe the basic principles of endodontics from the very beginning and make use of technical innovations in modern dentistry. Treatment begins with diagnosis. As in implantology, cone beam computed tomography allows dentists to develop a coordinated treatment concept in complex cases.

Together, diagnostic and therapeutic procedures can help dentists to avoid pitfalls and to successfully manage complications.

Take Away Notes

- This presentation will show a basic treatment protocol in endodontics to avoid time-consuming following treatments.
- Furthermore the audience will become advices which situations require special equipment, e.g. a dental microscope.
- This presentation will set a focus on common endodontic complications and how to manage them.
- After listening to this presentation the audience will be able to save time in their daily practice by adopting simple treatment strategies in more difficult situations.

Biography

Andreas Simka studied in Ulm and has been working as a dentist since 2008 in several dental institutions. Currently he practises in the German Military Hospital Hamburg. Since 2002 he has served in the German Armed Forces and joined the mission abroad ATALANTA in 2014. As a generalist, he has focused on periodontics and endodontics, which he specializes in. Since 2015 he has been working as a speaker at national and international congresses. At the same time, he regularly publishes articles in various dental journals on endodontics and is a member of various professional societies.

Conventional endodontic therapy in the treatment of extensive radicular cyst

Melian Anca*, Melian Gabriel, Antohi Cristina, Salceanu Mihaela

Department of Endodontics, Faculty of Dental Medicine, University of Medicine and Pharmacy "Gr.T.Popa" Iasi, Romania

Current practice accredited cyst surgery as therapeutic approach of choice leading in some cases to important bone loss and teeth loss, difficult to recover. Radicular cyst has a membrane and a content and according to recent studies, cystic lesions are maintained due to the presence of irritants in cystic cavity.

It is widely accepted (1) that after proper nonsurgical endodontic therapy, most periradicular lesions except apical true cysts heal, but it was not very clear how the epithelium of apical cysts regress after conservative treatment. Recent studies (2) suggest that the process is most likely caused by apoptosis or programmed cell death. Once the irritants from the canals are removed by chemomechanical instrumentation and the canal is completely sealed, all cell components participating in inflammatory reaction will gradually resolve (inflammatory mediators, proinflammatory cytokines, growth factors). As a consequence, the restricted-potential basal stem cells in the epithelial strands or lining epithelium of cyst will stop proliferating. Recently, the correlation between apoptosis and the regress of lining epithelium of apical cysts after nonsurgical endodontic therapy was immunohistochemically demonstrated (3). During treatment, samples of cystic fluid can be collected and analysed to determine the level of IL-1-beta and TNF-alpha as markers of inflammation (electrochemiluminescent immunoassay, ECLIA).

The aim of the present study was to address and validate a methodology for conservative treatment of radicular cysts based on clinical and radiological examination. Patients were subject to root orthograde treatment and surgical decompression of cavity cyst, simultaneously. The cases were monitored clinically, where CBCT radiography was performed before treatment as well as 3 months, 6 months, 12 months after. The radiographic images were evaluated based on Periapical Index (PAI) of Örstavik by two previously trained examiners. Finally, the study sought to demonstrate that removal of irritants from cystic cavity through a conservative treatment (root orthograde surgical therapy with or without surgical decompression) lead to periapical wound healing by triggering apoptosis and regression of the lining epithelium of the apical cyst.

Take Away Notes

- At the end, the participants will be able to understand that a cyst can heal by conservative, minimally invasive treatment by the elimination of all possible irritative causative factors from root canals and cyst cavity associated with the available drugs.
- The demonstration of this hypothesis will allow the introduction of our proposed method as first line mandatory stage of the radicular cysts treatment protocol, which can be applied by dentists and maxillofacial surgeons.

Biography

Dr. Anca Melian received her dental degree from the "Gr.T.Popa" University of Iasi, Romania, in 1991. She completed a doctoral degree in Periodontology at the University of Iasi, where she continued her graduate and postgraduate teaching activity, along with clinical work in the private sector limited to endodontics and implantology. Today she is lecturer, Head of the postgraduate endodontic program at Dental Faculty, "Gr.T.Popa" University, Iasi. Her main interest is about the conservative treatment of radicular cyst and she has presented the results of her work at various scientific meetings.

Current leanings in traumatized teeth

Camila Paiva Perin, Sp, Md, PhD

University Tuiuti do Parana - Brazil

The significant advances in public health through education and self-care practices have been widely and successfully disseminated worldwide. As regards oral health, promotion and prevention activities have resulted in a drastic reduction of the most prevalent diseases (caries and periodontal disease) in recent decades, with proven epidemiological evidence (Nickel et al., 2008; Narvai et al., 1999, Ministry of Health, 2004). On the other hand, it was verified the growth of another harm in dentistry: traumatic dental injuries (TDIs). By definition, TDIs are characterized as any lesion to the dental organ, of thermal, chemical or physical origin, of varying intensity and severity and whose magnitude exceeds the resistance found in bone and dental tissues. (Baker et al., 1990). It occurs at any stage of tooth development and age, and is more common in children and adolescents.

The incidence of traumatic dental injuries in the population has increased significantly in recent years (Traebert et al., 2010, Traebert and Claudino, 2012). Some reasons, such as the greater participation of children, adolescents and adults in sports activities, the increase of interpersonal violence in its different nuances (urban, domestic, from different forms of prejudice), motor vehicle accidents (Wulkan et al., 2005), have contributed to the increase of cases of TDIs in the world, transforming the occurrence, into a significant and emerging public health problem.

The traumatic dental injuries, because they differ in type and intensity, should be carefully analyzed in their clinical management (Sanabe et al., 2009), as they affect the individual affected not only with physical but also psychological consequences, negatively impacting quality of life and in interpersonal relationships (Antunes et al., 2012), constituting a social problem of high relevance. Thus, factors such as the severity of trauma, dental development stage, time elapsed from the occurrence of the accident to the care should be considered for the implementation of the appropriate treatment. However, clinical difficulties await new perspectives for the treatment of traumatized teeth. In view of the specified above and with the objective of working with an evidence-based dentistry to improve the population's care, the lecture will have as its object the discussion the TDIs, emphasizing current leading for traumatized teeth. Because it is an eminently clinical topic and one of exciting discussion, it will discuss the latest practices to prevent the occurrence, reduction and/or control of sequelae due to TDIs, from immediate care to the longitudinal preservation of the sequelae, with the primary objective of maximizing the survival of traumatized teeth.

Thus, aspects ranging from the correction of malocclusions, indication of adequate buccal protectors, means of preservation and extra alveolar time for avulsed teeth, will be discussed.

Furthermore, new alternatives for the treatment of external resorptions (inflammatory and mainly substitutive), which are sequelae due to severe TDIs and persisting as a treatment challenge in the present days (Consolaro, 2011), will be addressed.

Finally, new treatment perspectives for immature traumatized teeth with necrotic pulp, through regenerative endodontics in their different techniques, and intentional non-invasive reimplantation for the indicated cases will be presented.

Take Away Notes

- It will be presented conducts and new perspectives for the prevention, treatment and proservation of traumatized teeth, increasing the clinical possibilities of treatment.
- Knowledge about the subject, agility in the urgency treatment and the correct referral of the patient provide a better prognosis.
- Some practices for the management of dental trauma are consolidated, others are in the experimental phase. Thus, the theme, in addition to implementing new behaviors and reaffirming the traditional ones for solution or control after dental trauma, also demands research that can be reproduced to confirm its results. The issue is also important because it is a public health problem and requires the population's information needs for its prevention.

Biography

Prof. Dr. Camila Paiva Perin is Dentist graduated by the Federal University of Paraná - Brazil, Specialist (Sp), Master (Md) and Doctor (PhD) in Endodontics and specialist in Public Health. She is tutor of the Dentistry Course at the University Tuiuti of Parana -Brazil, in the disciplines of Endodontics, Collective Health and Dental Clinic, as well as being a Coordinator of the Endodontics Specialization Course at the same University. She is Dentist of the Unified Health System (SUS - Brazilian public health service) in the city of Curitiba - Paraná - Brazil. She has experience in the area of Dentistry, with emphasis on Endodontics and Public Health, working mainly on the following topics: dental trauma, regenerative techniques in Endodontics, Endodontics in Public Health and Paraendodontic Surgery.

The importance of CT scanning in the modern dentistry and its indications in dental specialties

Alessandra de Freitas-e-Silva*, Ph.D. Belkiss Camara Marmora; MSc. Sandra de Carvalho Suzuki

University Center of Distrito Federal, Brazil

Initially we will discuss the types of computed tomography available and their respective applications in the area of health, we will indicate the specific types that be applied in the dental area with their properties and characteristics. We will talk about the most innovative applications involving computed tomography associated with dental software that facilitate and ensure the diagnosis, planning and preservation of dental procedures. Posteriorly, during the presentation we will discuss the applicability of this imaging exam in the main dental specialties, exemplifying each indication with clinical cases documented by photos, videos and confirmations of histopathological exams when pertinent. We have an extensive data file to illustrate and enrich our talk. Imaging examinations are fundamental these days for safe, modern and responsible dentistry. In this way, our goal is to educate professionals by clarifying the myths surrounding the use of imaging exams in dental specialties, using clinical cases as a basis for understanding the procedures.

Take Away Notes

- The public may use the knowledge of possibilities of use CT scanning diagnosis, planning and preservation of dental procedures, increasing speed, security and accuracy in cases resolutions. Knowing either the technologies available in the dental universe.
- The use of computed tomography in dentistry has expanded to not only the surgical sphere, having several possibilities of applicability, in a secure manner. The use of this imaging exam is permeated by myths and insecurities. Our aim is to clarify and provide information and subsidies based on scientific bases for the use of auxiliary means of diagnosis for which the dentist to optimize and ensure the diagnostic and therapeutic procedures.

Biography

Pós-Graduation in Endodontics (FOUP/RP), Specialization in Imaging and Radiology Dento-Maxillo-Facial (APCD-SCS), Specialization in Stomatology (SLM-SP), MSc. Radiology (SLM-SP). She is currently teacher of Radiology and Stomatology teacher of the University Center of Distrito Federal (UDF) and Postgraduate Courses in some Hospitalar dentistry, implantodontics courses at BSB/DF and Guest Professor of Radiology at the of the University Centre of Distrito Federal (UDF). Scientific consultant of dental clinics in several states of Brazil. Has experience in Dentistry, with emphasis in Radiology Oral MaxilloFaxial, Stomatology and Endodontics.

Pattern of clefts and dental anomalies in six-year old children: A retrospective observational study in western Norway

Paul K. Sæle

University of Bergen, Norway

The lecture will deal with the dental and facial deviations among cleft lip and palate patients, compared to the normal population. It will be a combination of research and clinical topics. The different deviations will be explained by clinical findings. The lecture will deal with the challenge of solving the deviation only by orthodontic means, and highlighting the treatment protocol.

Objectives: Cleft lip and/or palate is the most common congenital disorder in head and neck in Norway. The incidence is 1,8 per 1000 live births. The disorder has a multifactorial etiology and complex clinical symptoms. It therefore requires multidisciplinary treatment with orthodontics playing a significant role. The goal of this study was to investigate the frequency and distribution of clefts of patients under treatment by the cleft lip and palate team in Bergen. Other goals were surveying the amount of quantitative and qualitative tooth and occlusion anomalies among children with cleft lip and palate.

Material and methods: The main inclusion criterion of this descriptive observational study was patients that were examined at 6 years old in Bergen from spring 1993 to autumn 2012. The reports were borrowed from the center of CLP, Hordaland County Council. 988 reports were eligible and made the foundation for the study.

Results: The gender distribution among the patients with cleft was 58,8% male and 41,2% female. Clefts of the palate (CP) were most common (39%), before cleft lip and palate (CLP) (26,8%) and cleft lip (CL) (25,8%). The frequencies of dental agenesis, supernumerary teeth and localized microdontia were 37%, 18,1% and 7,7% respectively. Supernumerary teeth and localized microdontia were most common in CP, while CLP presented agenesis most frequently. 48,8% was diagnosed with at least occlusal anomaly. Unilateral posterior crossbite (38,8% in CLP) and negative overjet (37,2% in CLP) presented the highest frequencies in the cleft subdivisions.

Conclusions: The gender distribution of individuals with orofacial clefts is stable, while CP is the most common subtype. Children with clefts present high prevalence of quantitative and qualitative dental anomalies, as well as malocclusions.

Bone and intraosseous lesions of the oral region: A 50-year retrospective study in São Paulo, Brazil

Neliana Salomão Rodrigues*, Dentist-Stomatologist, Master-Stomatologist- Adjunct Professor of, Stomatology in Universidade Iguaçu-UNIG-Itaperuna-RJ, Brazil and University Center Unifaminas- Muriaé-MG, Brazil., Cristiane Furuse, Dentist-Pathologist, Master and Ph.D Pathologist, Department of Pathology and Clinical Propaedeutic, Aracatuba School of Dentistry.Unesp

The epidemiological study aims to provide information to the clinician, aiding in the diagnosis and providing conditions for better understanding and prevention of certain pathologies. Methodology: This study had as objective the study of bone lesions and intraosseous diagnosed in the Department of Pathology, School of Araçatuba-FOA-UNESP Dentistry, over a period of 50 years, analyzing the gender, age, sex, race, anatomical location and radiographic features of the lesion. The lesions were classified according to their nature. Results: Cystic lesions accounted 59% of all diagnoses. Most of the lesions occurred in the male sex, white race, jaw, of radiolucent appearance and in patients with an average of 32.65 years old.

The present research aims to emphasize the importance of the collection of epidemiological data and the science of certain entities in order to provide knowledge and prevention about the osseous lesions found in the head and neck region.

Take Away Notes

- This work was to analyze the prevalence of diseases that affect the jaws and their clinical profiles making a retrospective analysis of the last 50 years in a Histopathologic Diagnosis Service of a Dental School belonging to one of the largest universities
- Most of the results confirms or slightly different studies in different populations worldwide, leading us to infer the little genetic and geographical influence of most of the lesion. The differences are quite possibly the characteristics of the service studied, the methodology used and the population's access to diagnostic services
- From our results, we find also the need to strengthen preventive and educational measures against dental caries since most lesions found is related to the loss of pulp vitality

Biography

Graduated in Dentistry from Universidade Federal Fluminense, Nova Friburgo-RJ, Brazil.

Specialist in Estomology at the State University of Rio de Janeiro, Rio de Janeiro-RJ, Brazil.

Master in Stomatology at Aracatuba School of Dentistry, Unesp – Univ Estadual Paulista, Araçatuba-SP, Brazil.

Assitant professor in surgery in Universidade Iguaçu-UNIG-Itaperuna-RJ, Brazil. Coordinator of the Dentistry course in University Center Unifaminas-Muriaé-MG, Brazil. Adjunct Professor in Stomatology in University Center Unifaminas-Muriaé-MG, Brazil

A novel fluoride coating for early-stage caries prevention

Agron Hoxha*, MEng, Dr David Gillam BA, BDS, MSc, DDS, FRSPH, FHEA, Dr Mangala Patel PhD, MSc, BSc(Hons), Dr Andy Bushby, PhD, BSc

Queen Mary University of London, UK

Objective: To develop a layered double hydroxide – polycarboxylic acid composite coating and to study its ability to adhere to hydroxyapatite (HA) and release fluoride at a controlled level. Maintaining a low therapeutic level of fluoride in the oral environment to prevent early-stage caries is a necessity; fluoride releasing dental coatings incorporating LDH, applied via mouthwash or toothpaste, have the potential to address this.

Method: Zinc containing layered double hydroxide was synthesised using a co-precipitation technique while incorporating two different polycarboxylic acid polymers in situ, characterised using powder X-ray diffraction (pXRD). The resulting powder was allowed to absorb fluoride in a solution of 1500ppm sodium fluoride (NaF) and then one coat was applied onto hydroxyapatite discs using a brush. Once applied, the discs were rinsed in de-ionised water (DW) twice, to remove any excess polymer-LDH. The coated samples underwent 3 cycles of demineralisation in acetic acid solution (pH 4, 1M for 30seconds) and remineralisation in artificial saliva solution (for 3 hours), both at 37°C. The discs were analysed in between each cycle, using a scanning electron microscope (SEM) and energy dispersive spectroscopy (EDS). The fluoride released in each solution was measured using fluoride ion selective electrodes (NICO2000, precision $\pm 2\%$).

Results: LDH incorporated in two polycarboxylic acid polymers were successfully synthesised, as confirmed using pXRD. Both coatings remained attached on the HA surface and released fluoride in both demineralising and remineralising solutions during all cycles. The first coating released significantly higher amounts of fluoride ($\sim 8.22 \pm 2.88$ ppm and $\sim 1.27 \pm 0.31$ ppm in remineralisation and demineralisation solutions, respectively), in comparison to the uncoated control (0.05 ± 0.003 ppm and 0.04 ± 0.005 ppm). The second coating released $\sim 4.66 \pm 0.19$ ppm and 0.81 ± 0.04 ppm in remineralisation and demineralisation solutions, respectively. EDX also confirmed the presence of fluoride on the coatings.

Conclusion: LDH was successfully attached to HA discs using polycarboxylic acids and was capable of releasing fluoride. Therefore, it has the potential to prevent early stage caries via a controlled release of fluoride over many acid challenges.

Take Away Notes

- Understand the importance of maintaining a low concentration of fluoride in the oral environment
- for the prevention of early stage caries.
- The use of Layered Double Hydroxide in dentistry can be expanded into other dental applications for the benefit of slow ion or drug release, for example, in dental varnishes or composite materials. This may allow other faculties to expand research in this direction and lead to potential collaborations.
- The future recommendation of mouthwashes and toothpastes could include Layered double hydroxide as a novel caries prevention active ingredient.

Biography

Past research experience includes working as a development scientist in R&D for Vertellus Specialties. As a lead scientist and in collaboration with University College London, I was responsible for the development of a hydrogel glaucoma implant and coating hemodialysers with a biocompatible coating. Completed projects on the Meng Dental Materials course, included studies on denture hydrogel fixatives and composite coatings for improved wear resistance.

Currently, my PhD research project involves studying layered double hydroxides for the incorporation into dental materials, to render the materials as rechargeable fluoride batteries. Having a controlled fluoride release of fluoride within the oral environment thus maintaining a low concentration, has a potential therapeutic effect in preventing caries.

Comparative study of health information on the internet about caries, halitosis and mononucleosis

Cristiane Lopes Miguel*(Dr., M.Dent; Fernando Pessoa University-Portugal and Prof of Human Anatomy and Physiology in Óscar Ribas University-Angola); José Frias Bulhosa (Forensic dentist, M. Sc. In Public Health and Prof. of Ethics in Fernando Pessoa University)

Internet search engines can be an important source for patients to access information online related to oral health, but little is known about the evaluation of health information on the worldwide WEB. Aim: To evaluate information on caries, halitosis and mononucleosis. The content trends of oral health information on the internet and obtain qualitative and quantitative data to generate hypotheses about what patients research and evaluate this information.

Method: Three search engines were selected, Google (Portugal), Bing and yahoo (in portuguese) by evaluating the 10 results of the first page of each. Data was collected over a period of 48 hours and analyzed comparatively to the scientific information “based on Level of evidence of Oxford”, clinical, operative and preventive content about the three pathologies. And arranged by the descriptive method. Results: Google is the most accessed and Yahoo is the only one among the 3, which has a site dedicated to oral health publications. A concordance of approximately 30% to 50% of the sites was found and most presented content information in current language. Among them, it is probably a concern to realize that only 1 site out of 90 analyzed, presented level 1 of scientific evidence, related to caries. Generally, the sites had explanatory content, with the current and simplified language, on the themes. But it is necessary to adapt the scientific evidence to everyday life.

Conclusion: Scientifically based information improves the quality of what is read by users so it is necessary to check health websites because the internet is also a form of public health promotion.

Take Away Notes

- Improving oral health promotion
- Evaluating prudently the information content on the worldwide WEB
- Knowing the patients research behavior
- Reinforce the importance of the health professional in patient treatment
- Useful as an alert of the improve the quality of oral information
- Generate hypotheses about what patients research
- Can be useful to promote the necessity of the quality of new researches
- Simplify Medicine basead in evidence in what patients research on internet
- Not necessarily because it is based on mutable daily results, and reflects the web research behavior of a specific population

Biography

Dr. Cristiane Lopes Miguel was born in Rio de Janeiro. Teacher of Human Anatomy and Physiology in Óscar Ribas University-Angola. Graduated in Dentistry from Veiga de Almeida University, she also holds a atualization in minor oral surgery and specialization in Public health by the Federal University of Rio de Janeiro. Moved to Porto, where she proceeded to Master degree in Dental Medicine. Her research interests areas include preventive dentistry, public health and oral health promotion. Although young professional is a regular speaker, her latest presentation was in 63rd ORCA Congress. Due to her passion about the academic area, she is currently coursing her PhD in Preventive Dentistry at Porto University -Portugal.

Teeth belaching; from A to Z: Keep a bright smile

Randa Essam Shaker

King Faisal Specialist Hospital and Research Center – Jeddah, Saudi Arabia

Tooth surface loss (TSL) is a generalized term used to describe the loss of dental hard tissues from surfaces of teeth caused by factors other than dental caries, trauma or a result of developmental disorder.

There are two kinds of TSL, physiological tooth surface loss: which is defined as, normal tooth surface wear process microscopically irreversible and cumulative with age and, pathological tooth surface loss which is associated with functional or aesthetic concerns, disproportionate for the patients age, symptoms or discomfort are present, severe rate TSL.

Take Away Notes

- Definition of tooth wear.
- How to do proper examination.
- Subdivisions of tooth wear and its causes.
- Assessment, treatment planning.
- Strategies for prevention and passive management of tooth wear.
- Treatment methods.

Biography

Dr. Randa Shaker

Consultant – Advanced General Dentistry

Department of Dentistry

King Faisal Specialist Hospital and Research Center- Jeddah

Present Position: Consultant – Advanced General Dentistry and Residency Program Director

The challenge of successful root canal treatment

Nehal Sharaf*, Ph.D., Rasha Sharaf, Ph.D

National Research Center, Egypt

Root canal treatment follows a series of procedures for cleaning, shaping and filling of the root canal. One of the most important procedures during treatment is the chemomechanical preparation based on the correct use of instruments and irrigating solutions. However, there are some cases in which the treatment has followed the highest technical standards and yet still results in failure. In most of these cases, the endodontic failure results from persistent intraradicular infection.

Bacteria located in areas such as isthmuses, ramifications, deltas, irregularities and dentinal tubules may sometimes be unaffected by endodontic disinfection procedures.

Studies showed that part of the root canal space often remains untouched during chemomechanical preparation, regardless of the instruments used for preparation.

That's why recent researches and innovations are directed nowadays towards activation of the root canal irrigating solution or modifying its properties and using new techniques and devices to improve its action and eradication of bacteria from inside the canal, to increase the success rate of root canal treatment and avoid failure.

So in this presentation we will discuss the effectiveness of XP endo finisher and Endoactivator on removal of smear layer from the root canal walls, where 30 freshly extracted permanent teeth were used in this study. Teeth were divided into 3 equal groups according to the method used for activation of the irrigating solution inside the canal after mechanical preparation. In group (A), XP endo finisher was used for activation of EDTA solution inside the root canal. Group (B), Endoactivator was used for enhancing the action of root canal irrigant. In Group (C) root canals were irrigated with EDTA without activation. Teeth were examined using scanning electron microscope. Results showed that the best result of smear layer removal was obtained with XP endo finisher, followed by endoactivator which showed moderate removal of smear layer specially at the middle and apical thirds. But the amount of remaining smear layer with Endoactivator was still better than that obtained with EDTA alone without any mean of activation.

Also we will explain the different causes of failure of root canal treatment and how to avoid, to increase the success rate of endodontic treatment, the main goal of chemomechanical preparation, and how to improve the antibacterial action of root canal irrigant against root canal bacteria, recent devices and techniques and newly designed instruments used in cleaning of the root canal wall will also be explained.

Recent researches are directed towards using new techniques, devices and newly designed instruments to improve the action of irrigant against bacteria inside the root canal and to increase the success rate of root canal treatment and avoid failure.

Take Away Notes

- Discover the recent innovations in root canal disinfection
- Know how to improve the success rate of root canal treatment
- The action of newly designed instrument on smear layer of the root canal wall

Biography

Dr. Nehal Sharaf, Researcher of Endodontics at the National Research Center, Egypt

Ph.D. in Endodontics on 2012

Assistant prof. of Endodontics.

Delivering mobile dentistry to the geriatric population - The future of dentistry

Jim Chung

Royal College of Dental Surgeons of Ontario, Canada

Over the next twenty years, Canada is expected to double her population of senior citizens over the age of 64 to ten million, and I'll be one of them. Western Europe and Japan are even further along this path than North America.

In Canada we are seeing a proliferation of assisted living centers where seniors who are still fit and healthy choose to transition from private residence to living in apartments suites with varying levels of concierge service like full housekeeping and meal preparation. As these complexes grow in sheer size, I envision both medical and dental practices embedded into them as their residence population becomes big enough to support a practice and business (dentistry is still a private nongovernment sponsored health profession in Canada). The Canadian winter severely inhibits seniors from accessing services outside of their retirement complexes.

For the past decade, I got a taste of this future. My practice devoted two Fridays a month to delivering comprehensive mobile dentistry to two centers within a 5 km radius. This made it possible for them to access my clinic for difficult procedures like extractions and implant placement. Meanwhile we provided the full spectrum of services: restorative/endodontic/prosthetic/hygiene and select surgery at their retirement center. We carried a mobile x-ray, chair, supplies and a dental unit that combined compressor and vacuum suction, which could be broken down and carried in the back of an estate car.

It was rewarding experience; one that gave us some needed exercise and healthy change of scene but a difficult one to initiate. Most retirement homes are reluctant to allow us entry not quite believing what we are capable of even with a mobile service. But once convinced, they often feature our services when soliciting new clients.

I'll be giving you some valuable tips on conducting geriatric dentistry and hoping to convince you that this is one future of dentistry that most clinicians are not prepared to embrace. Getting there ahead of others could mean a great difference in your success and satisfaction as a dentist.

Biography

Dr Jim Chung is a graduate of the University of Western Ontario and holds degrees in Biochemistry and Dentistry. He has practiced in remote underserved regions like Northern Ontario and the metropolitan centers of Vancouver and Toronto over the past 25 years.

As an undergraduate he conducted research and published peer reviewed papers on metallothionein (heavy metal binding protein) and pulmonary surfactant. He was also instrumental in harvesting bovine surfactant for human neonatal trials. While a busy general practice dentist in Toronto, he also became an avid professional astronomer and published his first book on the topic in 2015 "Astroimaging Projects for the Amateur Astronomer - A Maker's Guide" and enjoys speaking professionally about the topic of planetary astrophotography.

He sold his practice in 2017 and now works one day a week clinically and spends the other four days at his new position with the RCDSO in downtown Toronto.

DAY 1

POSTERS

2nd International Conference on

Dentistry and Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

ICDO 2018

Enamel Matrix Derivative (EMD) adsorption at dental implant-relevant interfaces

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Queen Mary University of London

Introduction: Enamel matrix derivative (EMD), predominantly comprised of amelogenin protein, is used as a therapeutic treatment for regeneration of lost periodontal hard and soft tissues. The regenerative effects of EMD have been proven in intrabony periodontal defect therapy. However, the interaction between EMD and an implant surface and subsequent mineral is not fully known. Understanding how enamel matrix derivatives interact at interfaces in order to promote hard tissue regeneration can give us the tools to optimize their use in dental implant therapeutics.

Objective: To study the interaction of enamel matrix derivative at the molecular level with implant-relevant interfaces.

Methods: Quartz-crystal microbalance with dissipation (QCM-D) was used to elucidate the adsorption properties of EMD, including rate, and mass of protein layer that forms on titanium surfaces. The QCM-D measures EMD adsorption mass in real time through measuring the changes of the quartz crystal resonant frequency (coated with titanium). A series of EMD concentrations were examined in the range 0.01 to 1.0 mg/ml at 37°C and neutral pH.

Results: The QCM-D experiments showed that the EMD adsorption mass on a titanium surface increased as the EMD concentration increased at 37°C and neutral pH (from 9 to 21 mg/m²) until the surface reached saturation at 0.1 mg/ml concentration after which further increases in concentration did not affect the bound mass. This may reflect the affinity of amelogenin to self-assemble and form nano-spheres that readily adsorb to titanium at physiological temperature and pH.

Conclusion: The results showed that the adsorption behaviour of EMD and mass adsorbed on titanium are affected by concentration within a certain concentration range. The next stage of the project will be to examine bone cell responses to the adsorbed EMD layer in order to identify the favourable properties of EMD coating that enhance bone formation around a dental implant.

Take Away Notes

- Understanding the interactions of EMD under different conditions.
- Recognizing the best conditions that optimize the efficiency of EMD as a potential dental implant coating agent.
- This research will provide fundamental information for future in vivo studies to investigate the EMD influence on bone regeneration.

Biography

Abdullah Holdar qualified dentist since 2007 worked in several places as a general dentist in my country (Saudi Arabia), I got my Master's degree in Oral Biology from QMUL in 2016, and currently I am a PhD student at Barts and the London School of Medicine and Dentistry, Queen Mary University of London.

Understanding the difficulties in using artificial teeth for pre-clinical teaching

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³GlaxoSmithKline, St George's Avenue, Weybridge, KT13 0DE, UK

Introduction: Within dental education, there is a distinct need for hands-on pre-clinical training before a patient's treatment is carried out for the first time. Throughout the years, numerous techniques have been developed to teach students the anatomy and to perform various dental techniques. The standard practice within the UK is a combination of using artificial models and extracted human teeth during pre-clinical training. Both techniques have advantages and disadvantages, however, extracted teeth are seen as the gold standard, but due to low availability dental schools have had to rely more heavily on the use of artificial models. Students' perception, however, shows a dissatisfaction with artificial models due to physical characteristics of these teeth, making them more difficult to treat compared to natural. Students recognise the advantage of these artificial models but suggest improvements, such as the hardness of resin teeth to reflect the hardness of natural tissues.

Objective: The aim of the study was to understand the differences in mechanical properties between extracted human teeth and commercially available artificial models. **Methods:** In the study mechanical testing carried out included microhardness, tensile strength, and fracture toughness. Sound extracted human teeth were selected and imaged using X-ray microtomography (XMT) to ensure no presence of caries. Microhardness was carried out using 2 mm slices of teeth using Vicker's indentation with a load of 25 gf for 12 secs, and a maximum of 90 indentations was made across both enamel and dentine. Tensile strength was carried out using a micro-tensile tester under a scanning electron microscope. Fracture toughness was measured using Vicker's indentation with a load of 500 gf and measuring the fracture lines using optical microscopy and XMT. An experiment was designed to measure the force dentists applied when cutting both extracted and artificial teeth. With teeth being mounted to a 3-axis load cell, and force data being recorded in real-time as dentists performed a Class I cavity preparation. **Results:** Results from the microhardness showed extracted enamel and dentine was harder than artificial, with this being confirmed with the fracture toughness. Tensile measurements showed artificial enamel and dentine had a higher tensile strength compared to extracted suggesting a higher elasticity in the artificial. Contrary to what was found in the mechanical testing, it was found that the dentists exhibited more than double the force to cut artificial teeth compared to extracted. Non-clinicians were asked to perform the same procedure and showed similar results, suggesting that there is difficulty in performing dental procedures on artificial models. **Conclusion:** Further testing looking into Young's modulus of each material may offer an explanation as to why there is a difference between performing procedures on the two materials.

Take Away Notes

- To understand and explain why undergraduate dental students believe artificial teeth to be a poor imitation of extracted teeth.
- To explain the difficulties in performing procedures on artificial teeth compared to extracted teeth, and to offer recommendations as to improve students' experiences.
- To understand the mechanical properties of extracted teeth, and as to why procedures performed on these are easier.
- To take the research done and to provide alternative solutions to undergraduate students.

Biography

I'm a PhD student in the Centre of Oral Bioengineering at the Institute of Dentistry (Queen Mary University of London, England, UK), currently researching 3D Printing Teeth using X-Ray Microtomography for pre-clinical training. The project aims to look at techniques in 3D printing artificial teeth with similar mechanical and physical properties to extracted, for pre-clinical training, using data collected from X-ray microtomography (micro-CT). I originally graduated from Swansea University (Wales, UK) where I undertook both a Bachelor's in Medical Studies and Humanities (2014) and a Master's in Nanomedicine (2015). My research interests include (but not limited to); additive manufacturing, material engineering, imaging, computer modelling, dental education, regenerative medicine, and nanotechnology.

Trial on 5 % NaF Varnish real effectiveness on high caries risk patients when we consider SMs level influence Real effectiveness of a daily international dental preventive practice: A new question!

Jacques E. Veronneau*, DMD, PhD¹, Blerta Laiti-Xhemaji, PhD(c)², Agim Begzati, DMD, MSc², Teuta Kutilovci DMD, MSc², Aida Rexhepi, DMD, PhD² Ariana BytyciDH³

¹Servidence, Canada; ²Prishtina University, Kosovo; ³Dental Hygienist, private practice of Pristina, Kosovo

Worldwide scientific premieres, after inconclusive trials testing topical fluoride varnish on high caries risk patients, here is the influence of the SMs levels on your patient RCT testing how cariogenic bacteria can limit topical fluoride varnish effectiveness on ECC most vulnerable children Observational designs on infants, schoolers, adults reporting the SMs and L levels Observational designs showing the veritable dose-response nature between levels of SMs and L infection and caries experiences. In clear, evidences are given, on: ECC ICDAS carious lesions reporting, on cariogenic bacteria levels on daily dental patients, on real effectiveness of topical fluoride on high caries risk patients.

In a population that shows a low caries prevalence trend, a relatively small group (high-caries-risk subjects) that shows high levels of the disease can be recognized. Clinical and experimental trials have suggested that topical application of 5 % Sodium fluorides (NaF) is effective in the reduction of dental caries development. Varnish vehicle is seen as modern gold standard for such application. Moreover, experimental data suggest that the results of preventive interventions based on topical fluorides can probably be optimized considering microbiological parameters related with caries risk at individual level, such as the salivary concentration of mutans streptococci (SMs). The aim of this original study was to determine the influence on the effectiveness of 5 % NaF fluoride varnish treatment of different SMs levels in a 2-year-old children sample. After 24 months of duration, the general preventive fraction associated to 5 % NaF varnish 4/times/year applications will be described using ICDAS modern index. Specific concurrent incidence ICDAS categories will be reported by group. Then, baseline test group SMs levels will be summarized using CRT Vivaclar-Vivadent commercial kit. Finally, endpoint test group carious lesions incidence will be reported in association with SMs categories. Fort the first time in the world, we will discovered real effectiveness of common fluoride varnish applications on high caries risk children considering their initial SMs levels of infection. In addition, SMs levels in original data of typical private patients and of targeted scholars for dental public health programs will be given as examples SMs levels of infection. At the end, audience will be sensitized to a modern medical prevention taking into account cariogenic bacteria in regard to topical fluoride real effectiveness. This presentation will be in phase with modern primary prevention practices taking into account a pre medical treatment of cariogenic bacteria when topical fluorides are applied to high caries risk patients.

Take Away Notes

- (International project that lead to dental practice changes in topical fluoride applications). Topic will change high caries risk patient's prevention treatment.
- Topical fluoride treatment is the most common professional prevention act in the world: we will revolutionize your knowledges/practices and daily advices related to your high caries risk patients
- This original trial will change the teaching and potentially expand evidence based on we what discovered
- This learned lesson in fluoride topical application will be disseminated for private practice actors and for dental public health representatives
- Shared conclusions of this abstract will increase competencies leading to better topical fluoride efficiency
- This will base conditions for a future course on modern cariogenic antibacterial toothpaste

Biography

Jacques Veronneau, DMD, Msc, Phd is the author, He is a former assistant professor at McGill University and actual chief of Servidence, startup dental company. Original Servidence's mission is to realize in vivo research through his several dental practices and by so, as a human LAB, develop new evidences based on products that can be then commercialized. He has researches on three continents: he trained about 100 academic colleagues on modern caries detection systems of nine countries and created a network of researchers. He is the only French Canadian as cariologist.

Antibiotic prophylaxis pattern of Basque dentists in the placement of dental implants: A cross-sectional survey

Iciar Arteagoitia* PhD; MD. Fabio Rodríguez Sánchez DDS. Carlos Rodríguez Andrés MD, PhD.

BioCruces University of the Basque Country, Spain

Objective: The objective of this study is to assess current antibiotic prescribing patterns and antibiotic prescribing frequency of dentists in Bizkaia in conjunction with routine dental implant surgery to determine whether there is any consensus among such practitioners.

Methods: Observational cross-sectional study based on an electronic survey. This study was reported according to the STROBE guidelines for observational study reporting. This anonymous questionnaire comprised information in relation to the following: Demographic details, qualifications and work experience, most commonly prescribed antibiotic, dosage and duration. The questionnaire contains both open-ended and close-ended questions. An email was sent on 26th October 2017 to all the registered members of the Bizkaia Professional Dentists' Association, who had not expressly requested their desire not to receive emails. The email included a link to the anonymous web questionnaire developed on www.encuestafacil.com. The total number of questionnaires sent was 989. The final sample size consisted of the professionals who decided to partially or wholly respond to the survey. The collected data were analyzed using Stata 14 software (StataCorp, College Station, Texas, USA), 95% confidence intervals (CI) were used to assess prescription frequency per antibiotic regime.

Results: The survey was responded by a total number of 233 participants, the response rate was 23.56%. Overall, 210 participants finished the entire survey and 23 surveys were answered partially. The questionnaire was responded by 122 female (58.1%) and 88 male (41.9%) participants. Most of the dentists were aged between 51 and 60 years old (30.95%) and the majority of them (n=173) had studied at the University of the Basque Country (82.78%). Eighty-eight percent (n=207) always prescribed prophylactic antibiotics in conjunction with a dental implant surgery (95% confidence interval [CI]: 84.79-92.88%). Approximately 9 percent (n=22) prescribed antibiotics sometimes (95% CI: 5.68-13.19%) and only 4 dentists (1.72%) prescribed no antibiotics at all (95% CI: 0.04-3.38%). Overall, 179 of 233 respondents prescribed both pre- and post-operation antibiotics (78.85%, 95% CI: 72.96-83.97%), 13 only prescribed antibiotics pre-operation (5.73%, 95% CI: 3.08%-9.59%), and 35 exclusively prescribed antibiotics exclusively a routine dental implant surgery (15.42%, 95% CI: 10.98%-20.78%). After amoxicillin, amoxicillin/clavulanic acid was the most frequently prescribed antibiotic type.

Conclusions: The majority of dentists in Bizkaia routinely prescribe prophylactic antibiotics in conjunction with a dental implant surgery. A large range of prophylactic regimes are followed showing the huge variety in the choice made by dentists.

Take Away Notes

- The audience will learn about the antibiotic guidelines used by Basque dentists when they place dental implants as well as the evidence available on the use of antibiotics in conjunction with routine dental implant surgery
- This research will encourage self-reflection on the patterns of antibiotic prescription along with the placement of implants by each professional.
- It will make the audience aware of the need for rational use of antibiotics.

Biography

Degree in Medicine and Surgery. University of the Basque Country
Specialist in Stomatology. University of the Basque Country
Oral Implantology. University of the Basque Country
Oral Rehabilitation. University of the Basque Country
Doctor in Medicine. University of the Basque Country
Master's degree in Public Health. University of the Basque Country
Master in Design and Statistics in Health Sciences. Autonomous University of Barcelona
Associate Professor at the University of the Basque Country since 1993
Professor of Implantology at the University of the Basque Country since 2002
Private dental practice at Clínica Dental Arteagoitia since 1989

Barriers and facilitators to dental care adherence during pregnancy: An intervention study in a primary health care service

Marcia Helena Baldani*, DDs, MsC, Ph., Juliana Schaia Rocha Orsi, DDs, MsD, PhD, Valeria Krushelski Huk, DDs, MsD, Vera Lucia Leal Wosgerau, DDS, MsC, Ana Elisa Ribeiro, DDs, MsC, Samuel Jorge Moyses, DDs, MsD, PhD
Pontifical Catholic University of Parana, Brazil

The low use of dental services during pregnancy is worrisome due to increased susceptibility to oral disorders in this period and to the possibility of some negative effects on the baby. The objective of this study was to highlight barriers and facilitators to adherence to dental care by pregnant women, when guaranteeing full access at a Primary Health Care (PHC) service. The study had an exploratory intervention design, with a qualitative approach. Over one year, a researcher carried out dental care for the pregnant women enrolled in a PHC facility in a big city in Southern Brazil. Dental care was performed under a protocol developed to improve oral health outcomes, with emphasis on education, preventive care and minimal intervention. When necessary, curative treatment were carried out.

Throughout the study's duration, 69 pregnant women enrolled in the prenatal at the facility, 67 were referred for dental care by the health team, 59 attended the first consultation and 25 completed the entire dental care plan under the protocol. At the end of the year of intervention, we invited some of the pregnant women to take part of a household interview. There were two possible inclusion criteria for this qualitative stage: women who completed the dental care plan or women who did not adhere to the dental prenatal protocol. A sample of five pregnant women who attended all the appointments and completed the protocol and eight who did not adhere were interviewed under a semi-structured script in order to clarify the barriers or facilitators experienced by them. All the interviews were recorded, transcribed and have undergone thematic content analysis. The categories that emerged were: a) predisposing factors: knowledge about the importance and benefits of prenatal dental care, feelings about going to the dentist, distance/ transport availability, number of children, and systemic health condition; b) perceived need factors: oral health condition before and after consultations, c) enabling factors: medical and family support to dental attendance; d) health practices: change of habits, e) service evaluation: satisfaction with received care; f) health system: organization of health services. We concluded that psychosocial factors strongly influence the access and adherence to dental care in the gestational period. Some of the barriers are culture related, such as beliefs and myths regarding the oral health condition and the safety of the receipt of dental care during pregnancy. These barriers can be overcome with oriented health service organization, good treatment and prevention protocols and permanent education of the PHC teams.

Take Away Notes

- We will present a dental care protocol for pregnant women
- We have performed two systematic reviews on the issue, including both quantitative and qualitative research, and the barriers found in our study are similar to those reported for researchers all over the world
- Understanding barriers and facilitators to health care can improve dental practice and can lead to more effective health policies

Biography

The presenting author holds a bachelor's degree in Dentistry from the State University of Ponta Grossa (UEPG), a Master's degree in Public Health from the National School of Public Health of FIOCRUZ and a Ph.D. in Public Health from the Faculty of Public Health of University of São Paulo (USP). She is an associate professor in the Department of Dentistry of UEPG, dean of the Department of Dentistry, and works at postgraduate courses of UEPG (Dentistry, Applied Social Sciences and Health Sciences). She has experience in Dentistry and Public Health, with emphasis on Community and Preventive Dentistry, Epidemiology and Cariology.

Reconstruction of mandibular alveolar defects with chin grafts for dental implant placement. A case report

Mojtaba Bayani*, DDS, MS, Dr. Elham Mohammad Rabei, DDS, MS

Arak University of Medical Sciences, Iran

After tooth loss, alveolar ridge resorption is very common. This process alters the quality of available bone (size and shape) in the dental implant site. Now a best option for rehabilitation of missing teeth is osseointegrated dental implants. A major cause of inhibition of dental implant treatment plan is a bone deficiency in implant site. This bone deficiency may occur in height or width or both of them. Despite recent advances in bone grafts procedure, the use of fresh autogenous bone graft continues to represent the “gold standard” in implant site regenerative surgery. The mandibular chin that located in the intra foraminal region is one of favorable donor sites because this site has a significant bone volume and clinicians can harvest bone from this area for reconstruction bone deficiency in height and width. The bone quality that harvests from the chin is favorable and can used in major jaw defects. Several regeneration procedures by using chin graft have been proposed to increase alveolar bone volume both vertically and horizontally to prepare the ridge for a restorative driven placement of dental implants. This poster presentation, report a novel the chin graft procedure, that we reconstructed intra foraminal defects in width and height with bone harvesting from symphysis area and we are preparing this site for dental implant placement in future.

Take Away Notes

- Reconstruction of intra oral bone deficiency is a hot topic issue in various dentistry conferences
- Autogenous bone graft is a “gold standard” method of jaw bone deficiency
- Dental implant dentistry is a trending topic for all dentists
- This method is a successful and amazing method for chin graft procedure
- This method is simple, less invasive and non-expensive procedure for dental implant preparation sites

Biography

- Vice- Chancellor in Education and Research Affairs, School of Dentistry, Arak, Iran.
- Faculty member of Education Development Center (EDC) of Arak University of medical science.
- Assistance professor in periodontics and Implantology department, faculty of dentistry, Arak University of medical sciences, Arak, Iran

He graduated TUMS dental school in 2011 and immediately committed to specialize in Periodontology in TUMS. Mojtaba graduated from periodontics department in 2014 as first place in periodontics national board exam in 2014. He published various papers in periodontology fields in some valued dentistry journal. Mojtaba has many practices and experiences in Guided Bone Regeneration and implant dentistry.

Canal transportation and centering ability of single file systems using cone beam computed tomography

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Aims: To compare canal transportation and centering ability of Reciproc, Wave One and Edge File rotary systems using cone-beam computed tomography (CBCT).

Methods: Ninety mesiobuccal mandibular uncalcified canals with at least 19 mm length, canal curvature of 15-30 degree (Schneider method), and mature apex were selected. Canals were randomly divided into three groups of 30 teeth and canal preparation with Reciproc, Wave One and Edge File was performed according to the manufacturer's instructions. CBCT images were taken before and after instrumentation in the same position. Apical transportation was calculated in the distances of 2, 3 and 4 mm from the apex. Kruskal-Wallis and Mann-Whitney U test were used to statistically analyze the data. The significance level was set at $P=0/05$.

Results: Mean canal transportation was significantly lower with Edge file ($P<0.001$) followed by Wave One rotary system. Moreover, centering ability of Edge File system was higher than Wave One and Reciproc systems.

Conclusion: Edge File rotary system showed the lowest transportation in both mesiodistal and buccolingual directions and the highest centering ability. Reciproc system showed the highest transportation and lowest centering ability.

Extramedullary manifestation of Acute Myeloid Leukemia in mandible: Importance of early diagnosis of Childhood Cancer

Juliana Francisca Grossi Heleno*, MMS; Vanessa Carvalho Lima; Patrick Resende Godinho; Afonso Pereira Leite Neto, Paula Leite Araújo, Raquel Nascimento Horta, Marina Rodrigues Renna, Yara Monteiro Guimarães

Albert Einstein Hospital of Education and Research, Brazil

Every year more than 300,000 children and adolescents are diagnosed with childhood cancer in the world, according to the International Agency for Research on Cancer. The data are no less alarming in Brazil, where the disease is already the second cause of death among children and adolescents (0 to 19 years). The theme demands the implementation of prevention protocols, early diagnosis and directed treatment with multidisciplinary effort. Leukemias represent the highest percentage of incidence (26%). Among them Acute Myeloid Leukemia (AML) accounts for 15% of the cases, and may be due to a solid extramedullary tumor, composed of cells of the granulocytic lineage called according to the WHO classification, of myeloid sarcoma, which may infiltrate the bone and be the first or only manifestation of the disease. We report a 5-year-old female feoderm resident in a low population density hospital assisted in December 2017, presenting trismus, left-sided mandibular swelling (painless), associated with severe pain in the inguinal region and left leg. She was evaluated by a pediatrician with initial suspicion of Epidemic Parotiditis. Laboratory tests, inguinal ultrasonography, jaw radiography, left hip CT (tomography), and was released after 4 days without a conclusive diagnosis. She then began follow - up with a general practitioner. Bone scintigraphy was requested, showing osteogenic and osteolytic lesions in the mandible - branch and left angle, right iliac bone and acetabulum, and in the left femur and vertebral column - T5, T7, T10 and L5. The child was then referred to Dentistry and an incisional biopsy of the mandible was performed. The definitive diagnosis was of myeloid sarcoma after immunohistochemistry with markers MPO, VIEMENTINE, CD68 positive with review on 02/24/2018, being referred to the out-patient hospital in the capital. In the oral clinical examination, it was also observed the presence of pericoronaritis in the tooth 36, which aggravated the condition of trismus and mandibular swelling. A mandible tomography (Tc) was performed, presenting extensive lithic involvement, with an exuberant periosteal reaction involving the mandibular branch and with superior extension along its branch and condyle. In the retromolar region, the area with the greatest bone rarefaction was observed, with multiloculated aspects with enhancement to the iodinated contrast, with ineffective liquefied areas, suggesting an infectious process in the retromolar region and possible osteomyelitis due to continuity. Under sedation, the patient was submitted to the intervention of the Hospital Dentistry for the remission of the pericoronarite, followed by laser therapy sessions and daily monitoring of bacterial plaque control and opportunistic infections. A CT scan performed 4 months later showed a reduction of mandibular bone infiltrative involvement and complete resolution of the inflammatory process and osteomyelitis, and complete eruption of the tooth 36. Hospital Odontology can contribute to an early diagnosis of tumor manifestations, as well as to promote the resolution of oral infectious conditions leading to a significant improvement of the oral condition, increasing the probability of cure, reducing the possibility of sequelae of the pathology or therapy and favoring the prognosis of the disease.

Take Away Notes

- Childhood cancer represents a worldwide public health problem, as it represents one of the leading causes of death in children
- The importance of fully observing the patient and not directing the treatment to an isolated symptom / sign
- Need to recognize the exhaustion of human and infrastructural resources and, from this, refer the patient to a more specialized center
- Hospital dentistry can contribute to the early diagnosis of tumor manifestations in the mouth, since 80% of the cases can be cured in the initial phase of the disease
- Emphasize the importance of the dental surgeon within the hospital in the control of opportunistic infections and stomatognathic alterations that can negatively interfere in the prognosis of a systemic disease
- Importance of continuing education and better communication between health services and professionals to better care for children with cancer

Biography

Graduated in Dentistry from PUC-MG, Brazil

Academic highlights PUC-MG 1997, 1998 and 1999

Master in Endodontics PUC-MG, Brazil

Postgraduate in Pediatric Dentistry by UFMG, Brazil

Post-graduate in Fixed Prosthodontics and Periodontal Surgery UNIP-São Paulo, Brazil

Postgraduate in Implantology in Sao Paulo, Brazil

Qualification in Hospital Dentistry at Albert Einstein Hospital –São Paulo, Brazil

Dental Surgeon at Hospital da Baleia - BH, Brazil

Professor of Endodontics at FUNORTE - MG, Brazil

Smoking cessation in a dental setting. Comparison of the cost-effectiveness of a high- and a low-intensity treatment at long-term follow-up in a randomized trial

Eva Nohlert

Centre for Clinical Research, Uppsala University and Region Västmanland, Sweden

Background: There is strong evidence for the effectiveness of tobacco control programs, i.a. in the dental setting. We have previously performed a RCT of a high- and a low-intensity treatment (HIT and LIT) for smoking cessation in a dental setting in Sweden. Effectiveness was assessed after 1 year and 5-8 years. However, cost-effectiveness analyses are also required to support in decisions on allocation of societal resources.

Objectives: A cost-effectiveness analysis of HIT and LIT using long-term follow-up effectiveness data and a validation of previous cost-effectiveness results based on short-term follow-up.

Methods: The economic evaluation, performed in a societal perspective, was based on treatment costs and number of abstinent participants after 1 year and 5-8 years. Future disease-related costs (in Euro 2014) and health effects (in quality-adjusted life-years (QALYs)) were estimated via a Markov model. Treatments were explicitly compared in an incremental analysis and the result presented as an incremental cost-effectiveness ratio (ICER).

Results: The more costly HIT led to a higher number of point prevalence abstinent participants after 1 year and a higher number of sustained abstinent participants after 5-8 years, which translates into larger health gains and costs avoided than LIT. The incremental cost/QALY of HIT compared to LIT amounted to 2,431 Euro and 1,020 Euro using short- and long-term effectiveness respectively, which is considered very cost-effective in Sweden.

Conclusion: The HIT was even more cost-effective than LIT at long-term than at short-term. Cost-effectiveness analysis favours the more costly HIT if decision-makers are willing to spend at least 3,092 Euro/QALY for tobacco cessation treatment.

Biography

Eva Nohlert is a dentist with interest in public health and developing tobacco cessation in dentistry. In her PhD work she presented randomized controlled trials assessing treatment effectiveness and cost-effectiveness of clinical-based tobacco cessation programs in Swedish dentistry. She has also worked with treatment intensity and its relation to outcome at the Swedish National Tobacco Quitline. She is presently working at Centre for Clinical Research, Uppsala University, Västerås, Sweden.

Tomographic evaluation of remaining residues after endodontic retreatment and its relation with dentin permeability

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Universidade Tuiuti do Paraná, Brazil

The relevance of the residency of sealing materials against dentin permeability, whether or not interfering with the action of intra-canal medication, will be discussed.

Introduction: Endodontic retreatment is indicated on unsuccessful teeth. Its purpose is to correct the primary treatment failures. This work quantified the presence of residues after endodontic retreatment and verified its influence with dentin permeability.

Material and Method: 120 monoradicular human teeth were endodontically prepared and divided into 6 groups. Groups 1, 2, 3 and 4 were obtured and retreated by the systems ProTaper D3 (PTD3); ProTaper F4 (PTF4); Mtwo-R25.05 (MTR); Mtwo 40.04 (MT40) respectively. The groups 5 and 6 composed Negative Control (CN) and Positive Control (CP). The residual obturator material was observed by tomographic images and measured in the Image Pro Plus Program. Except for the CN group, all were filled with calcium hydroxide and placed in individual vials containing deionized water. The pH was measured at 0, 7, 21, 45 and 60 days. The data were analyzed and compared by the Tukey HSD test of multiple comparisons at 5%.

Results: The groups MT40 and PTF4 were more effective in the removal of residues but did not differ among them ($p > 0.05$). Regarding pH, PTD3 provided less diffusion of calcium hydroxide (2.07 ± 0.41), differing statistically from MT40 (2.55 ± 0.43) and CP (2.49 ± 0.43) ($p < 0.05$).

Conclusion: Dentin permeability was compromised only when more than 59% of the obturator material remained on the root canal walls.

Take Away Notes

- The public will have the opportunity to evaluate that endodontic retreatments, no matter how good the techniques, always leave residual material on the walls of the root canal.
- These residues may interfere with dentin permeability as long as they remain in more than 59% of the area of these walls.
- The cleaning of the dentin walls is directly related to the permeability that influences the action of this medication and in the adaptation of the new endodontic sealer

Biography

Camila Paiva Perin

Master and PhD in Endodontics

Professor of the Dentistry Course of the Tuiuti University of Paraná, Brazil

Coordinator of the Specialization Course in Endodontics of the Tuiuti University of Paraná

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An X-Ray microtomography measurement of a novel bioactive glass varnish in prevention of white spot lesions. (A comparative acid challenge study)

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²- Professor Ferranti Wong2, Professor of Paediatric Dentistry, Institute of Dentistry, Queen Mary University of London/UK. BDS, MSc, PhD, FDSRCS(Ed), FDSRCS(Eng), FHEA. Professor & Honorary Consultant of Paediatric Dentistry Interim Dean/Director of Institute of Dentistry Programme Lead of DCLinDent (Paed Dent) SAB (Paed Dent) Chair, FDSRCS(Ed).

³- Dr. Padhraig S. Fleming2, Clinical Lecturer (Hcc), Institute of Dentistry, Queen Mary University of London/UK. BDent Sc. (Hons.), MSc., PhD, MFDS RCS, MFD RCS, FDS RCS, MOrth. (RCS), FDS (Orth.) RCS, FHEA.

⁴- Professor Robert Hill1, Professor of Physical Sciences, Institute Of Dentistry, Queen Mary University of London/UK . BSc. MsC. Ph.D. DIC. Chair in Dental Physical Sciences, Research Director.

Background: White spot lesion (WSL) represents the early manifestation of the dental caries and can be treated by a non-invasive management. The white spot lesion is still the most complicated dilemma facing orthodontists during orthodontic treatment using fixed appliances. Light cured bioactive glass varnishes releasing calcium, phosphate, strontium and fluoride for controlled remineralisation exhibit promise for prevention of WSL.

Objectives: To evaluate in vitro the effectiveness of application of novel BAG varnish in the protection of enamel surfaces against acid challenge.

Materials and Methods: A total of 6 enamel blocks were selected and distributed randomly into two groups (n = 3). Group A: Clinpro™ white varnish (3M ESPE TM) was used to coat the enamel surface and group B: light cured BAG varnish which consists of BAG (35% SiO₂, 45% CaCO₃, 7.5% Na₂CO₃, 6% P₂O₅, 6% SrF₂) mixed with resin (70/30 UDMA/HEMA, 0.6% EDMAB, 0.3% CQ, and 1% 4META) with glass: resin ratio of 60:40 was used. The enamel blocks were covered with two layers of acid-resistant nail varnish except the exposed enamel surface. Each three enamel blocks were mounted vertically in small plastic tubes and scanned by XMT before and after immersion in 10ml artificial saliva demineralising buffer (pH = 4) over two time periods 24 hours and 96 hours at 37°C.

Result: The evaluation of XMT slices demonstrated the ability of the BAG varnish to prevent the development of WSL after immersion in AS pH4 for 24 hours and 96 hours. The line profiles have confirmed the protective efficacy of BAG varnish in reducing the acid demineralisation.

Conclusions: This ex-vivo acid challenge study illustrates that the novel BAG varnishes can be used effectively to prevent the WSL and protect the teeth from low pH environment in oral cavity. Hence, the novel BAG varnish has the potential to prevent demineralisation and caries.

Biography

I am assistant professor in orthodontics at the Institute of Dentistry, Babylon University / Iraq. I studied Dentistry in Baghdad University and awarded my MSc in 2002. Now I am studying PhD in Dentistry at Queen Mary University of London/UK, my research focusing on the bioactive glass varnishes applied during orthodontic treatment. I am fully funded and supported by Ministry of higher education and scientific research / Republic of Iraq. I have published over 12 papers in orthodontics and dental materials science.

A proposal for OnabotulinumtoxinA injection into temporal area for treatment of chronic migraine

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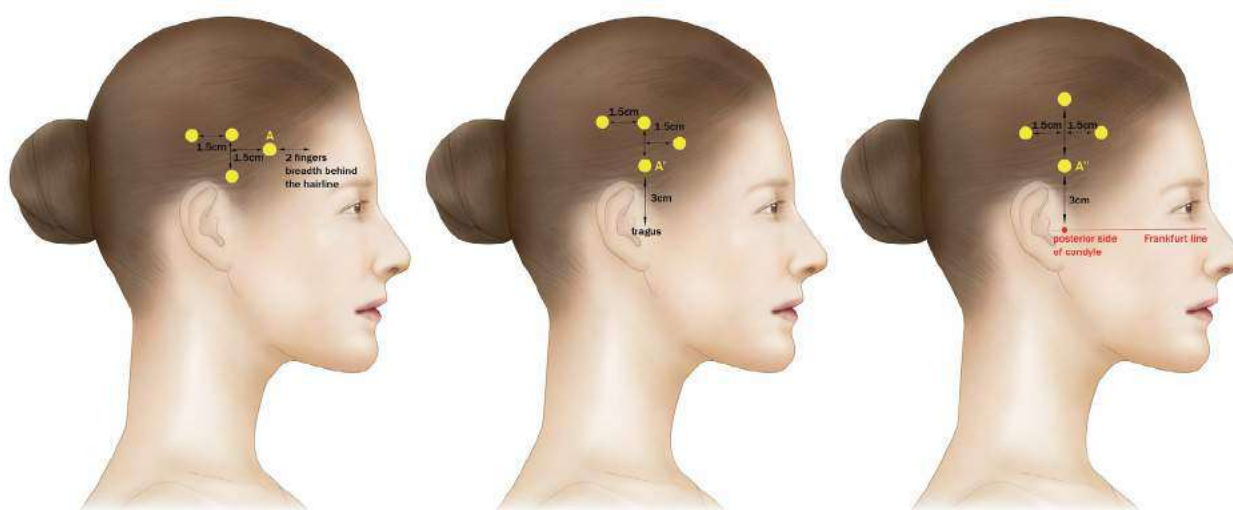
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Botulinum toxin type A (BoNT-A) injections for chronic migraine (CM) have now evolved into a standardized technique involving at least 31 injection sites across the head and neck muscle regions. However, it is suggested that the analgesic effects of BoNT-A are due to inhibiting the release of neuropeptides and pain modulators in sensory neurons, rather than acetylcholine in motor neurons. Considering the suggested analgesic mechanism of this agent, the injections should be administered to sensory nerves, not muscles. In the temporal area, the auriculotemporal nerve (ATN) is the main source of innervation. This study was to determine the topographical site of the ATN as it exits from the deep layer to the superficial layer in order to facilitate injections in CM. ATNs on 20 sides of 11 cadavers were investigated. The topographical structures of the ATN were examined with a focus on the temporal region. The ATN appeared superficially at a mean distance of 9.54mm superior to the Frankfort line (the infraorbital notch and tragus). In that region, the nerve is positioned deeper than the superficial temporal artery and passes between the artery and the superficial temporal vein. After becoming superficial it splits into anterior and posterior divisions. The posterior division ascends in front of the ear and gives off several branches to the skin, while the anterior division ascends in a superior direction, perpendicular to the Frankfort line. The first point (A'') is about 3cm above the condyle posterior pole on the Frankfort line, the second point is about 3cm above first point, and the third and fourth points are both about 1.5cm above the first point, being respectively 1.5cm anterior and posterior to it. Because the ATN travels superficially over the temporalis muscle, the agent needs to be injected subcutaneously. Therefore, BoNT-A should be injected into the temporal area in the ATN distribution area and superficially, under guidance based on anatomical landmarks and a reference axis.



Take Away Notes

- We often meet patients complaining headache in dental clinic. The audience will notice the fact that Botulinum toxin type A injections, only prophylactic therapy specifically approved by FDA for chronic migraine, can be solution in the case of chronic migraine.
- Using the anatomical landmarks and a reference axis, it can facilitate Botulinum toxin type A injections into temporal area and make the injection points consistent.

- The audience can improve the analgesic effects of Botulinum toxin type A, because the injection points are based on consideration of the distribution of sensory nerves.
- This abstract provides anatomical landmarks and a reference axis to inject Botulinum toxin type A (BoNT-A) into temporal region for chronic migraine treatment. Because the analgesic effects of BoNT-A are known to be related to sensory nerves, the injection into the temporal area should be based on the topographical site of the auriculotemporal nerve. Therefore, I think this study is appropriate for “General Dentistry and Evidence Based Care” session.

Biography

I majored in biotechnology in Yonsei University and chose biology as my second major. After graduation I took part in several experimental projects as a research assistant for 2 years in National Cancer Center and Oral biology laboratory in Yonsei University College of Dentistry. After 4 years of studying in Yonsei University College of Dentistry, I worked in Department of Orofacial pain & Oral Medicine, Yonsei University Dental Hospital as an intern and resident, learning about dental medicine and orofacial pain. As a result of the attention and the effort, I was privileged to have an oral presentation in conference of Korean Academy of Orofacial Pain and Oral Medicine and won the grand prize. Now I am fellowship doctor in Department of Orofacial pain & Oral Medicine, Yonsei University College of Dentistry.

Investigation of the epidemiology of Holoprosencephaly and single-stage lip and the columella reconstruction at the University of Pretoria

Su Yin Htun*, Kurt-W Butow,

Head of the Facial Cleft Deformity Clinic University of Pretoria, Department of Maxillo-Facial and Oral Surgery, University of Pretoria

Statement of the problem: Holoprosencephaly is a rare disorder of embryological development (SHH, ZIC2, SIX3, TGIF mutations) that presents with midline clefting of the lip. The incidence has been estimated at approximately 1 in 15,000. Previously, infants with severe holoprosencephaly were thought to die within 1–2 years of birth and seldom to benefit from surgery. Survival has increased with improved perinatal care and support services. The reconstruction of a median cleft with agenesis of the columella is a challenge in that there is a skin deficiency both in the central part of the lip, as well as the columella.

Materials and methods: Facial Cleft Deformity Clinic register of congenital abnormalities was used to identify reported cases of holoprosencephaly between 1983 and 2013. University of Pretoria, the largest facial cleft deformity unit in Africa is one of the IAOMS Training Fellowship Centre.

Methods of data analysis: Updated data of holoprosencephaly was analysed and single-stage lip and congenital agenesis of the columella reconstruction to be presented. The Cronin-modification reconstruction is suitable in cases, where the median cleft lip has already been closed.

Take Away Notes

- Results: Fifty-four cases of holoprosencephaly are found among 3787 cases of Facial Cleft Deformity Clinic up to March 2013. The prevalence is 1.42% and male to female ratio is 1: 3.1. Of the 54 holoprosencephaly cases there are 3(5.5%) White Caucasians, 45(83.3%) Africans, 3(5.5%) Cape Coloured, 3(5.5%) Indian Caucasians and Asian Mongoloid cases are not recorded. Twenty-nine cases (0.76%) had a complete agenesis of the columella, of which five cases were reconstructed and a surprising projective nasal-midfacial growth was documented in three of the five surgically reconstructed cases. Additional one more case could be reconstructed during the fellowship training rotation.

Biography

Dr. Htun is the award winner of the 2012 IAOMS Cleft Lip and Palate and Craniofacial Surgery Training Fellowship and has completed her training Fellowship (2012-2013) at the Arnold Palmer Children's Hospital in Orlando, Florida, USA, University of Pretoria in South Africa and Dr. Hasan Sadikin Hospital in Bandung, Indonesia. She is the invited speaker of International Association of Oral and Maxillofacial Surgeon (IAOMS) Congress/Conferences.

Dr. Htun earned her BDS and MSc degrees from the University of Dental Medicine, Yangon, Myanmar and was a teaching faculty at the Teaching Hospital of Oral and Maxillofacial Surgery, University of Dental Medicine, Yangon where she was trained for maxillofacial surgery until 2008 when she came as a recruited doctor to Jamaica. She has completed IAOMS's Humanitarian Assistance and Disaster Relief (HADR) Credentialing Course at Chile in 2011. She is a Fellow member of IAOMS in 2009 and also a member of AAOMS and BAOMS. Further more Dr. Htun was elected as Fellowship in the Academy of International Academy for Dental and Facial Esthetics (IADFE) in 2015 and Fellowship in the International College of Dentists (ICD) in 2017.

Dr. Htun is the invited speaker of AFAOMS. Her primary clinical interests include craniofacial surgery of birth defects, reconstruction and surgical management of craniofacial trauma. Publications and abstracts related to facial cleft deformity treatment are authored and co-authored.

E-POSTERS

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SEPTEMBER 20-22, 2018
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Quality of life following rehabilitation with implant supported mandibular prosthesis by OHIP-Edent

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Aim: The purpose of this study was to quantitatively evaluate and compare the improvement in Oral Health related Quality of life of 08 male edentulous patients post mandibular implant supported overdentures.

Methodology: 08 completely edentulous male patients with moderately resorbed ridges were selected for whom conventional complete dentures were fabricated. OHIP-EDENT questionnaire was filled up for all these patients. These patients then were subjected to CBCT and planning for 04 implants were done in the interforaminal region. Implant placements were done using a submerged healing protocol. Eventually the mandibular denture was converted to implant supported overdenture with Dalla bona attachments over a period of 3 months. This same set of 08 patients then filled the questionnaire of OHIP-EDENT again. The results were subjected to statistical analysis.

Statistical Analysis : The OHIP-EDENT scores were subjected to paired T Test. $P < 0.01$ was considered significant.

Results: Highly significant improvement was found in the oral health impact profile after rehabilitation with implant supported mandibular overdentures. An overall 27.91% improvement was observed in OHIP-EDENT scores following rehabilitation with implant supported mandibular overdentures.

Conclusion: There is a significant improvement in Oral Health related quality of life of conventional denture wearers after rehabilitation with implant supported overdentures.

Take Away Notes

- Audience would gain an insight into the quantitative results of improvement in Oral Health related Quality of life of edentulous patients after rehabilitation with implant supported mandibular overdentures.
- They can quote this study and give their patients on how much improvement to be expected post this therapy.
- Such study can be done at a much bigger level .
- This study has been conducted on the same patients before and after receiving the therapy. Thus the accuracy level of such a study is higher than comparing 02 different groups with different therapies.

Biography

Dr. Hari Parkash have worked as Director PG Studies / Director General, I.T.S Group of Dental Institutions, Murad Nagar, Ghaziabad, from Oct., 2005 to March, 2016 after superannuation from All India Institute of Medical Sciences AIIMS, New Delhi as Chief, and Centre for Dental Education & Research. He is carrying with him experience of over 51 years as Academician, Clinician, and Researcher & Administrator out of which over 36 years alone at AIIMS.

He is a recipient of several prestigious awards and recently has been conferred Life Time Achievement Award by Indian Prosthodontic Society, Life Time Achievement Award by Indian Dental Association & Honorary Fellowship in Dental Surgery by Royal College of Physicians & Surgeons of Glasgow (2007). He was also Project Director for the National Oral Health Care Programme of Govt. of India, Ministry of Health and Family Welfare for more than six years. He has lectured over 100 Dental meetings/Conferences/ Symposia/ Workshops both in India & Internationally and conducted several CDE Programmes. He has authored and Co-authored over 288 Scientific Papers in both International and National Journals. His book entitled, "Dental Ethics – An Indian Perspective" (An official publication of the Dental Council of India)". As a postgraduate teacher, he has trained over 88 Post Graduates in Prosthodontics and Allied Dental & Medical Specialties. He is Member & Fellow of several National & International Professional organizations. He has been conferred by election Honorary Fellowship in Dental Surgery of the Royal College of Surgeons of England and Fellowship of Royal Society of Medicine, England (Nov, 2013). He has been conferred Honorary Fellowship in Dental Surgery of the Royal College of Surgeons of Edinburgh (2017).

Antimicrobial prescribing across the Berkshire Community Dental Services

Saranjeet Lall (BChD, MJDF RCS Eng) Berkshire Healthcare NHS Foundation Trust

Introduction: Approximately 25,000 people in Europe and more than 700,000 people worldwide die from antibiotic resistance every year. A report commissioned by the UK government predicts this number could rise to 10 million by 2050. This will cause serious consequences for everyone, in particular those undergoing major surgery, chemotherapy, organ or stem cell transplant for which treatment is not possible without antibiotics. We need to ensure we only prescribe antibiotics when absolutely necessary. Patients with infections caused by drug-resistant bacteria are at increased risk of adverse outcomes and death, and consume more resources than patients with non-resistant strains of the same bacteria.

Methods: I examined prescribing habits within the Dental Access Centre (DAC) (provides emergency dental services for those not registered with or cannot be accommodated by a dentist) and the Community Dental Service (CDS) (Provides education and treatment to paediatric and special needs patients).

Data were collected retrospectively over a 2 month period for the DAC and over a 4 month period for two sites within the CDS.

The Prescribing and Management of Dental Infections Tool (Public Health England, the Faculty of General Dental Practitioners (UK) and the British Dental Association) was used to analyse the data.

Data collected consisted of age, gender, diagnosis, medical history, type, dose and duration of antibiotics prescribed, interventions carried out and record keeping.

Results: A total of 71 DAC patients received antibiotic prescriptions. Appropriate prescribing was carried out in 15% of cases with a further possible justification in 13%, and inappropriate prescribing in 64%. Of the 71 patients, 54% had no documented treatment performed. 68% prescribed a 5 day course and 32% prescribed a 7 day course.

A total of 30 CDS patients received antibiotic prescriptions. Appropriate prescribing was carried out in 6% of cases with a further possible justification in 28%, and inappropriate prescribing in 58%. The most common treatment modality was "no treatment" (64%).

Antibiotics were most commonly prescribed in the 0-9 age group.

Nineteen patients returned for follow-up. No patients were reviewed within 72 hours. Three patients had documented resolution of symptoms at follow-up.

In all prescriptions there was no documented check for recent antibiotic courses.

Discussion: Dentists issue 9% of all antibiotic prescriptions in NHS primary care, and 5% of the NHS total. This audit showed we were carrying out inappropriate prescribing in a large number of cases. Our analysis showed that the most common reasons for this were the lack of a documented indication. Patients prescribed antibiotics were also not being reviewed within the recommended time period. Our patients often have special needs or are paediatric patients, and therefore are more difficult to treat. Antibiotics may be seen as an interim measure until definitive treatment is possible. We must ensure that antibiotics are used appropriately; by utilising resources, guidelines and tools. The World Health Organisation states that antibiotic resistance is one of the biggest threats to global health today. We must each take responsibility for antibiotic stewardship.

Take Away Notes

- Antibiotic resistance is an impending global health crisis
- Encourage reflection of own prescribing habits and potential areas of improvement
- Use tools to improve own antibiotic practice
- Consider implications of inappropriate antimicrobial prescribing

Biography

I graduated from University of Leeds in 2012 with a Bachelors in Dental Surgery. Following my foundation training in London I worked as an associate dentist. I wanted to continue my training within a hospital setting and carried out Core Dental Training in Oral and Maxillofacial surgery. I am currently working as a Dental Officer within the Berkshire Healthcare Community Dental Service. During the first two years of my career I have completed my Diploma of Membership of the Joint Dental Faculties at The Royal College of Surgeons of England.

DAY 2

KEYNOTE FORUM

2nd International Conference on

Dentistry and
Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

ICDO 2018



Biography

Dr Isabel Porto is professor and researcher at Federal University of Alagoas-Brazil. She has been very active in the aesthetic dentistry field for 27 years. She held two postdoctoral research training in Brazil and Canada. She guides both master and PhD students in restorative dentistry and development of dental materials. Her researches are focused on composite resins, bonding agents and natural products in Dentistry. She has authored and co-authored many scientific articles in peer-reviewed journals and she has presented several lectures and continuing education courses in Brazil and abroad (USA, UK, UAE, India, Indonesia and Malaysia).

Natural compounds as a potential approach to succeed the desirable bonding stability

Isabel Cristina Celerino de Moraes Porto, Ph.D.

Federal Univeristy of Alagoas - Brazil

Many natural compounds have been reported as inducers of stability of the collagen fibrils and, in consequence, of the dentin bond strength. Two of their most attractive characteristics are their very low toxicity when compared to synthetic agents and they come from renewable/sustainable resources. It is also widely accepted that the degradation of adhesive interfaces occurs as resulting of hydrolytic degradation of the adhesive resin and due to the action of endogenous dentin proteolytic enzymes on exposed collagen fibrils that significantly compromises the durability of bond strengths and the integrity of hybrid layer jeopardizing the longevity of the composite restorations. Thus, this lecture intends to bring up the current knowledge on that topic and discuss some of the methodologies used to evaluate the effectiveness of natural compounds on protection of collagen fibrils as well as stimulate approaches to develop researches on this topic.

This lecture intends to bring up the current knowledge on that topic, the main natural products used to improve the dentin – resin bonding, discuss some of the methodologies used to evaluate the effectiveness of natural compounds on protection of collagen fibrils as well as stimulate approaches to develop researches on this topic.

Take Away Notes

- Clinical approaches
- Research
- This could improve the quality of composite restorations and consequently we can give long last restorations to the patients.
- It can make the restorative approach more efficient.
- It will provide new information about substances and dental materials which will help to reach improvement of dentin-bonding stability of composite restorations



Biography

Born 14.Oct. 1972 in Villach, Austria

Grown up and lives in Carinthia, Austria

Study of Mathematics at University of Klagenfurt, Austria (MSc. in 1996) and at the Technical University of Vienna, Austria (DSc in 1999). Special focus on Applied Mathematics in Biomedical Engineering.

Study of Medicine at the Medical University of Vienna (MD in 2010)

Habilitation (Venia docendi) in Biomedical Engineering (Medical University of Vienna)

Since October 2008: Professor for Biomedical Engineering at the Medical University of Vienna, Clinic of Cranio-Maxillofacial and Oral Surgery; Expert for high technology in medicine / "Facial Esthetics Engineering": Biomedical Engineering, computer assisted surgery, telemedicine;

Main fields of research:

Biomedical engineering

Surgical planning and simulation in esthetical facial surgery

Telemedicine

Low level light therapy (LLLT)

More than 150 scientific publications, book chapters and lectures at international conferences

May-June 2012: Visiting professor at the Università degli Studi di Padova, Italy

Program Committee Member CARS- Computer Assisted Radiology and Surgery (International Congress)

Hobbies: Music (accordion, saxophone, piano); Sailing;

Has been working as reporter for private radio stations for many years (mainly working in the fields of culture and society)

Low-level light therapy: Current state of research and clinical applications

Kurt Alexander Schicho

Medical University of Vienna, Austria

“Photobiomodulation” respectively “Low-Level Light Therapy (LLLT)” is the application of light of different wavelengths, power and energy densities in various fields of medicine, e.g. for tissue regeneration and scarring, blood perfusion and pain therapy.

This lecture provides a brief survey of the current state of research in the field of photobiomodulation in dentistry, in oral- and maxillofacial surgery as well as in plastic, aesthetic and reconstructive surgery. Results from the first controlled laboratory trial on the effect of pulsating cold red light on angiogenesis at the chick chorioallantoic membrane (CAM) are presented as well as clinical cases from plastic surgery.

As light source a Repuls7 (medical product class 2b by Repuls Lichtmedizintechnik GmbH, Vienna), consisting of 7 LEDs (Light Emitting Diodes), emitting pulsating incoherent red light at a wavelength of 635nm was applied. Photos from the blood vessels through a reflected-light microscope were taken once every day and analysed for the junctions of the blood vessels. In the CAM assays treated with LLLT the number of junctions was higher compared to the CAM assays in the control group.

Our results reveal that the effect of photobiomodulation at 635nm wavelength on angiogenesis can be verified in comparison to a control group on the CAM model. Angiogenesis is an important factor regarding wound healing and tissue regeneration. Due to the specific properties of the chicken CAM model, the information value from the clinical point of view is higher than in “conventional” pure in-vitro experiments.

Findings from these laboratory experiments correspond well with experiences from routine clinical application of LLLT in plastic surgery, especially regarding wound healing, and will be presented in this lecture.



Biography

Dr Daniel Kandelman is Associate Professor at the Faculty of dental medicine of the Université de Montréal, Montréal Qc. Canada.

He is also Chief of the Dental medicine Department of the integrated University Center of Social and Health services of South Center of Montreal Island. Montreal, CANADA As a Harvard graduate and expert consultant, he actively participates in many international professional societies and is author of two books and more than hundred scientific articles in preventive dentistry and dental public health.

He has participated to many TV, radio, and print media presentations.

Identification and management of high carie's patients

**Daniel Kandelman DMD,
Dr.CD,MPH,FACDQ,CM.Associate
Professor, Faculty of dental medicine**

Université de Montréal, Qc. Canada

The new concepts on dental plaque, carie's susceptibility, and saliva components and associated properties.

The inter-relation in between the above factors He will then explain why there is an urgent need to approach high carie's patients in looking what are the preponderant risk factors, more specifically what are the preponderant factors of risk in order to make an appropriate diagnostic and be able then, to select and implement appropriate preventive and curative treatments.

Pr Kandelman will then describe the proposed type of diagnostic tools used as related to each specific identified preponderant factor (dental plaque, saliva and nutritional parameters.

He will finally suggest the appropriate preventive and curative treatments related to and following the diagnostic preceding tests and show some clinical cases and dental treatments performed on high carie's risk patients.

Take Away Notes

- Better understand the new reality of oral environment
- Acquire a new approach to better control caries development in high carie's population.
- Select appropriate diagnostic tools and implement adapted preventive & curative treatments.
- This presentation should expand research in development of new diagnostic tools for identifying caries' risk at a very early stage of dental caries.

DAY 2

SPEAKERS

2nd International Conference on

Dentistry and
Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

Motivating patients in the management of Dental problems

David G Gillam* BA, BDS, MSc, DDS, FRSPH, FHEA, C, Barts and the London School of Medicine and Dentistry
Queen Mary University of London, UK

One of the problems with treating periodontal disease as with other chronic dental conditions is that the patient requires continuous monitoring and therapy to prevent recurrence of the condition. Implicit in this management is the requirement on behalf of the patient to comply with the instructions proved by the clinician throughout the treatment and maintenance process. The issue of patient compliance, however is a problem that is also recognized by the Medical profession and the question arises is how to motivate a patient to be engaged in their own treatment. According to Khan et al. (2012) non-compliance can be due to several factors such as those that are 1) patient-centred, 2) therapy-related, or 3) healthcare system – related. It is therefore essential for the clinician to establish a good rapport and close working partnership with the patient to help encourage changes in their behaviour to successful treat and manage the dental problem. In other words, there needs to be a collaborative relationship with both the clinician and the patient where the patient becomes more involved in their treatment and subsequently takes ownership or autonomy for their problem. The aim of the presentation is to address the various issues with patient compliance and the apparent lack of motivation in patients who fail to acknowledge their own responsibility in looking after their own health.

The problem of non-compliance when dealing with patients undergoing periodontal maintenance therapy is a challenging endeavour for the committed Dental Care Professional. Traditional approaches to educating and motivating patients based on a practitioner directed philosophy appear to be ineffective. The introduction of patient centred approaches such as Motivational Interviewing that actively encourage the involvement of the patient in taking ownership of their oral condition is essential in current dental practice. It is acknowledged that for many Dental Care Professionals this approach may be difficult to implement due to a number of different constraints in the practice environment. This approach may also be very challenging for some patients and the Dental Care Professional will need to show patience and empathy with the patient during the duration of the treatment.

Clinical Relevance: The benefits in motivating patients by clinicians may have a major impact on the oral health of the individual patient, aiding compliance as well as encouraging changes in the individual's life style behavior.

Take Away Notes

- To recognize the problems associated with non-compliance and the lack of motivation of patients and how this may impact on the successful management of the dental problem
- To recommend various strategies using clinical scenarios to encourage patients to take ownership of their oral health
- To gain awareness of how unsuccessful treatment during the treatment through patient non-compliance may impact on the Quality of Life (QoL) of your patients.
- To consider what changes in the patient's behaviour are required for the successful management of the condition

Biography

I graduated from Edinburgh Dental School in 1977 and have been involved in Dentistry over the last 40 years. I have worked in both clinical practice and in University Dental Hospitals as well as in Industry (1998-2001) initially with SmithKline Beecham and subsequently with Block Drug Company. From 2003 to 2008 I worked with a Clinical Research Organization and currently I am a Senior Clinical Lecturer in Periodontology at the Bart's and the London School of Medicine and Dentistry QMUL in London (2009-). My main interests are in the area of the Management of Dentine Hypersensitivity and I have published over 85 papers on a number of dental topics as well as contributing to several book chapters.

Temporomandibular disorders and headache therapy for the dental practice

Robert J. Huvar, DDS

American College of Oral and Maxillofacial Surgery, USA

The control of pain, its diagnosis and management is a daily obligation for all dental professionals. Yet, many patients with chronic temporomandibular disorders(TMD) and headache can be dismissed, misdiagnosed, and/or treated incorrectly.

Temporomandibular disorders are a group of conditions affecting the temporomandibular joint and/or the muscles of mastication. Temporomandibular disorders(TMD) may present along with many comorbid pain syndromes, including headache.

Temporomandibular disorders(TMD) and primary headache can be persistent and debilitating musculoskeletal and neurological disorders, together affecting up to one sixth of the population at any one time.

Early on, temporomandibular disorders(TMD) were thought to be most often associated with musculoskeletal disorders and migraine was thought to be solely a cerebrovascular disorder.

This presentation will provide relevant descriptions of epidemiology, pathophysiology, diagnosis, and treatment of headache and temporomandibular disorders, clarifying their relationship and offering a role of the trigeminal nerve complex in their relationship.

Take Away Notes

- Describe the epidemiology and pathophysiology relationship of headache and temporomandibular disorders
- Clearly describe the TMJ structure and function
- Discuss the differences of inflammatory joint disorders and muscular pain.
- Describe the management of treating headaches by targeting TMJ disorder
- Combination of multiple therapies

Biography

Dr. Huvar, a graduate of The University of Michigan School of Dentistry in 1984, he served in the US Air Force dental service from 1984-1987, and completed his surgical training at University of Illinois at Chicago and Cook County in 1991. A diplomate of the American Board of OMFS, and a fellow in the AAOMS and the ACOMS. He is a published author, who has lectured internationally, receiving multiple awards recognizing his commitment to his patients and specialty.

Correcting gingival levels to improve periodontal health & overall esthetics

Gerald C. Green, D.M.D.

Lancaster General Hospital, USA

Dr. Green will provide a brief overview of various soft tissue grafting procedures and how they have evolved over the years. He will also review treatment of cases with excessive gingival display and show how proper treatment of altered gingival levels can significantly enhance the level of restorative treatment. In addition, Dr. Green would like to share some of the tools that he and some of his referring DDS utilize to improve their level communication so that they are able to provide the best service for the mutual patients. These tools are also helpful in communicating with patients and may improve your case acceptance.

Take Away Notes

- Diagnose and treatment of patients with altered gingival levels
- Treatment plan cases more efficiently and improve the level of your restorative treatment
- Enhance communication with your referring dentists, patients and lab

Biography

Dr. Green maintains a full-time periodontal practice in Lancaster Pennsylvania. He is member of numerous dental organizations and a leader for his Spear study club. He has been the periodontal preceptor for the Lancaster General Hospital GPR since 2012. In addition to mucogingival surgery, Dr. Green's also performs a multitude of other procedures including bone regeneration, the placement of dental implants and he is a certified LANAP practitioner. In his spare time he enjoys playing golf and traveling with his wife Aurora.

What are the advantages of digital planning and custom orthodontic appliances in Orthodontics?

Breuning Karel Hero* Phd, DDS, Kau, Chung How BDS, MScD, MBA, PhD, MOrthRCSEdin, FFD RCSIre, FDS RCPSClas, FAMS Chung H. Kau Chairman and Professor at the Department of Orthodontics
University of Alabama, Netherlands

Orthodontic treatment will rapidly change during the next years. The use of intraoral scanners, CBCT radiographs, and 3D extra oral images, will allow the use of a “virtual head” for treatment planning and appliance fabrication. Custom made orthodontic appliances, such as individual brackets, indirect bonding, custom wires, lingual braces and aligners will allow efficient and fast orthodontic treatment.

The use of the intraoral scanner and the smartphone photographs during treatment, will allow evaluation of the treatment progress and the correction of treatment to achieve the treatment goal planned, without delay.

Patient will know the result of treatment before the actual start. During treatment the will be informed about the treatment progress. Off course, every treatment should be changed when needed. Monitoring during treatment will improve the progress.

After treatment, retention of the treatment result will be needed. Evaluation of treatment stability using intraoral scanners and the smartphone of the patient can be used to prevent a severe relapse of the treatment result.

Take Away Notes

- The audience will know what the influence of 3D imaging on orthodontics will be
- They will learn how to use the image of an intraoral scanner for the improvement of treatment
- The use of intraoral scanners and CBCT machines will provide a way to improve treatment planning, treatment monitoring and treatment follow up
- Monitoring of the treatment by the patient with their smartphone will be a practical solution for more efficient orthodontic treatment

Biography

Dr. Hero Breuning, studied dentistry in the Netherlands. After graduation, he started a 4 years study to become an orthodontist.

He maintained a private orthodontic practice in Tiel, the Netherlands for more than 25 year. The topic of his PhD study was intraoral distraction during orthodontic treatment. He was assistant professor 3D imaging at the University of Nijmegen. Hero Breuning published over 60 articles in peer viewed journals, was a reviewer for the AJODO and other orthodontic journals. He published a book on : Digital planning and Custom Orthodontic Appliances in 2017. He lectured in more than 17 different countries.

The provision and utilisation of domiciliary dental services for elderly people

Alexander Schembri* B.Ch.D(Hons),Dip.Ger,M.Ger,FICD

University of Malta, Malta

As the number of dentate elderly people increases, the dental profession will be presented with a greater challenge. Dental care, treatment and hygiene will require additional commitments of time, expertise and equipment by those responsible for providing dental treatment. There is a need to develop domiciliary dental care to deliver appropriate oral health care to people whose circumstances make it impossible, unreasonable or otherwise impractical for them to secure care in a fixed clinic.

Take Away Notes

- The audience will be more aware of population ageing and its implications to dentistry.
- Be aware that there is a growing number of the elderly persons who might face barriers to access dental health and thus the provision of domiciliary dental care is the only option. These elderly could be homebound or in residential homes.

Biography

Graduated in 1989 Bachelor of Dental Surgery, post graduate diploma in Gerodontology and Geriatrics in 1993 and Masters in Gerodontology and Geriatrics in 2003 from the University of Malta. Inducted fellow of FICD in 2016. Founder member of the Maltese Association of Geriatrics and Gerodontology. Past president of the European College of Gerodontology ECG 2016/17. Visiting lecturer at University of Malta for past 5 years being responsible for the teaching of Gerodontology.

Evaluation and quatification of de-and remineralization processes on dental hard tissues

Sorin Andrian* Ph.D., Simona Stoleriu Ph.D

University of Medicine and Pharmacy, Grigore T.Popa” Iași, Romania

Dental hard tissues can be demineralized by acids with no bacterial involvement having exogenous or endogenous origin or by acid etching. Exposure of enamel prisms and the lost of interprismatic and prismatic substance were showed by SEM evaluation of enamel when acidic beverages, mouthwashes or etching acid were investigated. As a result of different acidic attacks, high enlargement of the dentinal tubules due to the demineralization of the inorganic part of the dentine and exposure of the collagen matrix were also observed by SEM evaluation. Saliva provides a good protection of dental hard tissues in direct relation to an optimal supply of mineral ions. In our studies morphological assesment of enamel and dentine surface by SEM investigation showed that the severity of demineralizations was lower when saliva was present at the moment of aggressive contact with acidic beverages. Products like toothpastes or gels containing sodium fluoride 0,2%, 0,24% or 0,4%, stannous or aluminum fluoride provided an increased gain of calcium and phosphate ions when they have been applied on dental had tissues in acidic conditions. Association of fluoride with other active ingredients increased the protective effect of the products. Hydroxyapatite in conjunction with calcium lactate or fluoride demonstrated a high remineralization potential of the products when compared to only fluoride containing products. CPP-ACP strategy led to increased enamel, dentine and cementum protection against acidic attacks and demonstrated an increased remineralization potential on primary and permanent teeth. The effect was demonstrated to be higher in dentine when compared to enamel and cementum. The consumption of milk, cheese and broccoli before the ingestion of acidic drinks significantly reduced the aggressive potential of these beverages.

Take Away Notes

- The strategies and products used for remineralization of incipient caries lesions or for increase resistance of dental hard tissues against acidic attacks are of great interest for dental practitioners, for researchers and in teaching process
- The comparison of different products efficacy in increasing tooth resistance might lead to a better clinical approach in particular conditions
- The results of our studies will stimulate the research in the field by using other clinical or laboratory methods for investigation

Biography

Professor Dr. Sorin Andrian was born on 09. 03.1962 in Iași, Romania. In 2002 he became professor at Cariology and Operative Dentistry subject matter, Faculty of Dental Medicine, University of Medicine and Pharmacy „Grigore T. Popa” Iași. He was head of the Department of Odontology and Periodontology, deputy dean of the faculty, member of University Ethical Committee, president of Regional General Dental Council Disciplinary Committee. He is a member of the University Senate. He was manager of postgraduate master in Odontology and he is doctorates manager. He published as author and co-author more than 45 articles in ISI journals, 103 articles in journals indexed in national and international databases. He is author of 3 monographs and 16 book chapters. He is also deputy editor of Journal of Roumanian Medical Dentistry and member in editorial board of Journal of Oral Rehabilitation and Stomatology Edu Journal and ORCA senior member.

Evaluation of effectiveness of composite cure of three bulk fill composites in comparison with other conventional composites

Ali Abdul Wahab Razooki Al- Shekhli

Fujairah Campus, UAE

Aim and Objectives: The aim of this study to evaluate the hardness ratio of many new bulkfill composites by using the micro-hardness testing to measure the hardness ratio of a 4 mm composite specimens as an indicator for their effectiveness of composite curing (80%) in comparison with other conventional types.

Material and methods: Three packable bulk-fill composites were used in this study : Tetric N Ceram (Ivoclar Vivadent) , Filtek Bulk fill Posterior composite (3M ESPE) and X-tra Fill Bulk-fill packable composite (VOCO) .And two conventional composites will be used also namely: Quadrant Universal L.C Composites (CAVEX) and Composan Bio-esthetic Nano-ceram Composite (PROMEDICA).10 specimens were prepared from each type of composite material , each composite specimen was prepared by compressing sufficient amount of composite into a mould (6 mm in diameter and 4 mm in thickness) (total specimen n=50. Each composite specimen will be cured for 20 seconds from the top surface only with Woodpecker LED light curing unit by making the curing tip in intimate contact with the celluloid strips on the surface of the composite .After that the composite specimen was incubated in distilled water at 37 C for 24 hours .Then the 50 composite specimen were submitted for micro hardness testing for both top and bottom surfaces by making three indentations of both surfaces and considering the mean micro hardness number for each surface .The hardness ratio of each specimen was calculated by using the formula ($HR = \frac{\text{Mean vicker's hardness of the bottom}}{\text{Mean vicker's hardness of the top}} \times 100$) .

Results: The micro-hardness test showed a significant difference between the five groups being tested (ANOVA, $p < 0.05$). The material with the greatest micro-hardness values at top was X-trafill followed by Filtek Bulkfill packable , Composan, Universal Quadrant L.C and Tetric N Ceram respectively. The material with greatest microhardness at bottom was Xtrafill followed by Filtek Bulkfill packable , Universal Quadrant L.C , Composan and Tetric N ceram respectively. The material with the greatest depth of cure was Quadrant Universal L.C followed by X-trafill, Composan, Filtek Bulkfill packable and Tetric N ceram respectively.

Conclusion: Xtrafill bulk-fill composite showed the highest hardness values at top, bottom surfaces and hardness ratio amongst the materials tested, while Tetric N Ceram didn't achieve the standard depth of cure of 80% bottom to top ratio compared to other packable bulkfill composites used in this study. There was no difference in surface hardness of bottom of both Composan and Universal L.C Quadrant.

Biography

Academic Rank:

Associate Professor and Deputy Dean of the college of Dentistry/ Fujairah campus since 1/9/2011

Degrees:

- Ph. D Conservative Dentistry, University of Baghdad, Iraq, 2005
- M.Sc. Conservative Dentistry, University of Baghdad, Iraq, 2000
- B.D.S., University of Baghdad, Iraq, 1993

Other related experience:

- Lecturer & Assistant Professor, College of Dentistry, University of Baghdad, 1996-2006

Consultations:

- Since 2008- Consultant Conservative Dentist at VIP Clinic AUSTN Fujairah
- 2000-2006 Specialist dentist in Private Clinic (Conservative specialist).
- 1996-2000 Dentist in Private Clinic (G.P).
- 1993-1996 G. P. Dentist in all the dental departments of the Iraqi Ministry of health.
- Member of examination committee for 6 master degree students (defense) in Ajman University in Restorative Department for getting master degrees in Restorative Dentistry.

Academic Training:

- Implant workshop / AUSTN/Fujairah , 2013
- I -race endodontic workshop by FKG, AUSTN/Fujairah , 27/2/2013
- Implantology workshop , The use of bone substitute in combination with dental implants for esthetic zone and sinus lift augmentation/Dubai AEEDC conference, 3/2/2014
- I -race endodontic workshop, AUSTN/Fujairah , 2014, 2015

Prosthetic abutments: Surface smooth or treated? A contemporary view

Vilton Zimmermann de Souza*, Ms, Elizabeth Ferreira Martinez, PhD

Safo Leopoldo Mandic - Campinas Safo Paulo, Brazil

From the consolidation of surface treatments of dental implants and knowledge of the cellular mechanisms of osseointegration, studies have highlighted the importance of sealing connective tissue and implant, in order to avoid contaminants from the oral environment and biofilm installation. The lecture promotes a contemporary discussion about the use of dental prosthetic components with or without surface treatment. Based on scientific evidence and our in vitro study, we evaluated whether different titanium surface treatments promoted by acids at different times promote increased secretion, proliferation and viability of collagen fibroblast cells.

Take Away Notes

- The lecture promotes a contemporary discussion about the use of dental prosthetic components with or without surface treatment. From the consolidation of surface treatments of dental implants and the knowledge of the cellular mechanisms of osseointegration, implants research converged to the study of the sealing between bone tissue and the surface of the implant, even knowing that the epithelium acts as a first barrier, avoiding the tendency of the epithelium to migrate apically . Osseointegration is of utmost importance in the success of dental implants, but the biological sealing of the perimplantar connective tissue is crucial to maintain the long-term success of dental implants. Contemporary studies have shown that different types of prosthetic abutments in dental implants may provide a benefit to the connective tissue in contact with the prosthetic abutments. However, further human studies should be performed to obtain more evidence of these results, obtaining several possibilities for new studies.

Biography

Graduate in dentistry, Master and specialist in implantology and Specialist in dental prosthesis.

Immediate maxillary & mandibular molar implants without grafting

Steven J. Traub, D.D.S., Albuquerque Oral & Maxillofacial Surgery

American Institute of Oral Biology, USA

Today we will discuss immediate mandibular and maxillary molar implants without socket grafting.

Take Away Notes

- The audience will be able to appropriately evaluate, diagnose & perform immediate molar implants.

Biography

I was born and raised in Albuquerque, New Mexico (USA). I did my residency in Chicago, Illinois at cook county hospital, finishing in 1981. I have a private practice limited to Dento-Alveolar, Pre-Prosthetic, Implant, and Temporomandibular joint surgery, along with facial trauma and reconstructive surgery as well, my practice includes a strong emphasis on care of patients with mental and physical handicaps and deformities.

Is oral health a priority for South Asians residing in high-income countries?

Mehak Batra* – PhD, MDS, Dr Bircan Erbas, BSc(Hons), MSc, PhD., Dr Sabrina Gupta, MSc, PhD

Dr Bircan Erbas, BSc(Hons), MSc, PhD, Dr Sabrina Gupta, MSc, PhD.

LaTrobe University Melbourne, Australia

Background: Migration involves the loss of one's own familiar environment and a constant struggle between adaption to a new environment or culture and preserving their own tradition or practices from their homeland. Migrants from South Asia such as India, Sri Lanka, Pakistan, Nepal, Bangladesh, Bhutan, Burma, Maldives and Afghanistan are often considered to have poor oral health due to numerous factors that include economic, cultural, religious, dietary, social, language and communication challenges. Given that migrants from these regions form a large proportion of the migrant population in high-income countries, it is important to better understand their knowledge, beliefs, and behaviours of oral health.

Objectives: Our aim is to conduct a systematic review of dental studies involving South Asian migrants, which focus on knowledge, beliefs, and behaviours.

Methods: A systematic search of seven electronic databases and hand searching for peer-reviewed human studies published, in English, were carried out. Each study was assessed based on explicit inclusion and exclusion criteria designed before commencing the search. Quality assessment of the studies was conducted.

Results: Out of 1614 records identified, only 19 were included for synthesis based on the eligibility criteria. The 19 selected studies were further classified into quantitative studies (12) and qualitative studies (7). Numerous barriers to assessing dental services were emphasized in the qualitative studies such as absence of cultural sensitivity in existing services, language barriers and lack of trust in the health professional. Whereas the results of the quantitative studies showed wide variation in migrant's behaviour specifically observed in their frequency of tooth brushing or visiting a dentist. Beliefs impacted by culture play a significant role in dental health. Surprisingly, oral health was reported as the least health priority for South Asian migrants.

Conclusions: There is an urgent need to address a growing problem among South Asian migrants and their oral health behaviours. Our review provides evidence that dental health services available in high-income countries are not suited to South Asian's beliefs and behaviours. Major policy changes are necessary at the community level to educate both the South Asian communities and oral health practitioners to reduce this growing health disparity.

Take Away Notes

- The findings are useful for any researcher, or relevant stakeholder who might be interested in furthering their understanding of Oral Health beliefs and practices of the South Asian migrants in high income countries. Beliefs and behaviors are the major underlying factors for perception of oral health in any community and through our review we have provided comprehension and analysis of these factors.
- This review has collated information on oral health practices of South Asians that is currently not available in one medium. Considering the increasing cultural diversity of populations in higher income countries, findings from this review will be of pertinence to policy makers, dental and other health practitioners as well as researchers investigating migrant oral health. It will assist in forming the basis for dental health practice for South Asian migrants thus assisting practitioners. The findings will also be relevant for the development and design of future oral health interventions and studies. The findings will allow for the designs to be more relevant to the South Asians' oral health practices.

Biography

Mehak Batra is currently pursuing her PhD in Public Health in Australia. Mehak has always been interested in this field with her majors in the post-graduation program being Public Health Dentistry. Since completing her post-graduation, Mehak has been working as a researcher in the field of Public Health Dentistry. She has collaborated regularly with diverse research faculties on a number of different research projects. Mehak has 13 research publications in varied international journals. She has also been a presenter at a number of conferences. Mehak has a keen interest in biostatistics and advanced statistical methods for clinical research. She is a strong supporter of gender equality in professional practice.

Clinical and microbiological evaluation of a Brazilian red propolis

Lidia Audrey Rocha Valadas Marques*, Ph.D.; Joao Hildo De Carvalho Furtado Junior, Ph.D.; Said Gonçalves Da Cruz Fonseca, Ph.D.; Marta Maria De França Fonteles, Ph.D.

Federal University of Ceara, Brazil

Fixed appliance therapy leads to an increase in biofilm accumulation around orthodontic bands and brackets. It has been noted in some studies that the number of cariogenic and gingival bacteria tends to increase in patients with bonded fixed orthodontic appliances, because brackets and band are plaque retentive factors. Propolis is a complex resinous mixture collected by bees, with high medicinal, historical and economic value. The chemical composition of propolis depends on the biodiversity and the phytogeographic position of the beehives. Among the types of propolis stands out Brazilian Red Propolis (BRP). Brazilian Red Propolis (BRP) can be found in beehives located in the stem of mangrove bushes and sea and river coasts in Brazilian northeast. Its medicinal use is extensive due to its pharmacological properties, among them we mention: anti-inflammatory, antimicrobial, antioxidant and antiproliferative. The objective of this presentation is to present results about Brazilian Red Propolis (BRP) containing-toothpaste against cariogenic and gingival bacteria in orthodontic patients.

Take Away Notes

- The product is safe and practical
- The product can be indicated as an antimicrobial alternative for use in patients with dental plaque accumulation
- The product has a patent deposit but this does not avoid other researchers to do research with it
- The methodology used can be applied to other natural products containing-toothpastes (depending on the chemical compatibility)

Biography

Dr Lidia A.R. Valadas is bacharel in Dentistry from Federal University of Ceara, Brazil. Currently is PhD in Drug Development from Federal University of Ceara and made part of PhD researcher at King's College London (UK). She has authored indexed publications ISI/SCOPUS/PubMed/Scielo and has worked in national and international researches related to microbiology and natural products. She is also part of the editorial committee and is reviewer in national and international journals. She is member of European Organisation of Caries Research (ORCA) since 2015 and abstract reviewer of the Cariology Research Group (CRG) of International Association for Dental Research (IADR).

How could the thickness of the occlusal splint for temporomandibular joint discderangement be measured?

Ayman Hegab

AL-Azhar Univeristy, Egypt

I nternal derangement of the temporomandibular joint (TMJ) has been defined as an abnormal positional relationship of the disk relative to the condylar head, fossa, and/or articular tubercle and is the major cause of jaw pain, clicking, and/or crepitation and limitation of opening .Different treatment modalities have been proposed for the management of internal derangement of the TMJ, including occlusal splints, physiotherapy, psychological treatment, medications, and surgical procedures. Of these modalities, splint therapy is considered a reversible nonsurgical treatment modality for the management of internal derangement (6) because it reduces the pain in the TMJ caused by excessive occlusal pressure from external forces. Thus, the splint restores blood circulation to the TMJ by maintaining a wide gap between the mandibular condyle and the mandibular fossa. While the effectiveness of occlusal splints for treating temporomandibular internal derangement remains debated, the use of splints is presently considered the most common treatment modality for temporomandibular disorders (TMDs). However, the effect of occlusal splint therapy on the disk-condyle relationship is still controversial. Published studies have described different vertical thicknesses varying from 1 mm to 8 mm. The best method to measure and select the accurate vertical thickness of the occlusal splint is still unsettled. Therefore, it is possible that improvement of the internal derangement of the TMJ after the application of a splint might vary between patients and among different studies. Hence, the selection of the vertical thickness of the occlusal splint should be based on scientific evidence. To our knowledge, no existing studies have thoroughly investigated changes in the disk-condyle relationship with different vertical thicknesses of the occlusal splint by using magnetic resonance imaging (MRI) to select the most accurate and effective vertical thickness for the treatment of disk displacement with and without reduction. The present study aimed to investigate a new method of using MRI to assess the most effective vertical thickness of the occlusal splint for the management of TMJ internal derangement.

Cariostatic effect of Riva star: Silver diammine fluoride without the black staining

Wei-Te Huang*, Prof. Paul Anderson, Dr. Saroash Shahid

Queen Mary University of London, United Kingdom

Recently, Silver Diammine Fluoride (SDF) has drawn considerable attention from dental researchers due to its outstanding effectiveness in preventing and arresting dental caries, and its non-invasive method of application. As SDF combines the remineralizing effect of fluoride with the antibacterial effect of silver, it is more effective in caries control than other minimally invasive treatments such as fluoride varnish. However, a major disadvantage of using SDF is the black staining of the treated lesion. Riva Star (SDI Ltd; Asutralia), a commercial SDF product, included saturated solution of potassium iodide (SSKI) to prevent the discoloration by formation of creamy-white AgI. This SDF/KI treatment has been reported to possess high anti-bacterial property. However, its inhibitory efficacy on human enamel demineralization is still unclear. In our in vitro study, enamel samples were topically treated with SSKI (1 g/mL), SDF (3.16 M) or Riva Star (SDF/KI) using micro-brush, after being demineralized in pH 4.0 buffered acetic acid for 4 h. Next, the treated sample was put back into the acid for further 4 h demineralization. Throughout the 8 h demineralization study, calcium, silver and fluoride ion selective electrodes (ISEs) were used to monitor the concentrations (activities) of ions, and the rates of Ca²⁺ release before and after treatment were used to obtain the percentages of the reduction in the rates of enamel calcium loss (PRCLenamel). Later, these samples underwent the Vickers micro-hardness test (HV), and the inspection of scanning electron microscopy (SEM) and energy dispersive X-ray analysis (EDX). The mean PRCLenamel are 10.2±5.8 %, 61.1±4.5 % and 61.7±3.8 %, for SSKI, SDF and Riva Star treated groups, respectively. No Ag⁺ release was observed in SSKI and Riva Star treated groups. The mean reductions in HV of enamels are 108.2±12.9, 64.1±7.3, and 58.1±10.7, for SSKI, SDF and Riva Star treated groups, respectively. No black staining was observed on the Riva Star treated sample. In conclusion, Riva Star can inhibit enamel demineralization without black staining the lesion.

Take Away Notes

- Get an overview of SDF and Riva Star (SDF/KI) in management of dental caries.
- Understand the procedures of using Riva Star in clinical practice to treat dental caries.
- Audience can know the efficacies of Riva Star treatment in inhibiting enamel demineralization, which causes no discoloration and excessive Ag⁺ release.
- By comprehending the proposed mechanisms of SDF and Riva Star, audience can be able to teach others about this novel therapeutic agent used in caries treatment.

Biography

I am a qualified dentist from Taiwan, who is now doing PhD in Queen Mary University of London (QMUL). My project is about the inhibitory effects of silver compounds, including silver diammine fluoride (SDF), on demineralization of human enamel. I have attended several international conferences and have been awarded IADR CARIOLOGY RESEARCH GROUP SCIENCE AWARD 2017 for my conference paper titled "Cariostatic Effects of Commercial Silver Diammine Fluoride Components on Enamel" presented at the 95th Annual Meeting of IADR (International Association for Dental Research) in San Francisco, USA.

Orthognathic surgery and orthodontics - A clinical view

Marcellus Guimarães*, Specialist in Orthodontics Uniararas- SP, Master in Orthodontics Uniararas- SP, Ongoing PhD in Orthodontics São Leopoldo Mandic –SP

IBPO Teixeira de Freitas BA, Brazil

The presentation will be based on a clinical view of orthognathic surgery, showing how the interaction enters the specialties can help in a good diagnosis and consequently having good results for the patient. It will be shown examples of clinical cases so that we can understand the benefits and the improvement quality of life are directly linked to a good targeting of treatment in all aspects.

We want to improve the dentist's understanding of the impact of dentofacial appearance on the social and professional coexistence of an individual, since it is the responsibility of the professional to warn about the dental implications of malocclusion.

Our objectives are: Aesthetics, Functional occlusion, Phonation and breathing, Periodontal, muscular and temporomandibular joint health, It enables reintegration into society by interfering psychologically.

This work is of fundamental importance so that all of the dentistry area can guide and jointly treat as best as possible the cases that have surgical indication in our day to day.

Biography

Graduated in Dentistry from ITU - Itaúna-MG

Master's and specialization in Orthodontics by Uniararas / UniCamp-SP

Ortho-surgical preparation course with a Master's degree

Improvement in Implant Dentistry by ABO-DF

Skeletal anchorage courses in Ertty Systems

Courses of anchorage esquelética with Janson

Self-ligating course with Prof Daniel Tocollini and Iduilton G.

Theacher of Specialization in Orthodontics, IBPO- Teixeira de Freitas -BA

Assessment of antimicrobial effect of Methylene Blue and Silver nanoparticles irradiated by diode laser on induced caries model (An In vitro Study)

Mohamed H Zaazou^{*1} Ph.D., Ali Safan^{*2} Ph.D., Marwa Kamal Salla³ Ph.D., Osama Mosallam Zaazou⁴ Ph.D., Heba A EL Danaf⁵ MSc.

¹Oro-dental Research Division, National Research Centre, Egypt

²Dental Laser Application Department National Institute of Laser Enhanced Sciences (NILES) Cairo University, Egypt

³Medical Microbiology and Immunology, Kasr El Aini Faculty of Medicine Cairo University, Egypt

⁴Restorative Dentistry, Oro-dental Research Division, National Research Centre, Egypt

⁵Restorative Dentistry, Oro-dental Research Division, National Research Centre, Egypt

Aim: Assessment of the antibacterial competence of 650nm diode laser, Methylene Blue (MB) and Silver Nano-Particles (Ag NPs) on Streptococcus Mutans present in 180 biofilm-induced- caries models.

Methods: One hundred and eighty (n=180) dentin discs were obtained. Each disc measured in 4x5x6 mm. Samples were pre-conditioned with sterile artificial saliva at 37 °C for 2 hours. Specimens were equally divided into 6 groups. One group was untreated (control) and the other 5 groups were subjected to either MB, Ag NPs, Laser 650, the combination of MB and Laser 650 and the combination of MB, laser 650 and Ag NPs.

Results: Comparison of the log10 mean Colony Forming Units milliliter (CFU/ml) values of each of the treated 5 groups and the control group was found statistically significant (P-value <0.05). The combination of MB, laser and Ag NPs recorded the highest (95.28%) reduction percentage of CFU/ml. MB alone represented the least efficient anti-bacterial effect with 74.09% reduction percentage of CFU/ml. The efficiency difference among the Ag NPs treated group, the Laser 650nm treated group and the combined MB/Laser 650nm treated group was found statistically insignificant

Conclusion: Combination of MB, laser and Ag NPs were found that they present the most efficient antibacterial activity.

Take Away Notes

- Knowing the most effective methods for cavity disinfection before restoration.
- Exploring the effect of photodynamic therapy on cariogenic bacteria.
- Studying the effect of Diode laser with combination of Nano- particles in cavity disinfection.

Biography

Mohamed Hussein Zaazou, Researcher Professor & Head of Oro-dental research division, National Research Center (NRC) Cairo, EGYPT. He was born in Cairo on sept. 8th, 1961. Dr. Zaazou earned his Bach, of Oral and Dental medicine, Faculty of Oral and Dental Medicine, Cairo University in 1983, Master degree in Restorative dentistry, Faculty of Oral and Dental medicine, Alexandria University in 1991 and Ph.D. in Environmental science (Medical Research), Institute of Environmental science, Ain-Shams University in 2003.

Prof. Zaazou held the following positions at NRC: Dentist at the Department of Human Genetics (1989), Assistant Lecturer at Department of Human Genetics (1992), Researcher at Department of Human Genetics (2003), Assistant Prof. at Department of Restorative dentistry (2008), Prof. Restorative dentistry (2013), Head of Department of Restorative dentistry, (2008), Head of Oro-Dental Research division (2016 till now). Head of the dental clinic in NRC

Professor Zaazou supervised 18 MSc degrees, 21 (MD & PhD) degrees and has published over 40 scientific publications in the topics of Restorative dentistry. He participated in several conferences & meetings. He also Participated & contributed in 5 Scientific Research Projects in the National Research Center, Participated in organizing 3 International Conferences & 3 workshops held in Cairo, Egypt. Managed the dental clinic, National Research Center, Cairo Egypt (2016 till now). He also work as part time professor of Operative Dentistry- faculty of dentistry, MSA University (2009 till now)

Characteristics of human natal stem cells cultured in allogeneic medium

Sherine Adel Nasry

National Research Centre, Egypt

Recently, human natal dental pulp stem cells (hNDP-SCs) have been characterized in vitro and it has been shown that they satisfy criteria defining human mesenchymal stromal cells (MSCs), as proposed by the International Society for Cellular Therapy. However, these results were reached in the presence of xenogeneic expansion medium, which has the potential to alter the cells' functional capacity. To determine the validity of the previously reported hNDP-SCs characteristics for human cell therapy, we have cultured hNDP-SCs in allogeneic expansion medium.

Methods: Two hNDP-SC lineages were isolated from vital natal teeth, donated by a healthy newborn female and cultured in 2 % platelet rich plasma (PRP). Analysis of the phenotypic expressions, proliferation rates, viability, telomerase length and in vitro adipogenic, osteogenic and chondrogenic differentiation potentials of two hNDP-SCs lineages (Zn001 and Zn002) were performed.

Results: both lineages displayed similar morphology, proliferation rates, adipogenic, chondrogenic and osteogenic differentiation potential. Telomere shortening by 41.0 % and 13.49% occurred from 3rd till 14th passage for lineages Zn001 and Zn002 respectively. Viability of both lineages was higher than 90 %. Flow cytometry demonstrated that both lineages were positive to the majority of tested markers, including markers, which were negatively, expressed when hNDP-SCs were cultured previously in xenogeneic medium. Using immune-cytochemistry the cells were shown to express beta III-tubulin, nestin, neurofilaments and Nanog.

Conclusion: PRP used as allogeneic medium is a suitable cultivation medium for hNDP-SCs.

Biography

Dr. Sherine Adel Nasry was born in Cairo, Egypt, in 1966. She received her education in the German School (DSB) in Egypt, and is fluent in Arabic, English, and German languages with fair knowledge in French. In 1989 she received her B.Sc. in Oral and Dental Medicine as well as the MSc and Ph. D degrees in Oral Diagnosis, Oral Medicine and Periodontology from Faculty of Dentistry, Cairo University, Egypt, in 2004 and 2008, respectively. In 2014 she was also awarded a Diploma in the Management of Technology from Nile University.

In July 2004, she joined the National Research Centre, Cairo, Egypt as an Assistant Researcher. Was promoted to Researcher in 2009 and to Associate Professor in 2014, and is currently holding the position of Ass. Prof. in the Surgery and Oral Medicine department, Oral and Dental Research Division, NRC, Egypt.

Her current research interests and publications include Regenerative Medicine in the Oral Stem Cell Research Field as well as Oral Medicine and Diagnostic Research. Dr. Sherine is a member of The Egyptian Dental Syndicate, The Egyptian Dental Union, The International Association for Dental Research, The Arab Society of Medical Research, and the Technology, Innovation and Commercialization Office (TICO) in the National Research Centre

Previous experience includes working as general practitioner at the Ministry of Health, a Lecturer at the Faculty of Oral Medicine and Periodontology in Misr University for Science and Technology (MUST). Dr. Sherine also participated as a Private Investigator (PI), Co PI and as a project member in several national projects and in several national and international stem cell workshops. Certificate of achievements received include certificate of outstanding performance in the research output in 2012 and 2013 in the NRC as well as several certificates of appreciation from the International Association for Dental Research and from the International Dental Congress in Cairo/Egypt.

Development, clinical and microbiological study of low abrasivity dentifrice for the control of candida albicans in dental prostheses

Edilson Martins Rodrigues Neto*, Ph.D , Maria Luisa Bezerra De Macedo Arraes, Msc, Ana Cristina De Mello Fiallos, Ph.D, Tamara Gonçalves De Araujo, Ph.D

Federal University of Ceara/ Catholic University Center of Quixada, Brazil

The dental prosthesis has the function of restoring function and aesthetics to the edentulous patient. However, its use requires a lot of important care, since oral rehabilitation does not only mean the installation of the prosthesis in the patient's mouth, but the treatment and the hygiene of the same and the tissues of the oral cavity as well. Oral hygiene and prosthetic devices promote greater longevity of the prosthetic treatment performed, since the accumulation of bacterial biofilm and fungal infections on the resin that forms the prosthesis saddle can lead, as a consequence, to inflammatory papillary hyperplasia, prosthetic stomatitis and chronic candidiasis. The dentifrices present in their formulations abrasive components - poorly soluble inorganic salts, which aim to remove stains and assist in the removal of the biofilm. Among the abrasives, soluble sodium bicarbonate causes less wear than insoluble calcium carbonate, which is highly abrasive. Abrasion of the acrylic surface is a negative factor of the common dentifrices, which results in the excessive wear and deterioration of the acrylic with the appearance of grooves that allow the aggregation of residues and microorganisms. Faced with the limitations of mechanical hygiene methods, the action of substances extracted from plants, such as tannins (polyphenols) and phenolic compounds, have been studied as proposed antimicrobial agents because they present specific action in the control or development of microorganisms in dental prostheses and oral mucosa. *Punica granatum* Linn., Popularly known as pomegranate, a native shrub of Asia, cultivated in warm climate areas have extensively described pharmacological properties, resulting in its indication for various uses, including: immunomodulation, arteriosclerosis, bacterial infection, fungal infection, infection parasite and periodontal disease. This presentation aimed to develop and characterize a low abrasive dentifrice based on hydroalcoholic extracts of *Punica granatum* Linn (pomegranate) for the microbiological and clinical control of *Candida albicans* in removable dental prostheses.

Take Away Notes

- The product is safe and practical
- The product can be indicated as an antimicrobial alternative for use in cleaning of dental prostheses
- The methodology used can be applied to other natural products containing-toothpastes

Biography

Dr Edilson Martins Rodrigues Neto is pharmacist from Federal University of Ceara, Brazil. Specialist, MSc, Ph.D in Clinical Pharmacology, Specialist in toxicology, Specialist in pharmaceutical clinic. He is currently a professor at the Catholic University Centre of Quixadá. He has authored indexed publications ISI/SCOPUS/PubMed/Scielo and has worked in national and international researches related to microbiology and natural products. He is also part of the editorial committee and is reviewer in national and international journals. He is effective member of Brazilian Society of Dental Research and Brazilian society of pharmaceutical education.

Perceptions, experiences, and outcomes implementing PBL (Problem- Based Learning) at the Faculty of Sciences of Tocantins – FACIT, Brazil

Carollyne M. Tiago*, Ph.D Orthodontics, Angela M Silva, MSc Orthodontics, Carla Cecilia Alandia-Román, Leandro Silva Conceição, Marcelo R. Moreira, Orthodontics
FACIT- Brazil

For many years, dental education has focused on traditional lecture-based education. With this traditional pedagogic approach students solely received information from the lecturer and unconsciously they merely dealt passively with new situations, making no effort toward thinking and innovation. Since its implantation, the Dentistry course at Faculty of Science of Tocantins, (FACIT) in Brazil, has been working with multidisciplinary curricula based on active learning and has introduced the Problem-based Learning method (PBL) as a tool for the teaching-learning process. The training and integration of this method have been a challenge. Thus, this presentation aims to show how PBL was implemented at FACIT, focusing on the outcomes, pros, and cons from the student 's and instructor 's point of view and also, the perception of FACIT based on its 5 years of experience with this method.

Take Away Notes

- To stimulate critical and reflexive thinking about PBL in Dental Education
- To observe a real experience of a Multidisciplinary curriculum and evaluate the positive and negative characteristics
- To analyze the challenges of Multidisciplinary curriculum implementation and how this can be used to benefit students' learning in a contextualized way.

Biography

Dr. Carollyne Tiago completed her dental education at Unievangélica, Brazil; She received a PhD in Orthodontics from São Leopoldo Mandic, Campinas, SP, Brazil. She is currently a professor and Head of the Department of Orthodontics and she works in the management of the Faculty of Sciences of Tocantins – FACIT, in Araguaína, Brazil.

Immediate implant placement in esthetic sites: Treatment of dimensional bone and soft tissue alterations post-extraction

Claudio Luiz Moretti Filho, DDS

UNIC - University of Cuiabá, Brasil

The key to achieving pleasing esthetics in implant dentistry is a thorough understanding of the biological processes driving dimensional bone and soft tissue alterations post-extraction.

The aim of my oral presentation is first to characterize the extent of bone and soft tissue changes post-extraction and second to identify potential factors influencing tissue preservation in order to facilitate successful treatment outcomes.

The facial bone wall thickness has been identified as the most critical factor influencing bone resorption and can be used as a prognostic tool in order to identify sites at risk for future facial bone loss subsequent to tooth extraction. The knowledge of the biological events driving dimensional tissue alterations post-extraction should be integrated into the comprehensive treatment plan in order to limit tissue loss and to maximize esthetic outcomes.

Over the past two decades it has become evident that post-extraction dimensional alterations inevitably occur due to the resorption of the bundle bone as a tooth-dependent structure, and to related factors such as a lack of functional stimulus and a lack of vascular blood supply due to the missing periodontal ligament and genetic information. Even though numerous bone and soft tissue augmentation techniques have been suggested for regenerating the lost tissue structures, establishing clear guidelines for facilitating implant placement and achieving predictable treatment outcomes remain a significant challenge in clinical practice.

Several surgical techniques have the potential to modulate the degree of these inevitable changes, such as flapless tooth extraction, ridge preservation and immediate implant placement.

Flapless tooth extraction is important to avoid additional bone resorption from the bony surface related to the elevation of the mucoperiosteal flap. Flapless tooth extraction has been shown to reduce the amount of bone loss in the early healing phase 4–8 weeks post extraction compared with full-thickness flap elevations.

Even though attempts to preserve the ridge have failed to arrest the inevitable biological process of dimensional ridge alterations post-extraction, in particular with respect to the preservation of the alveolar bone volume, studies have shown that grafting of extraction sockets with biomaterials and the use of barrier membranes is able to reduce the degree of dimensional alterations.

It has been suggested that placement of implants into fresh extraction sockets with a bone-to-implant gap of 2 mm or less would prevent remodeling and hence maintain the original shape of the ridge.

Take Away Notes

- The audience may use the information gained from my oral presentation on a daily basis in their clinical routine. The subject addressed will help the dentist to understand the vents that occur in the dental socket after the extraction of a tooth and to make the correct decision regarding the need for dental extraction. Topics covered will be:
- Bone alterations following tooth extraction
- Soft tissue alterations following tooth extraction;
- Flapless tooth extraction;
- Ridge preservation techniques;
- Immediate implant placement.

Biography

Graduated in Dentistry from the University of Cuiabá. Master in Integrated Dental Sciences UNIC - University of Cuiabá Specialist in Implantodontics by the School of Dentistry - MT. Specialist in Dental Prosthesis by the School of Dentistry - MT. Update Course on Oral and Maxillofacial Surgery by the School of Dentistry - MT. Teacher of the Graduate School of Dentistry of Rondonópolis – UNIC, Teacher of the Post-Graduation in Dentistry - MT: Course of Update in Buccomaxillofacial Surgery. Postgraduate Professor at the School of Dentistry - MT: Specialization Course in Implant Dentistry.

Role of dentist in craniomaxillofacial trauma surgery case

Su Yin Htun

Oral and Maxillofacial Surgery Department University of Technology, Jamaica

Objective: In dental school education, we encourage students/dentists to get involved in their community and offer help in diagnosing facial fractures when presented to local medical clinics or emergency rooms where there may be no OMF service. These cases can prove to be quite interesting and the service offered by dentists quite appreciated by the medical personnel and more so the patients.

Discussion: Craniomaxillofacial trauma can range from an avulsed tooth as a result of a simple fall, to pan-facial injuries in the context of a polytraumatized patient involved in a road traffic accident and gunshot wound to the orofacial region. Among its major causes are auto accidents, sports injuries, work-related mishaps, falls, gunshot and acts of violence.

Regardless of aetiology, similar principles apply to all oral and maxillofacial injuries and it's important that to receive immediate and comprehensive care.

Facial trauma in general involves injuries to the soft- or hard-tissue structures of the face, mouth or jaws — including the teeth, the bones of the jaws and face, and the tissue of the skin and gums. Isolated injuries to teeth are quite common, and may require the expertise of various dental specialists. Oral surgeons usually are involved in treating fractures in the supporting bone or in replanting teeth that have been displaced or knocked out. These types of injuries are treated by one of a number of forms of splinting (stabilizing by wiring or bonding teeth together). Other dental specialists, such as endodontists or restorative dentists, may be called upon to assist. For instance, an endodontist may be asked to perform root canal therapy, or a restorative dentist may need to repair or rebuild fractured teeth. In the event that injured teeth cannot be saved or repaired, dental implants are often now utilized as replacements for missing teeth.

Conclusion: The proper treatment of facial injuries is now the realm of specialists who are well versed in emergency care, acute treatment, long-term reconstruction, and rehabilitation of the patient. One of the facial trauma case will present a nasty facial injury and the remaining work to be done deals with the dentist.

Biography

Dr. Htun is the award winner of the 2012 IAOMS Cleft Lip and Palate and Craniofacial Surgery Training Fellowship and has completed her training Fellowship (2012-2013) at the Arnold Palmer Children's Hospital in Orlando, Florida, USA, University of Pretoria in South Africa and Dr. Hasan Sadikin Hospital in Bandung, Indonesia. She is the invited speaker of International Association of Oral and Maxillofacial Surgeon (IAOMS) Congress/Conferences.

Dr. Htun earned her BDS and MDS degrees from the University of Dental Medicine, Yangon, Myanmar and was a teaching faculty at the Teaching Hospital of Oral and Maxillofacial Surgery, University of Dental Medicine, Yangon where she was trained for maxillofacial surgery until 2008 when she came as a recruited doctor to Jamaica. She has completed IAOMS's Humanitarian Assistance and Disaster Relief (HADR) Credentialing Course at Chile in 2011. She is a Fellow member of IAOMS in 2009 and also a member of AAOMS and BAOMS. Further more Dr.Htun was elected as Fellowship in the Academy of International Academy for Dental and Facial Esthetics (IADFE) in 2015 and Fellowship in the International College of Dentists (ICD) in 2017.

Dr. Htun is the invited speaker of AFAOMS. Her primary clinical interests include craniofacial surgery of birth defects, reconstruction and surgical management of craniofacial trauma. Publications and abstracts related to facial cleft deformity treatment are authored and co-authored.

Honors and Awards

- 1) Award winner of 2012 IAOMS Training Fellowship in Craniomaxillofacial Surgery and Cleft Lip and Plate for Hands on Training one year (2012-2013).
- 2) FIADFE, Elected as Fellowship in the Academy of IADFE, International Academy for Dental and Facial Esthetics (2015).
- 3) F.I.C.D, Elected as Fellowship in the International College of Dentists ICD (2017).
- 4) The best paper award for the paper entitle Diagnosis, Decision making and Definitive treatment in Oral and Maxillofacial Surgery which was submitted and presented in 28th Myanmar Dental Conference and 9th FDI-MDA joint meeting (2008).

DAY 3

KEYNOTE FORUM

2nd International Conference on

Dentistry and
Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY



Biography

Doctor: Domenico Baldi born in Genoa, Italy on February 2nd, 1963.

Graduated Physician (M.D) 1987 with honors at Genoa School of Medicine .

Specialized D.D.S. 1990 at University of Genoa.

Learned 1998 in Implantology at Pisa School of Medicine.

Adjunct Professor at the University of Genoa

Prosthodontics and Implantology Professor in a High Level course at the University of Genoa

Professor in the Surgery High Level Course at La Sapienza-University of Rome

Prosthodontics and Implantology Professor in a International Master at the University of Genoa

Several scientific articles published

Coauthor of the book " Handbook of Bioceramics and Biocomposites" Springer International Publishing Editor: Iulian Vasile Antoniac

Speaker in several national and international congresses

SIOPI (Italian Society for Implantology and Prosthodontics) Member

QDT-quintessence of dental technology-(Italian edition) Editorial Board Member

IPA (International Piezo Surgery Academy) Active and Founding Member

SRPDMF (Societății Române de Protetică Dentară și Maxilo-Facială) Honorary Member

EAED (European Academy of Esthetic Dentistry) Affiliate Member

ICP (International College of Prosthodontists) Constituent Member

IADDM (International Academy for Digital Dental Medicine) Active Member

IPA (International Piezo Surgery Academy) President 2014-2016

Private practice in Genoa

Minimally Invasive Implant Surgery

Domenico Baldi MD, DDS

University of Genova, Italy

Now a days the minimally invasive surgery play a crucial role in dentistry and especially in oral surgery, so when we talk about implant and regenerative surgery, we must know how to perform the classical techniques such as sinus lift, split crest and block grafts starting on well know and adequate anatomical knowledge and surgical skill , but we must also be able to propose a less traumatic and cheap treatment to our patients. For this reason, in this lecture we are going to demonstrate the possibility of using narrow implants instead performing a bone augmentation surgery where the space is not enough for standard implants, therefore the use of Narrow implant grant us much more solutions not only in implant surgery but also in prosthetic rehabilitation.



Biography

Qualifications (Medical degrees):

- Doctorate candidate in Medical education, The Academy of Leadership Sciences Switzerland (ALSS)

- Master of Dental Surgery in Endodontics, The University of Hong Kong

- Bachelor of Dental Medicine and surgery, King Abdulaziz University

Current Position/Job:

- Consultant Endodontist

- Director of Dental Supplies and Materials & Equipment of Endodontics department

- Coordinator of Endodontic department

- Clinical supervisor of Saudi board dental student and dental interns

- Faculty of Graduate Programs: Master of Sciences in Leadership, Academy of Leadership Sciences Switzerland

- Director for Academy of Leadership Sciences Switzerland in Saudi Arabia

I am author of some scientific articles in reputed journals. I have presented number of dental lectures, as well as dental courses in and out of Saudi Arabia.

New approach in endodontic retreatment by intentional replantation

Fouad Abduljabbar

King Abdulaziz medical City, Jeddah, Ministry of National Guard, Saudi Arabia

Intentional replantation (IR) is a concept that has been known for over a thousand years, it is defined by Grossman (1966) as an atraumatic extraction of a tooth and its reinsertion into its socket immediately after endodontic treatment and apical repair is done extra-orally. Some authors consider intentional replantation to be a last option; whereas others consider it as another treatment modality. However, in cases where a dental implant, nonsurgical retreatment or surgical treatment is not possible, intentional replantation may be a viable treatment option. Recent case reports have demonstrated that with good case selection, intentional replantation can be a reliable and predictable procedure. The sensitive portion of the treatment is removal of the tooth atraumatically.

In the presentation, some cases of Intentional replantation will be reviewed that show the feasibility of the procedure in different situations.

Take Away Notes

1. Evaluate the therapeutic effects of the intentional replantation on oral function
2. Discuss the indications and contra-indications for intentional replantation
3. Present variable success rate as reported
4. Determine the crucial steps of intentional replantation
5. Treatment of affected teeth based on the location



Biography

Dr. In-Sung Luke Yeo served as a dental officer (Captain) at Special Forces Commands in the Korean Army for three years. He got his Ph.D. in biomaterials, in vitro studies of implant surfaces at Seoul National University in the year, 2007. He was an Assistant Professor at Seoul National University from 2010 to 2014. Now, Dr. In-Sung Yeo is an Associate Professor at the same university. His major research is about biologic responses to artificial biocompatible surfaces.

Screw loosening mechanism in implant-Supported restoration

In-Sung Luke Yeo, D.D.S., M.S.D., Ph.D.

Seoul National University, Korea

Screw loosening is one of the most frequent complications in implant-supported restoration. However, many dental clinicians misunderstand the exact mechanism of screw loosening. Screw loosening can trigger peri-implantitis more severely than what dental clinicians usually think. Just a change of abutment screws cannot solve this complication. The decrease of preload, the repetition of tightening the abutment screw, the effect of friction on the stability of implant-abutment connection, and hard-soft tissue response to strain around the implant-abutment connection are four key words to correctly understanding the screw loosening mechanism. This presentation talks about the cause of screw loosening, theoretical methods to eliminate screw loosening and translation of these methods in clinical situation, mechanical understanding the implant-abutment connection structure, and biological understanding the implant-abutment connection structure.

Take Away Notes

- Know the cause of the screw loosening complication.
- Understand the effect of screw loosening on the soft tissue.
- Understand the effect of screw loosening on the hard tissue.
- Comprehend screw loosening-derived peri-implantitis and how to manage such a complication.

Acknowledgment

This work is supported by National Research Foundation of Korea (NRF) grant funded by the Korean Government (MSIP) (No. NRF-2016R1A2B4014330).

DAY 3

SPEAKERS

2nd International Conference on

Dentistry and Oral Health

SEPTEMBER 20-22, 2018
ROME, ITALY

A comparison of different dental implant designs. Does it really make a difference?

Gregory K. Louie DDS, DICOI

Tri Valley Implant Study Group, USA

Dental implants are available in a multitude of materials and designs. However, some designs may be more ideal in a given situation than others. Most implant designs use grade 2, 4, or 5 titanium. Other designs cryo treat the titanium or use other materials, such as tantalum. Implant macro design topology include thread pitch angle, thread depth, thread number, and thread cross sectional designs. Micro design topologies are the microscopic surface roughness of various forms created by acid etching, surface blasting, and chemical treatments. Active chemical treatments involve using calcium, phosphorous, fluoride, and other compounds to create a bioactive surface. The design of the implant-abutment interface, usually categorized as an external, or internal connection, may be proprietary depending upon the implant system. Platform switching designs are the mismatch of a smaller diameter abutment mated to a larger diameter implant body interface and may have beneficial biological effects.

Take Away Notes

- To understand the importance of implant to abutment integrity for long-term bone retention
- To understand the importance of the implant macro design in regards to initial primary stability as it relates to bone quality
- To understand the relevance or non-relevance of implant surface treatments
- To be better able to select a particular implant design for a particular patients' given oral situation

Biography

Dr. Louie started his dental experience as a dental technician before receiving his dental degree from the University of the Pacific in 1986 in San Francisco, CA. After practicing as a General Dentist for several years, Dr. Louie completed advanced training in dental implants at Brookdale Hospital in Brooklyn, NY, before completing advanced specialty training in Prosthodontics at the University of Illinois at Chicago. He created the Tri Valley Implant Study Group Implant Continuum in 2013. He holds memberships with the ADA, CDA, ACP, AACD, AAID, ICOI, and AO.

Medical treatment of dental caries and periodontal disease: A new era!

Jacques Eugene Veronneau*, DMD, PhD¹, Blerta Laiti-Xhemaji, PhD(c)², Agim Begzati, DMD, MSc². Teuta Kutilovci DMD, MSc², Aida Rexhepi, DMD, PhD² Ariana Bytyci DH³, Ioana Chifor, DMD, PhD⁴, Mindra-Eugenia DMD, PhD⁴, Laura Rusu, DMD, PhD(c)⁴, Radu Chifor DMD, PhD⁴, Iulia Clara Badea DMD, PhD⁴, Romana, Avram DMD, PhD⁴, Alexandru Florin Badea MD, DMD, PhD

¹Servidence, Canada; ²Prishtina University, Kosovo; ³Dental Hygienist, private practice of Pristina, Kosovo, ⁴Department of Preventive Dentistry, University of Medicine and Pharmacy from Cluj-Napoca, Romania, ⁵Department of Anatomy and Embryology, University of Medicine and Pharmacy from Cluj-Napoca, Romania Worldwide scientific premieres, 12 years of work; natural product tested solution for caries/periodontal diseases

RCT testing how cariogenic bacteria can limit topical fluoride varnish effectiveness. RCT testing xylitol 25 % toothpaste therapeutic effect on early childhood caries, Observational designs testing antibacterial xylitol 25 % toothpaste on cariogenic bacteria of infants, schoolers, adults and on key periodontal bacteria of adults. In clear, evidences are given, without fluoride era, on: ECC carious lesions clear decreasing, on cariogenic bacteria key decreasing and on its sustainability, on caries risk changing, on indirect remineralization benefits, on periodontal high risk bacteria decreasing and on key periodontal markers for cancer, decreasing.

According to recent NHANES stats, the prevalence of caries in at-risk individuals increased between 1994 and 2012, despite exposure to various fluoride products. Discussions will be explained the actual limitations we gain with topical fluoride vehicles by giving modern author's unsuccessfully trials and trial on the reason behind these results. Notions and reports of highly infected dental patients in caries and periodontal disease insisting on key threshold for the disease process. Xylitol brief history will be review and insisting on the actual gap, an efficient xylitol toothpaste. Then, original author studies will be reported. A trial of 201 infants and their parents, testing xylitol 25 % toothpaste will be reported using ICDAS system and saliva collection. Cavitated vs. initial lesions results will be detailed. On test group, antibacterial pre/post effect of the same toothpaste will be reported by key categories. An adult high caries risk observational design will described and results on cariogenic bacteria after three-month of daily tooth brushing, reported. For the first time, xylitol effect on Lactobacilli are described. Another original observational design, will allow author to report the minimal period of daily tooth brushing to get the optimal antibacterial effect and if this obtained effect can be sustained for six months. Finally, also for the first time in the world, periodontal bacteria were assessed pre/post three-month daily brushing using xylitol 25 % tooth brushing. Key high periodontal process were assessed and three main periodontal bacteria associated digestive cancers in population studies, were estimated. This combined effect will be reported. So, at the end, audience will be in phase with modern primary prevention taking into account a medical treatment.

Take Away Notes

- (International project that leaded to the main discovery since 1952 (fluoride toothpastes on market) in dental prevention. Topic will change dental patient's oral health, dental practice modern recommendations, primary prevention tools, teachings contain on caries and periodontal diseases)
- Tooth brushing with dentifrice is the most common form oral hygiene in the world: we will revolutionize your knowledges/practices and daily advices related to your patients
- These original researches, unknown, will change the teaching and potentially expand evidence based on we what discovered
- This xylitol toothpaste with its therapeutic and antibacterial effects will avoid fluorosis, will prevent cross familial SM/L contamination, will increase topical fluoride real effectiveness on high caries risk patients, will put primary prevention with practical tools
- This training process is based on shared researches that will increase competencies leading to better efficiency
- Most of your guest speakers at your congress, are presenting on tertiary prevention: we need a new era where primary prevention is leading

Biography

Jacques Veronneau, DMD, Msc, Phd is the author, He is a former assistant professor at McGill University and actual chief of Servidence, startup dental company. Original Servidence's mission is to realize in vivo research through his several dental practices and by so, as a human LAB, develop new

evidences based on products that can be then commercialized. He has researches on three continents: he trained about 100 academic colleagues on modern caries detection systems of nine countries and created a network of researchers. He is the only French Canadian as cariologist.

Oral health and quality of life among cleft lip and palate patients

Paul K. Sæle

University of Bergen, Norway

The lecture will deal with the orthodontic part of an interdisciplinary evaluation of 30 consecutive patients with unilateral cleft lip and palate patients (CLP) at age 40 years. Orthodontic parameters will be compared to quality of life and oral health. The CLP protocol will be explained and the outcome of the treatment evaluated. The lecture will include clinical findings, treatment aspects and research among CLP patients.

Title: The orthodontic part of an interdisciplinary evaluation of 30 consecutive patients with unilateral CLP at age 40 years. Orthodontic parameters compared to quality of life and oral health.

Objective: To study facial growth, occlusal and dental status in 30 patients and to compare the findings to the patient's own subjective perception of oral health and quality of life.

Material And Methods: 30 consecutive patients born with a unilateral CLP from the CLP archive of Bergen Norway were evaluated. All treated by the same protocol and by the same surgeon.

All patients were clinically and radiologically examined at the age of 40 years. The dental status was evaluated from OPG and the growth was evaluated by lateral cephalostatic measurements.

Oral health and quality of life was evaluated from standardized questioner and interview.

Results: All results showed individually variations.

The sagittal relations did reveal reduced growth of the midface and retrognathic maxilla.

If we compare the dental arch to a perfect situation our group did need some extra orthodontic adjustments, but 2 patients had a perfect situation.

3 patients were professionally evaluated as need for orthognathic surgery, otherwise minor deviations.

For the oral health there was minor subjective discomfort.

5 of 16 patients had a small fistula to the nose. 2 had some subjective discomfort with soft food and drinks to the nose, but not on a daily basis.

Satisfied patients with a good quality of oral health

Discussion And Summary: Follow up studies are important for evaluation of the quality of the service we are giving to the CLP patients.

The professional evaluation of outcome of the treatment does tell only part of the total outcome of treatment. If the subjective perception of satisfaction coinciding with the professional perception of an outcome of treatment, the outcome has been a success. This study with a long follow up is unique, but the size of the sample in CLP studies is always crucial, as well in our study. The evaluation is of major importance to decide if we will stick to our protocol.

Challenges of rehabilitation with removable dentures without implants

Newton de Araujo Holanda Gurgel., M.D.

Private Dental Clinic, Gurgel Odontologia, Brazil

In order to succeed in an oral rehabilitation with prostheses, we must overcome some challenges, and the most common ones are, reestablish the height of the lower third of the face and the posture position of the mandible, simultaneously return its function, esthetics, stability of the prosthesis when it is removable, in order to provide comfort and patient satisfaction

In this opportunity I will share with you the technique that I use at my own clinic in Brazil on daily basis and I also teach in my classes which is about how to overcome these kinds of challenges. This technique is based on the “technique of therapeutic cloning in total prosthesis” -written by Gomes, T. & Castro, in his books published in Brazil 2009 and 2017. In conventional oral rehabilitation, all technical and aesthetic modifications are included directly in the new prosthesis, which can cause muscle discomfort and patient dissatisfaction, since the patient did not have time to “try” this new condition. I always work with gradual changes, testing the modifications directly on the patient. These gradual changes give condition to the mucosa and the neuromuscular system of health recovery and adaptation to changes. I see this part of the treatment as a therapy and this approach is valid for any case of oral rehabilitation, for instance, overdentures, (FPD) fixed partial denture over teeth or dental implants.

I will focus this presentation on conventional removable total dentures by making the modifications directly on the prosthesis that the patient is using and consist of:

- Determine the basal area, i.e., achieving the largest area of support for the base of the new total prosthesis;
- Replace the base portion of the prosthesis in contact with the mucosa to improve the adaptation, stability and treat a possible contamination by fungi that is quite common considering the prolonged use of these prostheses.
- Propose a new vertical dimension of occlusion which, in general, due to the use of prostheses and or-or reabsorption of the alveolar borders, is diminished. Using as parameters the free functional space, the space of pronunciation and the muscular perpetuation;
- Mandibular repositioning achieved through flat occlusal surfaces inducing the patient to a central physiological relationship
- Providing aesthetic changes (size, width, and position of the artificial teeth)
- Providing aesthetic changes (size, width and position of the teeth)
- Determine the basal area, i.e., achieving the largest area of support for the base of the new total prosthesis;
- Replace the base portion of the prosthesis in contact with the mucosa to improve the adaptation, stability and treat a possible contamination by fungi that is quite common considering the prolonged use of these prostheses.
- Propose a new vertical dimension of occlusion which, in general, due to the use of prostheses and or-or reabsorption of the alveolar borders, is diminished. Using as parameters the free functional space, the space of pronunciation and the muscular perpetuation;
- Mandibular repositioning achieved through flat occlusal surfaces inducing the patient to a central physiological relationship
- Providing aesthetic changes (size, width, and position of the artificial teeth)
- Providing aesthetic changes (size, width and position of the teeth)

When all technical and aesthetic goals are reached out and approved by the patient, these prostheses are duplicated (obtaining the clones). These clones are the individual trays. These trays are adjusted to the patient's mouth and the impression is done using condensation silicone (Thixoflex M-Zhermack) with the patient closing the mouth (occluding), and maxillomandibular relationships are guaranteed through a rigid bite registration (with the GC Pattern Resin - GC Dental or Duralay®). These moldings are filled with plaster and mounted in a semi-adjustable articulator.

The artificial teeth are mounted on a rigid test base, and the prostheses are tried for aesthetic approval and confirmation of the reproduction of the functionality of maxillomandibular relationships for the final prosthesis... In the lower arch,

where the mobility of the tongue and the absence of a sufficient alveolar ridge compromise the stability and retention of the prosthesis, I use cheek and tongue impression. The artificial teeth already mounted at the base (neutral zone); however, no wax is added in the buccal and lingual areas. The impression material is placed in these areas (Thixoflex M - Zhermack) and the patient makes movements with the tongue and lips (smiling, swallowing etc.), printing out these muscles in function on these faces of the prosthesis.

Take Away Notes

- In my presentation, I intend to share with the audience the needs for a gradual change in the initial condition of the patient, in order to get to a comfortable neuromuscular functional condition in an oral rehabilitation.
- This approach is quite accepted in the area of occlusion and will certainly be considered by the area of neuromuscular physiotherapy in the approaches of Temporomandibular Joint (TMJ) Dysfunction Syndrome.
- In addition to aiming at neuro-muscular comfort, this approach considers that when the patient who undergoes gradual changes in aesthetics suffers less social embarrassment than one who changes his smile from one day to another.
- With adjustment of the prosthetic bases before doubling them to obtain the individual trays, we achieved fewer adjustments of the final bases, consequently more precision of these and less morbidity to the patient.
- This technique as a whole leads to a predictability of what will be achieved in oral rehabilitation. The greater participation of the patient in the treatment, facing the difficulties in being able to contemplate the aesthetic and functional pretensions, leads to the greater success of prosthetic rehabilitation. It is good to point out that when using this technique, the time frame for the treatment is always longer, but in general, the time of adaptation and later adjustment is quite shorter.

Biography

Newton went to the University of Marilia in 1982 where he majored in dentistry he is an honor graduate in implant dentistry of the University Brasil he is also a specialist and he holds a master degree in the dental prosthesis of São Leopoldo Mandic University he served as a professor at the University Brasil for over 28 years, being in charge of removable total prosthesis subject matter, and currently, he is also a coordinate professor of the specialization course in implantology. Newton has been a member of ITI International Team for Implantology since 1996 Continually upgrading his office with the most recent innovations, he holds advanced training in complex surgery for guided bone regeneration Fulfilling people's vision of what they want to when it comes to recovering orofacial function and aesthetics.

The diode laser in modern treatment concepts- Some case reports

Michael Schafer

Dental Office, Germany

According to current evidence, several dental lasers can be used to improve our treatment results. In dental practice a decrease in caries prevalence is obvious whereas patients' motivation of optimizing their aesthetic oral condition increases obviously. Dependent on the loss of tooth substance, different treatment concepts can be applied to improve the oral situation of our patients. With regard to a high-end aesthetic result, the author presents his definition of a modern dentistry using the diode laser. Some case reports illustrate the exemplary use of the diode. The author proposes that the diode is not only for the oral surgery in general but also a good tool to preserve healthy soft tissue architecture. Several advantages are illustrated.

Biography

Education and Qualification

| | | |
|-----------|---|--|
| 1996-2001 | : | Dental school graduate at the Medical Faculty, RWTH Aachen Elite University, Germany |
| 2000-2001 | : | Dissertation Department of Prosthodontics and Dental Materials (Chair: Univ.-Prof. Dr. Dr. Dr. H. Spiekermann) |

Professional Experience

| | | |
|-----------|---|--|
| 2001-2004 | : | Assistant Doctor in a dental office near to Aachen (Focus on Oral Implantology, Laser dentistry) |
| 2004-2005 | : | participating in a joint practice in Düsseldorf with a Focus on periodontology |
| 2006 | : | joining the current dental office in Düsseldorf |
| 2007 | : | acquisition of dental office in Düsseldorf |

Additional Skills and Qualification

| | | |
|----------------|---|---|
| 2001-2003 | : | continuing medical education in Laser Dentistry |
| 2003-2005 | : | postgraduate specialty program in Oral Implantology |
| 2006-2008 | : | postgraduate specialty program in Periodontology |
| 2008-2010 | : | postgraduate specialty program in Esthetic Dentistry |
| 2012-2014 | : | postgraduate specialty program in Prosthetics |
| 2001 until now | : | papers in national and international journals |
| 2008 until now | : | lectures at national and international conferences with clinical main focus on implantology, laser dentistry and esthetic dentistry |

Influence of chelating solutions on adhesive strength of glass fiber pins to root dentin

Eduardo Fernandes Marques*DDS, Carlos Eduardo da Silveira Bueno DDS, PHD
ULBRA, Tocantins, Brasil

The chelators are solutions that feature free radicals at the end of their molecules that bind to calcium ions of the molecular complex which are intertwined, securing them with coordinated union called chelation. Chelation is a chemical physical phenomenon by which certain calcium ions are captured from complexes that are part without constitute a chemical union with the chelating substance, but rather a combination. The aim of this study was to evaluate the influence of the solutions chelators: EDTA, citric acid and teraclean on adhesive strength of pins fiberglass to root dentin. Were selected forty human lower premolars, accessed the channel, odontometry and preparation of the third cervical with Gates-Glidden drills. The specimens were included in acrylic resin, then instrumented with Universal Protaper rotational system and irrigated with 2.5% sodium hypochlorite. Later, the bodies of proof were randomly divided into 4 groups (n:10), using as final irrigation, chelating solutions: G1:17% EDTA, G2: citric acid 10%, G3: Tetraclean and G4: saline solution. The channels were dried, closed and specimens stored for 30 days in distilled water (kept at 36.5° C and 100% relative humidity). The disfilling has been performed to stay 4mm material plug in the apical region. Fiberglass pins, previously selected, were cemented with ED Primer adhesive system and resin cement Panavia F then the samples were stored for 24 hours at 37° C. The specimens were subjected to tensile test (Emic DL2000) with constant speed of 1 mm/min with 2000 Kgf. The results were submitted to Biostat Program 4.0, descriptive analysis and ANOVA test ($p = 0.7428$). There was no statistically significant differences ($p > 0.05$) between the studied grupos. It was concluded that the type of chelation solution used in irrigation end did not influence retention micromechanics of fiberglass.

The chelators are solutions that feature free radicals at the end of their molecules that bind to calcium ions of the molecular complex which are intertwined, securing them with coordinated union called chelation. Chelation is a chemical physical phenomenon by which certain calcium ions are captured from complexes that are part without constitute a chemical union with the chelating substance, but rather a combination. The aim of this study was to evaluate the influence of the solutions chelators: EDTA, citric acid and teraclean on adhesive strength of pins fiberglass to root dentin.

Take Away Notes

- Influence of technique and instrumentation solution in crop resistance of adhesive fiber glass blades root dentin.
- Influence of chelating solutions on adhesive strength of glass fiber pins to root dentin
- Technology
- Through clinical and scientific basis
- Clinical cases
- Identify the theoretical, basic and scientific aspects related to pulmonary biology, pulmonary disease etiology, non-diagnostic auxiliary resources, classification, screening situations, such changes;
 - - since the graphics are used during endodontic treatment.
 - - demonstrate through laboratory practices as techniques that optimize the access and treatment of root canals;
 - - use of resources of semiotic technical resources for endodontics;
 - - Demonstrate the importance of diagnosis through clinical observation of normal and inflamed dental pulp;
 - - Perform clinically as the techniques of handling complaints and periapical.

Three-dimensional endodontic guide for adhesive fiber post removal: A dental technique

Débora Drummond Hauss*, DDS, MSc, PhD., Lucas Moreira Maia, DDS, MSc, PhD., Gil Moreira Júnior, DDS, MSc, PhD., Rodrigo de Castro Albuquerque, DDS, MSc, PhD., Nelson Renato França Alves da Silva, DDS, MSc, PhD
Federal University of Minas Gerais, Brazil

The use of endodontic microscopy is important for adhesive fiber post removal, but this procedure remains risky due to the difficulty in post removal by trimming or ultra-sound insertion without affecting the root structure integrity. Also, the techniques available for fiber post removal require significant operator skill to avoid possible deleterious consequences as these techniques are very precise. This dental technique describes a solution developed from the experience obtained attempting to gain access to calcified conduits using prototyped guides that facilitate localization and direct adhesive post removal through the root canal system. The removal of an adhesive fiber post is an important step for endodontic retreatment and resolution of prosthetic problems. This protocol is performed with a prototyped endodontic guide. Computer-aided design and computer-aided manufacturing (CAD - CAM) technology is used to generate guides with prototyping and is a useful tool for fiber post removal. The combination of intra-oral scanning associated with prototyped endodontic guide is a promising option that is easy to execute and offers a less stressful solution regarding the possibilities of deleterious consequences of the procedure, such as radicular structure reduction, crack propagation, root axis deviation and perforation. This approach is considered important for difficult cases, in which the ordinary known procedures for post removal are not suitable.

Take Away Notes

- Professionals may face the necessity of adhesive post removal due to prosthetic problems or endodontic treatment failure. As a delicate procedure, special attention should be given to the technique and necessary care as it may compromise the dental structure due to the high risk of root perforation, crack propagation, severe deviations from the root axis or even root fracture
- The audience will learn about a new solution for adhesive fiber post removal using a prototyped endodontic guide
- This technique will facilitate the job for less experienced professionals and will permit more assuredness of the fiber post removal in microscopy experienced professionals
- It is a better alternative that provides a practical solution to the problem and simplifies the technique for post removal, improving the efficiency

Biography

Débora Drummond Hauss Monteiro graduated in dentistry in 2009 by Federal University of Minas Gerais (UFMG) in Brazil, post graduated in restorative dentistry (2012) and obtained her MSc degree also from UFMG (2015). She has experience in microbiology research, tooth bleaching and salivary flow, and has presented several scientific studies in Brazil, USA and Singapore conferences. In 2013 her teaching experience began as a volunteer professor in Dentistry Faculty of UFMG. She had developed learning handout for study and practice guide for Laboratory Practice on Metallic Restorations of UFMG (2013). She has published scientific articles on international and national journals. Débora believes combining clinical practice and teaching with the research is the true path for the development of knowledge and nowadays she keeps working in her dental office while works as a dentistry teacher on the Faculty of Administrative Studies (FEAD) and as a researcher on the PhD course that she does in UFMG to seek the answers for the questions that rise in clinical practice. She is a member of International Association for Dental Research (IADR) and Brazilian Society of Dental Research (SBPqO), and has presented several works in their meetings.

Laser activated irrigation

Barbara Škrlić Golob DDS.MSc

Dentalni Studio, Slovenia

Endodontic treatment is a complex procedure. The long-term success of it is influenced by the quality of restoration and the root canal treatment. The latter depends on maximal debridement and disinfection of the entire root canal system, chemomechanical preparation, and three-dimensional obturation of the root canal walls. Due to the complexity of root canal anatomy, approximately one-third of the root canal surface is not accessible for instrumentation. Therefore, modern researchers are focused on discovering appropriate irrigants and improving their applications. The main problem of irrigation is the fluid dynamics of the irrigant in the confined canal space. Because of that, a lot of research lately is focused in use of laser technology for improving decontamination and cleaning of the root canals.

Laser can be used in two ways: (1) directly, by irradiating the dentinal wall (CLE – *conventional laser endodontology*), or (2) *indirectly*, by irradiating/activating photoactive substances (PAD – *photo activated disinfection*) or irrigants (LAIs.l. – *laser activated irrigation s.l.*).

Erbium laser family presents one of the newer technologies in endodontics for activation of irrigants. The basic principle of LAI is producing the bubble that leads in three-dimensional flow of irrigants. According to the fiber/tip position in root canal system the latter is further divided into LAIs.s. and PIPS (photo induced photoacoustic streaming). Compared to other techniques, PIPS is very well defined by protocol of irrigation that includes laser parameters, tips, tip position, and propose the final sequence for irrigants with concentrations, supported by research results.

Take Away Notes

- Basic operation information of laser
- Which laser and why we can use for activation of irrigants
- Protocol for PIPS technology based on research for every day practice that can be used next in their practice

Biography

Barbara Škrlić Golob graduated at University of Ljubljana (Slovenia), Faculty of Medicine, Department of Dentistry, in year 2000. In 2007, she started with private practice. In 2011, she got involved in first Laser Workshop in Aachen where she received a Certificate of LSO and AALZ Dental Laser. One year later, she received PIPS Certificate awarded by professor Giovanni Olivi from Rome. In 2016, she got MSc degree in Laser dentistry in University of Genova and in 2017 she finished another MSc degree at the University of Torino, Master in Clinical and Surgical Microendodontics, under supervision by professor Elio Berutti.

Prevention of endodontic instrument fractures

Israa Awad Bahaa Al Deen Al Aubi

Ajman University, UAE

Of all the complications that might occur while you are doing an endodontic procedure, one of the very worst is instrumentation breakage—in other words, “file separation” in the canal. Throughout my more than twenty years of practice, breaking an instrument in the canal has always been a major challenge for anyone doing endodontics. Recently, with the advent of rotary NiTi instruments, the manufacturers of these instruments seem to want us to believe that breakage is not such a problem anymore. Unfortunately, that is not the reality of the situation. Breakage is a problem, it remains a problem, and with the advent of NiTi instruments it is becoming an even larger problem

During any endodontic treatment there is a big possibility of fracture of endodontic instruments during the instrumentation phase of the treatment that might complicate the whole treatment later on. Some fractures can be removed from the canals with a great difficulty, other fractures cannot be removed from the canals which might compromise the final success of our treatment or complicate the treatment from simple endodontic treatment into periapical surgery than sometimes cannot be done because of close association with certain anatomical landmarks. Therefore, in this lecture, I will discuss the causes behind this mishap and the means by which we can prevent the fracture of endodontic instrument.

Biography

Academic Rank:

Lecturer

Degrees:

M.Sc. Endodontics, University of Baghdad, Iraq, 2000

B.D.S., University of Baghdad, Iraq, 1993

Three-dimensional analysis of maxillary molars after intrusive forces: Randomized clinical trial

Carollyne M. Tiago*, Ph.D Orthodontics, Angela M Silva, MSc Orthodontics, Marcelo R. Moreira, Orthodontics, Paulo R. A. Nouer, Ph.D Orthodontics

Sao Leopoldo Mandic – Brazil, FACIT- Brazil

Although it has been shown that mini-implants allow intrusive mechanics on maxillary molars, there is still a scarcity of studies in the literature about the clinical evidence of the effect of this treatment mechanics, as well as, concerning the ideal intensity of force for this movement. A randomized clinical trial was conducted and this presentation will answer the following questions: What is the amount of molar intrusion? Is this a true and pure molar intrusion? What is the relationship between time for intrusion and the intensity intrusive force?

Take Away Notes

- Is this a true and pure molar intrusion actually achieved? If not, what are the coronary effects?
- If yes, what is the amount of molar intrusion?
- Which force intensity acts more rapidly for intrusion of the maxillary molars
- To propose the indicated force for this orthodontic mechanic

Biography

Dr. Carollyne Tiago completed her dental education at Unievangélica, Brazil; She received a PhD in Orthodontics from São Leopoldo Mandic, Campinas, SP, Brazil. She is currently a professor and Head of the Department of Orthodontics and she works in the management of the Faculty of Sciences of Tocantins – FACIT, in Araguaina, Brazil.

Pedicle tongue flap and temporal flap as an option for buconasal fistula closure

Nascimento Tuanny Carvalho de Lima do* (DDS, Eo); Strujak, Guilherme (DDS, MSc); Biron, Cassia (DDS, Eo); Romanowski, Maurício (DDS, Eo); Scariot, Rafaela (DDS, MSc, PhD, PostDoc); Carlini, João Luiz (MSc, PhD)
Universidade Positivo, Brazil

Maxillary defects with buconasal/businusal communications are situations difficult to manage and solve. Several treatment options are available on the literature, each one with its indication. Pedicle tongue flap and temporal muscle flap is one of these options, being a technique that requires more experience of the surgeon to be properly performed and that is mainly indicated for difficult cases, large defects and those nonresponsive to simpler techniques. The main purpose of this presentation is to report clinical patients of the application of the pedicle tongue flap and temporal muscle flap for the closure of extensive oral defects.

Biography

Graduated in Dentistry from Universidade Positivo, Curitiba, Paraná, Brazil. Residency in Oral and Maxillofacial Surgery at the Erasto Gaertner Hospital and São José dos Pinhais Hospital and Maternity. Enablement in conscious sedation with nitrous oxide by the Brazilian Association of Inhalational Analgesia and Conscious Sedation (ABASCO). Enabled in Orofacial Harmonization. Master's degree in Dentistry from Universidade Positivo. Volunteer work at CAIF-AFISSUR (Cleft Lip and Palate Integral Care Center) for six years. Performed advanced surgery course in Miami-USA and PHTLS (Prehospital Trauma Life Support). She is a professor in Implant Dentistry, Stomatology and Anatomy Professor in Experience in Orofacial Harmonization Experience. She published national and international articles in Surgery and Pathology.

The management of ankylotic root resorption following dental trauma: A treatment protocol

Shaul Lin^{*}, DMD^{1,3}, Malka Ashkenazi, DMD², Munir Karawani, DMD¹, Sorin T. Teich, DMD, MBA⁴, Zvi Gutmacher, DMD⁵

¹Endodontics and Dental Trauma Department, School of Graduate Dentistry, Rambam Medical Center, Haifa, Israel.,

²Private Practice, Petah-Tikva, Israel, ³School of Medicine at the Technion, Haifa, Israel., ⁴Case Western Reserve University School of Dental Medicine, Cleveland, OH, USA, ⁵Maxillofacial Rehabilitation Department and TMD Unit, School of Graduate Dentistry, Rambam Medical Center, Haifa, Israel

Purpose: Ankylotic root resorption is a serious complication following traumatic dental injuries. The etiology of root resorption includes acute injury to the cementum and periodontal ligament, and subsequent biological processes that propagate the harm. The aim of the present paper is to present a structured treatment protocol for teeth that have experienced trauma and are at risk of developing ankylotic root resorption, followed by a decoronation protocol for situations in which ankylotic root resorption developed.

Materials and methods: This protocol provides a structured road map from the primary dental trauma, through the initial development of ankylosis detected radiographically, until the clinical manifestation that results in significant infra-occlusion. The current protocol integrates best available evidence from the literature and from published guidelines.

Results: Ample contradictory data, which mainly consists of case reports related to the treatment of ankylotic root resorption, is available in the current literature. There is no accepted protocol or uniform guidelines for treatment in these cases and many clinicians prefer avoiding replantation of an avulsed tooth that seems to have guarded long-term prognosis, or performing decoronation when infraocclusion developed. As a result, young patients lose the benefits associated with replantation and decoronation procedures.

Conclusions: The option of re-implantation of the avulsed teeth should be considered irrespective of the negative long-term prognosis. Following ankylosis development, the goal of submerging the tooth root (decoronation) is to maintain the horizontal dimension of the alveolar ridge and also to gain vertical dimension, allowing implant placement in the future.

Biography

Chairman, Endodontics and Dental Trauma Department
School of Graduate Dentistry.
Director of Post-Graduate Program in Endodontics
Rambam Health Care Campus
Technion, Faculty of Medicine Haifa, Israel.

Maxillofacial prosthetic rehabilitation experience in Nepal

Shyam K. Maharjan, BDS, MDS, FICCDE

People's Dental College and Hospital, Nepal

Maxillofacial Prosthetic Rehabilitation is the emerging field in Dentistry. Prosthodontic rehabilitation of patient with maxillofacial defects depend on extend of the defect after resection. Rehabilitation of such patient is challenging in our context because of patient awareness, availability of materials and good technical skill. The prime concern during rehabilitation of patient with maxillofacial defects is to have Prosthesis with functional, esthetical, and psychological acceptance. Retention, support, and masticatory efficiency of the prosthesis are few criteria to be fulfilled but difficult to achieve according to clinical variations. Good co-ordination with maxillofacial surgery team will help to maintain quality of work to improve the quality of life. Prosthodontic can assist the surgeon at the time of surgery to improve the prosthodontic prognosis of definite prosthesis.

This presentation will highlights some experiences during treatment planning, assisting the surgical procedure and prosthetic rehabilitation of maxillofacial defect patient in limited resources in Nepalese context

Take Away Notes

- Clinician will be able to handle the different cases of Maxillofacial Prosthetic Rehabilitation patient.
- Clinician will be able to co-ordination with maxillofacial surgery team during treatment planning.
- Clinician will be able to identify the different problem of maxillofacial defect patient.
- Clinician will be able to deliver different types maxillofacial prosthesis to the patient.
- Clinician will be able to rehabilitate the patient with quality of work to improve the quality of life.

Biography

Dr. Shyam Kaji Maharjan has completed BDS in 2006 and MDS in Prosthodontic and Maxillofacial Prosthesis in 2013 from People's Dental College and Hospital, Tribhuvan University. He has also received Fellowship from International College of Continuing Dental Education (FICCDE) Singapore. Currently he is working as an assistant professor in Department of Prosthodontic and Maxillofacial Prosthesis, People's Dental College and Hospital and also has responsibility of a Clinical coordinator for the undergraduate program. He has experiences of national and international presentation. He is associated as editor of Journal of Nepal Dental Association and Journal of Nepalese Prosthodontic Society.

Bactericidal effect of Photodynamic Therapy (PDT) in oral infections

Ana Maria de Gois, Ph.D.

Instituto de Física de São Carlos - USP, Brazil

Photodynamic Therapy (PDT) is a treatment that employs the combination of chemical photosensitizers and visible light inducing cell death. The visible light activates a photosensitizing drug accumulated in a tumor or cell. This photosensitive substance when lit by laser or LED of specific color and excited provokes a chemical reaction with molecular oxygen, producing the singlet oxygen which is highly cytotoxic inducing cell death. Among the most common photosensitizers there are the porphyrins which are used in PDT for cancer treatments and also against viruses and bacteria. Many pigments have antibacterial effect, however said effect is only amplified under light irradiation. Research and practical use have been overlooked due to the easy access and use of antibiotics. However, when facing the ever-growing bacterial resistance to antibiotics the use of photodynamic therapy may represent a good choice for the potential treatment of infected lesions. For curative application, photodynamic therapy has been used mainly against cancer as an alternative to chemotherapy and radiotherapy, for treatments of cancer in beginning stages and it also aids in treating advanced lesions improving the immune resistance of the host, especially when we consider its non-toxic effect on healthy tissue. Other medical indications to PDT include dermatology, ophthalmology, cardiology, gastroenterology and the elimination of microorganisms in local infections that occur in the oral cavity where photodynamic therapy in addition to microbial control acts on the modulation of the intensity of the inflammatory reaction. PDT allows treating oral lesions such as periodontal lesions without the use of antibiotics and prevent the occurrence dental caries.

Encouragement from other faculties is of vital importance since teachers and students would have a more selective option in treating oral infections such as in the periodontal field and in treating oral cancer besides other fields of medicine where despite enormous advancements in PDT research there is still a lot to be discovered such as doses adjustment, best photosensitizing substances and parameters for treatment of advanced stages of cancer such as metastasis.

Biography

In 2006 I had the opportunity of taking a PhD at Universidade de São Paulo (USP/SC), UFPB and UFBA, said PhD was in Dentistry in which I've had as area of concentration laser in odontology

In 2004 I got a Master's degree in Restorative Dentistry at UNESP/FOAR.

I also hold the title of Specialist in Restorative Dentistry by ABO (Brazilian Society of Odontology).

I've had the chance to work as a Professor at UFS/SE (Brazil) of the Restorative dentistry discipline.

I've worked as a Researcher of Laser Dentistry at the Physics Institute of São Carlos, University of São Paulo (USP). Brazil.

Still in the line of teaching I've worked as the implementation coordinator of UNIRB-SERIGY-SE (Brazil)

Conservative approach to cysts and maxillary tumors

George Borja de Freitas*, Ph.D. Luiz Roberto Coutinho Manhães Júnior; Ph.D. Riedel Frota Sá Nogueira Neves
Brazilian Association of Dentistry and Integrated Colleges of Patos(FIP), Brazil

Initially we will discuss the classifications of cysts and tumors of the jaws and their respective indications of treatment, we will talk about the possibilities of treatment of cysts and tumors of the jaws such as Marsupialization, decompression, enucleation, curettage, resections and applications accessory medications. Posteriorly, in the Presentation we will discuss conservative therapeutic possibilities for treatment and conduction of complex cases of cysts and tumors of the jaws. We have a series of clinical cases, with all clinical and radiographic preservation and possibilities of conservative therapeutic approaches. Conservative treatments aim primarily at complete resolution of cases with minimal trauma and attenuation of the chances of mutilation of these patients, primarily when these pathologies affect young patients. In this way, we will present at the congress a series of cases of cysts and tumors of the jaws in which we opt for more conservative approaches.

Take Away Notes

- The public may use the knowledge of possibilities of conservative approaches in the treatment of maxillary cysts and tumors, minimizing mutilations and sequelae in their patients and promoting good therapeutic resolution of the cases.
- The treatment of maxillary cysts and tumors has always been the subject of much scientific research, however, lately we have sought to offer more conservative treatments in order to minimize sequelae and mutilation in our patients. We will present the approaches from a number of clinical cases that will help the present public to think of conservative treatment possibilities in the approaches of cysts and tumors. Our research brings a series of information and current therapeutic possibilities that seek to offer a treatment of excellence with the minimum of trauma and sequelae to our patients. Because aggressive treatments with large resections leave functional, aesthetic and psychological sequelae in these patients. In this way, whenever possible we should opt for conservative therapeutic approaches.

Biography

Post-graduation in Oral and Maxillofacial Surgery (HMAR-PE), Post-graduation in Implantology (ABO-PE), Specialization in Stomatology (SLM-SP), MSc. Radiology (SLM-SP) and DDS. Ph.D Implantology (SLM-SP). He is currently teacher Oral and Maxillofacial Surgery of the Brazilian Association of Dentistry (ABO-PE), teacher of the Undergraduate Program in Surgery and Stomatology (FIP-PB) and Postgraduate Course in Oral Surgery of the Integrated Colleges of Patos (FIP-PB) and Guest Professor of Surgery at the Federal University of Campina Grande (UFCG). Has experience in Dentistry, with emphasis in Stomatology, Oral Maxillofacial Surgery, Radiology and Implantodontics.

The stimulation of mandibular forward development during the treatment of skeletal Class II malocclusion

Mohamed Youssef*, Dr. PhD. A.A., Al-Dumaini

Damascus University, Syria, and Yemen

The Class II malocclusion is one of the most common problems in orthodontics. The achievement of its esthetic and functional optimum requires correcting of the Distal-bite. However, several studies have stated that a Class II skeletal pattern is caused by a mandibular deficiency or due to Retro-gnathic mandibular position. Treatment of mandibular deficiency can be achieved by growth modification through stimulation of mandibular growth and inhibition of maxillary growth. For this purpose, appliances such as extra oral headgears and removable or fixed functional appliances have been used, to stimulate mandibular advancement.

Evidence on the efficiency of removable functional appliances is controversial. Some researchers have reported favorable treatment effects on mandibular growth, either as an increase in mandibular length or as effective condylar growth. Others found that these appliances have no significant effect on the mandible.

The 1st technique was invented and patented by Mohamed Youssef and Abdulsalam Al-Dumaini and registered as a patented technique at the WIPO in 2011 under number WO/2011/159261 and named "The INTERMAXILLARY LIP BUMPER (IMLB)"

The skeletal and Denton-alveolar changes during the treatment Cl. II- malocclusion, using the INTERMAXILLARY LIP BUMPER were evaluated in a preliminary study. And the results showed that the "INTERMAXILLARY LIP BUMPER" can lead to improvement in the mandibular position –and rotation, jaw relationship, facial growth type, and facial profile in addition to correction of the Molar relationship and Incisor axis.

The 2nd technique was invented and patented by Mohamed Youssef and Abdulsalam Al-Dumaini and registered at the WIPO in 2012 under number WO2012096633 (CORRECTION OF JAW RELATION BY SKELETAL ANCHORAGE MINIPLATES)

The effect of this technique for the treatment of skeletal Class II malocclusion with mandibular deficiency in growing subjects was evaluated in a prospective clinical trial. And the results revealed that, Bimaxillary miniplates-based skeletal anchorage promotes the correction of skeletal Class II malocclusion through skeletal changes mainly, by improving the maxillomandibular relationship due to the increase in mandibular ramal and body lengths and counterclockwise mandibular rotation, effective length reduction and posterior repositioning of the maxilla.

Biography

Dr. Mohamed Youssef is a Professor of Orthodontics and Dentofacial Orthopedics at the Damascus University, Damascus, Syria, he held his Ph.D. (Dr. med.) title in the University of Rostock, Department of Orthodontics, Germany in 1988 and the Certificate " Specialist in Orthodontics (Fachzahnarzt für Kieferorthopädie) from the German Academe for Postgraduate Study in 1988. He worked as Dean of the Faculties of Dentistry at- the University of Damascus (2007- 2011),-the Syrian Private University (2005-2006), -the Al Hawash Private University (2013- 2015) and- the Wadi International University (2016- 2017) in Syria. He has more than 25 publications as main Author and 36 publications

Co-Author in the Arabic,- English and – German Languages. He has registered two Patents at the World Intellectual Property Organization (WIPO): -the " CORRECTION OF JAW RELATION BY SKELETAL ANCHORAGE MINIPLATES" in 2012 under number WO2012096633 and – the "INTERMAXILLARY LIP BUMPER" in 2011 under number wo/2011/159261.

He Supervised 10 Doctoral Dissertations and 22 Master's theses.

His main interesting research specialty is the facial growth type and its relationship to the malocclusion and to orthodontic treatment.

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3rd Edition of International Conference on

Dentistry and Oral Health

September 16-18, 2019 London, UK



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