

International Conference on

**DENTISTRY &
AND ORAL HEALTH**

2017
SEP SEP
14 TO 16

**ICD
2017**

Exhibitor



Venue
Eurostars Rey Don Jaime
Av. de les Balears, 2, 46023
Valencia, Spain

ICD 2017

Index

| | |
|---------------------------|-----|
| Welcome Message | 4-5 |
| Keynote Speakers | 6 |
| About Exhibitor | 7 |
| About the Host | 8 |
| Key Note Sessions (Day 1) | 9 |
| Speaker Sessions (Day 1) | 15 |
| Key Note Sessions (Day 2) | 35 |
| Speaker Sessions (Day 2) | 41 |
| Poster Presentations | 65 |
| Speaker Sessions (Day 3) | 89 |
| About ICD 2018 | 110 |

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 ICD 2017. On behalf of the Organizing Committee I would like to welcome you to the lovely City of Valencia 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

*Barts and the London School of Medicine and Dentistry QMUL
London, UK*

ICD 2017

Welcome Message



As a child there was one story my grand parents told me which stuck in my head throughout my childhood and well into my dental career, and that was the story of the Tooth Worm!

The theory of 'Tooth Worms' first appeared in Sumerian text around 5,000 BC, and references to it were later found in dentistry texts in China, Egypt, and India long before it finally took 'roots' in Western European dentistry in the 8th Century.

The idea that a tooth-worm causes decay may be an absurd theory to us today, but for those who were in charge of healing teeth it was a valid theory (further cemented by mistaking the pulp root for worms). Incidentally, the treatment was partially successful as it involved 'smoking' the worm out with burnt beeswax and henbane and then filling the cavity with henbane seed and gum mastic (which acted as an analgesic).

But what's really surprising about this story is that it wasn't until later in the 20th century that the theory was debunked, thanks largely to Pierre Fauchard, and later W.D. Miller.

It's curious how such a theory became a fact, and made its way around the globe, and outlived many centuries, cultures and generations.

Stories like these make one realise the importance of academic gatherings such as the ICD: bringing together clinicians and academics from all disciplines and all corners of the globe to provoke hypotheses and probe for new research and development.

I'm honoured to be on the organising committee of the ICD and on behalf of the organizers I welcome you to the 2017 ICD in Spain and look forward to meeting all of you - attendees, presenters, the organising committee and distinguished guests – and embarking on this educational 3-days in the beautiful city of Valencia.... And who knows, together we may even debunk a few 'tooth worm' theories of our own.

A handwritten signature in black ink, appearing to read 'Mehdi Rahimi', with a horizontal line extending to the right.

Dr Mehdi Rahimi

Specialist Endodontist – Principal Endodontist at Gentle Endodontics Sydney, Australia

Guest Lecturer at Sydney, Melbourne and Charles Sturt Universities.

Secretary/Treasurer of the Australian Society of Endodontology.

Immediate past-president of the Australian Asian Association of Dentists

Keynote Speakers



John C Comisi
University of Rochester
USA



Salvatore Sauro
CEU Cardinal Herrera
University, Spain



David Gillam
Queen Mary University of
London, UK



Mehdi Rahimi
Gentle Endodontics
Australia



Vicente Faus Matoses
Universidad de Valencia
Spain



Peter Foltyn
St Vincents Hospital
Australia



Nelio Jorge Veiga
Catholic University of
Portugal, Portugal



Peter Reinhard Pospiech
Charite University
Germany

About Exhibitor

PULPDENT®

Dental Innovation Since 1947

About PULPDENT® Corporation

PULPDENT® Corporation is a family-owned dental research, manufacturing company and leader in bioactive dental materials. ACTIVA BioACTIVE™, developed by PULPDENT, is the first esthetic bioactive restorative material. ACTIVA behaves much like natural teeth and stimulates the formation of apatite (the building blocks of teeth), chemically bonds to teeth and helps protect against decay. PULPDENT celebrates its 70th anniversary this year with continued commitment to product innovation, clinical education and patient-centered care. To stay updated on bioactivity and learn about the Heroic Dentistry Series, which demonstrates ACTIVA's unprecedented capabilities, visit pulpdent.com/blog.

ICD 2017

About Magnus Group



Magnus Group (MG) is initiated to meet a need or to pursue collective goals of scientific community, especially in exchanging the ideas which facilitates growth of research and development. We specialize in organizing conferences, meetings and workshops internationally to overcome the problem of good and direct communication between scientists, researchers working in same fields or in interdisciplinary research.

MG promotes open discussions and free exchange of ideas at the research frontiers mainly focusing on science field. Intense discussions and examination based on professional interests will be an added advantage for the scientists and helps them learn most advance aspects of their field.

It proves that these events provide a way for valuable means of disseminating information and ideas that cannot be achieved by usual channels of communications. To encourage an informal community atmosphere usually we select conference venues which are chosen partly for their scenic and often isolated nature. Suggestion from many scientists and their reviews on our conferences reflected us to continue organizing annual conferences globally.

About ICD 2017

ICD 2017 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.

This conference provides a forum for the exchange of information about new and significant research in the field of dentistry and oral health, with the intention of continually expanding the knowledge base in the field. ICD 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.



DAY 1

Keynote Forum

International Conference on

Dentistry
and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

International Conference on **Dentistry & Oral Health**

**September 14-16, 2017
Valencia, Spain**

Hybridization vs. Biomineralization: An evolution for dental restorations

John C Comisi, DDS, MAGD

University of Rochester, USA



In the early 1980's the dentin hybridization model was proposed. It was described as a bioengineered tissue integration of resin into the living dentin of the tooth. Over the following years there have been generations of dentin hybridization adhesives created to attempt to overcome the shortcomings of the previous generations or to attempt to make the process easier for clinical application. However, it has been determined that the average life span of a typical resin bonded composite restorations is 5.7 years at a cost of approximately five billion dollars annually in the United States alone. Various agents have been proposed and subsequently used in an attempt to create more long lasting hybrid bonds. However, it has been stated that the use of these agents applied either separately or mixed with the primer/adhesive agents appear to only retard rather than prevent bond degradation. It is obvious that a different pathway needs to be traveled and it is proposed that the use of bioactive/biomineralization integrating materials could be the direction to success.

Takeaway Notes

- Discuss the challenges being encountered with dental bonding systems
- Discuss the current definition of bioactivity and biomineralization and how these definitions may need to evolve.
- Learn if restorative crystal interface formation is equivalent to biomineralization.
- Learn if true remineralize of demineralized dentin structure can be accomplished.

Biography

Dr. Comisi has been in private practice in Ithaca, NY since 1983, and is President and CEO of Dental Care with a Difference®, PC, where "Knowledge Brings Health"®, and is a Clinical Instructor in Dentistry at the University of Rochester School of Medicine and Dentistry.

He is a graduate of Northwestern University Dental School and received his Bachelor of Science in Biology at Fordham University. Dr. Comisi is a Master of the Academy of General Dentistry, and holds Fellowships in the Academy of Dentistry International, the American College of Dentists, the Pierre Fauchard Academy and the International College of Dentists.

Dr. Comisi is a member of the National Dental Practice Based Research Network (NDPBRN), the International and American Association of Dental Research. He also serves as a Scientific Advisory Board member of the Dental Biomaterials Science and Research Group and a member of the Scientific Advisory Board of Izun Oral Care.

Bioremineralising adhesives for long-lasting restorations

Salvatore Sauro

CEU Cardinal Herrera University, Spain



The learning objective: Degradation of the hybrid layer causes decreased durability of resin-dentine bonds, and continued destruction of tooth structure. It will be shown how innovative approaches to remineralisation of the resin-dentine interface may protect hybrid layers from degradation over time and contribute to improvements in the durability of resin-dentine bonds.

Dental adhesive systems have improved considerably over the last ten years, although shortcomings such as post-operative sensitivity, premature bond reduction, interface and marginal degradation, and biocompatibility are still considered important issues with such materials. Enzymatic degradation of collagen fibrils within the hybrid layer and hydrolysis of polymers are the major factors thought to destabilise the resin-dentine interface. However, “smart” resin-based materials that can interact therapeutically with dental hard tissues and reduce the degradation of the resin-dentine interface via remineralisation of the mineral-depleted dental hard tissues can improve the durability of resin-dentine bonds. Innovative approaches to remineralise the resin-dentine interface may protect hybrid layers from different types of degradations over time, and have a therapeutic role in caries prevention. Experimental adhesive systems containing ion-releasing fillers with advanced remineralising properties and matrix metallo-proteinases (MMP) inhibitors have been developed and used in combination with resin primers containing Ca-sequestering polyanion acids poly(aspartic acid) (PASA) or poly(acrylic acid) (PAA) and biomimetic analogues of collagen phosphoproteins such as sodium trimetaphosphate to remineralise resin-dentine interfaces. This biomimetic approach is able to evoke a “bottom-up” remineralisation that restores the original stiffness (i.e. Young’s Modulus) of water-rich/resin-poor dentine-bonded interfaces. It will be interesting to consider the commercialisation of resin-based materials such as flowable composites and “smart” adhesive systems containing biomimetic reagents that can remineralise and prevent degradation of resin-dentine bonds to enhance their clinical longevity.

Currently there is no existing restorative material able to remineralise hybrid layers and completely restore the modulus of elasticity of mineral-depleted dental collagen structures within resin-bonded interfaces through biomimetic apatite formation at intra-fibrillar and extra-fibrillar collagen level. Hence, the first important concept to consider is that the restorative materials and techniques currently available are not able to immediately remineralise and protect demineralised collagen fibrils present within remaining caries-affected dentine, as well as those within poorly resin-infiltrated water-filled hybrid layers. In such circumstances, collagen will quickly degrade if not properly protected through the application of anti-MMPs agents. However, a clinician may create therapeutic restorations that can induce mineral precipitation within resin-dentine interfaces and possibly prevent the re-occurrence of secondary carious lesions. Reliable remineralisation of completely demineralised collagen fibrils should be characterised by intra-fibrillar [3, 5, 6] and extra-fibrillar mineral deposition with hydroxyapatite crystals orientated in the same direction as those in sound dentine [6, 159]. Innovative bioactive/biomimetic strategies that lead to remineralisation of hybrid layers have been demonstrated to be able to restore the modulus of elasticity of mineral-depleted dental collagen structures within bonding interfaces [5] to normal values [6]. Thus, it is time for academic dental research and dental industry to cooperate more fully in the development of materials with enhanced clinical longevity that can easily be used in dental practice, rather than attempting to improve the formulation of “passive” adhesive systems that can increase the risk for toxicological effects induced by elution of components contained in the light-curable resin-based materials.

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Dr. Salvatore Sauro is currently professor responsible for Biomaterials and Minimally Invasive Dentistry (bilingual line) at the University CEU Cardenal Herrera. Until 2013 he worked as a research associate at the prestigious University King's College London (KCLDI) in the Department of Biomaterials, Biomimetics and biophotonics. Dr. Salvatore Sauro has an experience of 15 years in research on dental, preventive and biomaterials accession. He has published more than 60 scientific papers in international journals of impact, it has published two patents 1 International and other Brazilian.

All publications where he is the author are the result of collaborations with prestigious professors in the field of research as: David Pashley and Franklin Tay (Medical College of Georgia, Augusta, USA); Manuel Toledano (University of Granada, Spain); Ricardo Carvalho M (University of British Columbia, Vancouver, Canada) and Yining Wang Tao Jianga (University of Wuhan, China); Breschi Lorenzo (University of Bologna, Italy). It also collaborates with other researchers most of them based in Brazil where he developed much of its current scientific activity.

Clinical management of dentine hypersensitivity: An update

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

Queen Mary University of London, UK



The aim of this presentation is to update clinicians on the issues and challenges associated with the clinical management of dentine hypersensitivity (DH) and to provide simple guidelines based on presenting clinical features that may help them successfully manage the condition in their day-to-day clinical practice. Details on the management of DH have been previously published in Dental Update which indicated that there was a need for such guidelines. The authors of these guidelines also suggested that, despite the various published clinical studies, there does not currently appear to be one ideal desensitizing agent that can be recommended for treating DH. A joint working relationship between the clinician and the patient in changing the patient's behaviour is therefore essential if the condition is to be successfully treated.

Clinical Relevance: Dentine hypersensitivity is a persistent and a troublesome clinical condition which at times is under diagnosed by clinicians who may struggle to resolve the problem to their patients' satisfaction successfully. The recent UK Forum guidelines on the management of DH, based on the presenting features of the condition, provide practical recommendations, helping clinicians to manage this persistent problem correctly. The presentation may also be of benefit to scientists from both Academia and Industry who may be interested in the topic.

Takeaway Notes

- To update the GDP on the aetiological causes and pre-disposing factors associated with Dentine Hypersensitivity (DH)
- To recognise and treat this persistent problem correctly
- Gain awareness of how the condition impacts on the Quality of Life (QoL) of your patients
- Be aware of new options for the management of DH and consider implementing a management strategy based on the presenting features in clinical practice
- 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.

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Hindsight 20/20 vision – when not to do endodontics?

Mehdi Rahimi, BSc, BDS (Otago), DCD (Endo)(Melb), MRACDS

Gentle Endodontics, Australia



Diagnosis, prognosis assessment and inappropriate treatment planning are three of the most challenging aspects of endodontics: the clinician must predict success. Hence in today's world, litigation also becomes an important issue in dentistry.

When a crack is suspected or is detected prior to endodontic therapy, extraction should also be considered and it is critical to obtain informed consent. At times when we come up with the best treatment option for the patient, we may fall into many grey areas and treatment dilemmas, which can make the scenario more difficult.

After this presentation, you may never look at pending endodontic treatment the same way again.

Takeaway Notes

- Describe the variables that exist that lead the clinician to suspect a cracked tooth.
- Discuss the various long-term healing possibilities from a tooth that may have a crack.
- Predict what may happen when a compromised tooth is endodontically treated and restored back into the arch.
- Understand how various materials such as zirconia restorations can affect prognosis of endodontically treated teeth.
- Understand how we can minimize risk of tooth fractures following endodontic treatment.

Biography

Mehdi graduated with a Bachelor in Dental Surgery with distinction from the University of Otago in 2002 and received his Doctorate of Clinical Dentistry (Endo) degree from the University of Melbourne in 2008. Mehdi is involved in Endodontic teaching both nationally and internationally, as well as guest lecturing at Sydney, Melbourne (post graduate endodontic program) and Charles Sturt Universities. Mehdi has obtained a number of publications in the field of forensic dentistry and Endodontics and was awarded the Sir Allan Wilkinson award for the most worthwhile research in Medicine and Dentistry as well as the International Association for Dental Research: Young Researchers Award (2001). Mehdi was also given the undergraduate award of merit from the Pierre Fauchard Academy. Mehdi is currently the president of the Australian Asian Association of Dentists, the secretary/treasurer of the Australian Society of Endodontology(NSW) and a Member of the Royal Australian College of Dental Surgeons in Endodontics. He is the owner of Gentle Endodontics in Chatswood, Double Bay and Parramatta. Mehdi is also a reviewer for the Australian Endodontic Journal, and has published several articles in peer-reviewed scientific journals.

DAY 1

Speakers

International Conference on

Dentistry and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

Sessions on: Advances in Dentistry | Dental Materials | Endodontics

Session Chairs

Salvatore Sauro

CEU Cardinal Herrera University
Spain

Mehdi Rahimi

Gentle Endodontics
Australia

Session Introduction

Title: New alloys in rotary and reciprocating instrumentation

Jorge Rubio, Catholic University of Valencia, Spain

Title: Nickel titanium instruments after clinical use

Jeffrey M. Coil, University of British Columbia, Canada

Title: Prosthodontic rehabilitation in elderlies with dysphagia by means of piezography

Susumu Nisizaki, University of Uruguay, Uruguay

Title: Co-designing an effective undergraduate course for the appropriate management of medical emergencies in dental practice

Felicity Croker, James Cook University, Australia

Title: Lasers in endodontic treatments

Jaana Sippus, Laseredu Ltd, Finland

Title: Endodontics vs. implantology

Markus Lietzau, Dentalspace, Germany

Title: Epidemiology of malocclusion in adult patients

Alina Noelia Pelaez, National University of the Northeast, Argentina

Title: Monitoring plaque through caregivers using the community Plate Index (CPI)

Jairo Corchuelo Ojeda, University of the Valley, Colombia

Title: Evidence of the multifactorial etiology with influence of social determinants (sense of coherence) on the dental caries experience

Carolina Freitas Lage, Universidade Vale do Rio Verde, Brazil

Title: An innovative way for direct reinforcement of endodontically treated teeth

Ali A. Razooki Al-Shekhli, Fujairah Campus, UAE

Title: Future trends in orthodontic diagnostics: Role of radiographic and biochemical markers

Mohita Sinha, Maulana Azad Institute of Dental Sciences, India

Title: Avoiding legal claims in endodontics

Reema Alghaithy, King Fahd Hospital, Saudi Arabia

Title: Use of CAD/CAM and 3D printing technology for the fabrication of Co/Cr denture frames

Andreas Chatzipantelis, Cardiff University Dental Hospital, United Kingdom

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

Cristiane Lopes Miguel, Fernando Pessoa University, Portugal

Title: The modification of the environment as a key to success in bone regenerative therapy

Alessandro Leonida, Milano-Bicocca University, Italy

New alloys in rotary and reciprocating instrumentation

Jorge Rubio, DDS, MsC.
Catholic University of Valencia, Spain

The main purpose of endodontic treatment is to remove and prevent infection of the root canal system through good endodontic preparation and three-dimensional obturation of the canals. The root canal instrumentation needs to preserve the existing root anatomy, the position of the apical foramen and the original curvature. One of the greatest advances of the 1980s in the field of root canal preparation was the development of the NiTi alloy for endodontic instruments. Rotary NiTi instruments were introduced to improve root canal preparation because they deliver simpler and faster shaping. In recent years, new manufacturing processes and alloys have been developed by improving conventional NiTi, such as CM-Wire and Gold-Wire. Another improvement has been the reciprocating motion, which is an oscillating motion by rotating the files in one direction and reversing their motion before making a complete rotation. The useful life of instruments can be increased with reciprocating motion with better resistance to cyclic fatigue than continuous rotation. The traction and compression strengths on instruments have been suggested as a disadvantage in different investigations, which occur in instruments with continuous rotation. Is there an ideal instrument?

Takeaway Notes:

- The public will be able to use the knowledge learned to select the appropriate instrumentation system for each case.
- The audience will be able to minimize the risk of fracture of endodontic instruments and be predictable the in root canal treatments.
- This presentation will help to professor to expand teaching.
- It will offer to designer's suggestions to improve instrumentation systems.
- It will provide information to assist in the design problems of some endodontic systems.

Biography

Jorge Rubio is Associate Professor of the Master in Endodontics and Restorative Dentistry of the Catholic University of Valencia. He studied Dentistry at the Catholic University of Valencia and realized the Master's Degree in Endodontics and Restorative Dentistry at the same University. Currently, he is doing his Doctorate at UCV on rotating and reciprocating instrumentation. Also, he is part of the Organizing Committee of the AEDE Inicia 2017.

He has published articles at national and international level. In 2015, he obtained the Francisco Garzón Scholarship from the Center of Dentistry-Stomatology Studies of Valencia, the UBK-ANEO Scholarship of investigation from ANEO, the prize for the best oral communication at the Mediterranean Dental Forum in Barcelona and another prize for oral communication of research in ANEO Zaragoza. In 2014, he obtained a Scholarship from the AEDE. He is lecturer in Endodontics courses with Endovations-FKG Dentaire.

He works in Castellón (Spain) with a preferred practice of endodontics.

Nickel Titanium instruments after clinical use

Jeffrey M. Coil*, DMD, PhD, YaShen, DDS, PhD
University of British Columbia, Canada

Nickel titanium (NiTi) instruments used during root canal preparation, have undergone various changes over the past 2 decades. The traditional benefits of NiTi instruments were their resistance to corrosion, biocompatibility and a mechanical property known as superelasticity. Changes to NiTi instruments include modifications in instrument design, changes in NiTi metallurgy, and recently, different motions used to drive these files. Many studies have shown that NiTi rotary systems are able to prepare root canals with less canal transportation, and at a much faster rate than hand files. However, major concerns to the operator are safety and efficiency of mechanized NiTi files. Factors that contribute to instrument fracture include instrument design, rotational speed, root canal configuration, operator proficiency, number of uses/sterilization cycles, and method of use. This presentation will review the different instrument designs and changes in metallurgy of mechanized NiTi files that have evolved and evaluate how different instrument systems are stressed after clinical use. Two clinically observed stresses to NiTi instruments are file unwinding and breakage. The two mechanisms that can lead to NiTi instrument deformation and fracture, cyclic fatigue and torsional strain, will also be reviewed. Factors to be considered by the clinician to minimize the risk for mechanized NiTi instrument fracture will be discussed.

Takeaway Notes:

Understand the mechanisms for NiTi fracture.

- Describe the different changes in NiTi instruments and how they can be best incorporated for clinical use
- Assess a clinical case and choose a NiTi system best suited for providing safe and efficient root canal instrumentation.

Biography

Dr. Coil received his undergraduate, dental and doctorate degrees from the University of British Columbia, and obtained his certificate in Endodontics at the University of Washington in 1993. He serves as an editorial consultant for the Journal of the Canadian Dental Association and on the Scientific Advisory Board for the Journal of Endodontics. Dr. Coil is the mentor of the Northwest Endodontic Study Club and Seminar, and is currently the Director of the Graduate Endodontics Program, Department of Oral Biological and Medical Sciences, University of British Columbia.

Prosthodontic rehabilitation in elderlies with dysphagia by means of piezography

Susumu Nisizaki

University of Uruguay, Uruguay

Dysphagia is a swallowing disorder frequent in elderly people and increase with aging. There are a lot of local and systemic factors involved in its etiology that must be interdisciplinary diagnosed, for a best and coordinated treatment. The main impact of this disorder is the severe problem in the respiratory tract promoted by the aspiration pneumonia (aspiration of foods or oral infections) and another problem is nutrition.

Dentist-gerodontologist role is to know how to work in a team and play the correct role in rehabilitation and prevention of Oral Dysphagia

Observing some oncological cases will help to understand how gerodontologist must cope with both, treatment and his responsibility in a preventive program for dysphagia. In the prosthodontic treatment it is shown the procedure to recover and optimized oral functions, between them swallowing. An innovative multidimensional impression is proposed to solve successfully some oncological cases. By means of Piezography technique a very good support is given to the oral muscles involved in deglutition.

Dysphagia patients because of Aging, Down syndrome or Amyotrophic Lateral Sclerosis, will receive a more than acceptable swallowing rehabilitation and other oral functions. But it is also very important to emphasis the patient's esthetic and social reinserction. By means of Piezography the patient will gain in quality of life and will recover a safe swallowing. Another aspect to be remarked is Prevention of Dysphagia and its very severe consequences. For this purpose some muscular exercises are design, based on Oral Diadochokinesis and other exercises. Tongue exercises (protrusion, lateral movements and pressure against the palate), cheek exercises (inflate the mouth and rinsing) and lips exercises (protrusion, inflate cheeks). These exercises have to be incorporated and coordinated with other indicated by the health team, as speech therapist, nutritionist and so on.

The objective has to be an integral program of exercises, to rehabilitate and prevent from Dysphagia.

Not only swallowing but also the other oral functions will be improved.

In this prevention chapter Health Literacy plays a very important role in educating not only the patient but also the family and care giver (dysphagia prevention team).

Nevertheless to these patients an Integral Oral Hygiene Care Program (OHICP) must be incorporated, because of pneumonia risk prevention.

Biography

Fellow of the International College of Dentists (ICD)

Member of the Pierre Fauchard Academy

Member of the International College of Prosthodontics (ICP)

Member of the Academy of Dentistry International

Member of the European College of Gerodontology

Founder member of the Latin-American Society of Gerodontology

Member of the Royal Academic Council of Eminent Scientists

Honour member of the Argentinean Society of Geriatric Dentistry

Member of the Royal Academic Council of Eminent Scientists (International Research Promotion Council)

Medal of the city of Paris, France 1997

Scientific Merit Medal, Ecuador 2000

Medal of the University of Concepción-Chile. "For the Free Development of the Spirit" May 2010

Past president of SIPAF (Société Internationale de Prothèse Adjointe Fonctionnelle), 2006-2010

IBC (International Biographical Centre of Cambridge) Award: Outstanding Intellectuals of the 21st Century

IRPC (International Research Promotion Council) Award: "Eminent Scientist of the Year 2003"

Nominated by the American Biographical Institute for "Great Minds of the 21st Century, 2007

Co-author of the text book "Manual of Piezography: Reproduction of the prosthodontic space", Japan's SIPAF Osaka 1999.

Co-designing an effective undergraduate course for the appropriate management of medical emergencies in dental practice

Felicity Croker*, Ph.D, B.Ed (Hons); College of Medicine and Dentistry, James Cook University (JCU), Cairns Campus, Queensland, Australia
Luke Croker, GCertEd, B.NSci; Nursing Director, Division of Integrated Medicine and Emergency Services, Cairns Hospital, Queensland Health, Australia

There is an expectation within the community and from professional bodies, that dentists will have the capacity to manage common adverse reactions and medical emergencies that may occur in a dental setting. The Australian Dental Council (2016) defines the specific and supporting threshold competencies expected of all Australian dental graduates including the ability to manage both dental and medical emergencies. However, it is widely recognized that without appropriate teaching methods, a significant proportion of dental graduates both locally and internationally feel poorly equipped to manage a medical emergency.

Dentists are required to perform invasive and occasionally extensive oral procedures in a community-based setting on a diverse clientele. An ageing population coupled with advances in medical management and an increased burden of chronic disease means that clients may on occasion have significant co-morbidities or risk factors. Consequently, dental practitioners in Northern Australia report frequently encountering medical events in their daily practice. The emphasis on emergency management in a dental setting in Australia is currently on recognizing, pre-empting and treating clinical deterioration before it escalates to an emergency situation (Oral & Dental Expert Group, 2012)

The JCU Bachelor of Dental Surgery prepares work-ready graduates for practice in regional, rural and remote areas. Students are required to be competent managing both dental and medical emergencies in clinical and community settings. Through co-design with dentists and simulation-qualified emergency educators, an authentic, scenario-based training course has been developed in accordance with current guidelines. This effectively enables dental students to respond appropriately to medical emergencies in the dental clinic.

Aim

The aim of this presentation is to share the lessons learnt through five years of co-designing, delivering and assessing medical emergency competency for the JCU Bachelor of Dental Surgery students.

Methods

Post-workshop questionnaires and qualitative data from debriefing staff and students have informed the current training methodology. Through applying an iterative, participatory action approach to the medical emergency training has enabled the co-design of a high fidelity, simulation program that embeds authentic scenarios into the clinical setting. The objective has been to consolidate students' existing theoretical knowledge while providing practical skills and strategies that enhance teamwork, communication, confidence as well as competence.

Discussion

Following ongoing review and evaluation, the use of high fidelity simulated patients and authentic scenarios have been found to be the most effective strategy for enabling undergraduate dentistry students to respond competently and confidently to patients who are medically compromised. The results support the transition from manikins to authentic scenarios within the clinical setting enacted by emergency educators skilled in simulation followed by comprehensive debriefing. This has equipped senior students with adequate theoretical and practical knowledge to feel prepared for appropriately managing common emergency situations independently or with minimal assistance when practising in

diverse regional, rural and remote contexts.

Takeaway Notes:

- The value of a participatory action approach to co-designing an effective emergency skills course for dentistry
- An effective scenario-based training program that uses simulation by skilled actors to develop competence and confidence when responding to medical emergencies in the dental setting
- Why recognizing, pre-empting and treating clinical deterioration before it escalates to an emergency situation is the most effective strategy
- The advantages of separating cardiopulmonary resuscitation drills with manikins from scenario-based simulations in the dental setting involving actors;
- The advantages of involving not only students but also dental staff in the team's responding to the stimulated emergencies
- The value of debriefing skills to learners' perceptions of preparedness
- The importance of constructive alignment between emergency training and clinical assessment

Biography

Dr Felicity Croker is a Senior Lecturer in Dentistry at James Cook University (JCU). She is passionate about developing competent clinicians for regional, rural and remote contexts. Informed by over 30 years of clinical practice, teaching and research in regional, remote and disadvantaged communities within Australia and the Asia Pacific, Felicity is strongly committed to educating a socially accountable health workforce who can contribute effectively to low resource communities.

Dr Croker has applied a broad interprofessional focus to teaching and research roles across disciplinary boundaries while working with social sciences, Indigenous health, health sciences, public health, medicine and dentistry. Her JCU excellence awards reflect her commitment to interprofessional education and community engagement.

Lasers in endodontic treatments

Jaana Sippus DDS, M.Sc.
Laseredu Ltd, Finland

The biggest issue in failure of root canal treatment is still failure in cleaning the canals. The main predictor for long-term success in endodontic therapy is to eradicate microorganisms from an infected root canal prior to obturation. In all nonsurgical endodontic treatments both shaping and cleaning of root canals are the major steps. In case all remnants of debris are not extirpated, this can ruin all further steps of obturation.

Lasers have been reported since the early 1970s in use for nonsurgical endodontic treatment. Still the effectiveness of lasers is a common topic for discussion. The main feature for non-acceptance of laser photonic energy applications is dissatisfaction related with the thermal damage to surrounding tissues. Laser treatment can be of excellent value when removing smear layer from dentinal tubules. With earlier traditional laser techniques, dentin appeared clean with debrided surfaces, with no or little smear layer present and opened tubules. Hence, when treated dry surfaces indicated serious thermal damage.

The aim of this presentation is to help to understand how lasers can be used in daily practice in root canal treatments.

Biography

Dr. Jaana Sippus was born 1958 in Vaasa, Finland. She received her Master of Science degree Lasers in Dentistry from Aachen University, Germany 2014. She also received European Master Degree in Oral Laser Applications (EMDOLA) in Barcelona 2015. She has had private dental clinic since 1981 in Vaasa. Dr. Jaana Sippus is the owner of LaserEdu Ltd. and representative for AALZ GmbH in Finland and AALZ academic co-worker 2015. She has been speaker in several Laser Congresses since 2014 and is Board member of WFLD-ED and LIDS (Journal "Lasers in Dental Science") Advisory Board Member.

International Conference on **Dentistry & Oral Health**

**September 14-16, 2017
Valencia, Spain**

Endodontics vs. implantology

Markus Lietzau, MSc. DDS, MSc.
Dentalsplace, Berlin

A comparison of modern endodontic techniques and treatments in conservative and surgical way to modern implantological functional and aesthetic rehabilitation.

Biography

Dr. Markus Lietzau finished his final exam in 2007 for dentistry. Also he studied medicine from 2002- 2009. In 2008 he became specialist in Endodontics and Implantology. One year later he got the title "Micro Dentistry and Micro Surgery Specialist". He is a speaker for bone rebuild techniques and Implantology/ Endodontics.

From 2013- now he is the owner of a dental clinic in Berlin, called "Dentalsplace".

Epidemiology of malocclusion in adult patients

Alina Noelia Peláez*, María Natalia Rosende, Silvia Matilde Mazza
National University of the Northeast, Argentina

Malocclusion occurs with considerably high prevalence rates. More than 60% of the population is affected by this anomaly. It occupies the third place in problems of oral health in the world, with others difficulties related to the occlusion and the pain produced by these. Most of the oral alterations, and in particular the malocclusions, are not life-threatening but, because of their prevalence and incidence, they are considered a public health problem. Its importance is established not only by the number of people who present it, but also because of the harmful effects they can generate in the oral cavity.

Occlusion anomalies should be adequately assessed and measured, it is necessary to use occlusal index, basic instruments for malocclusion surveys in large populations. The most widely used and recommended in the scientific literature is the Dental Aesthetic Index (DAI), which since its development has proven to be reliable and valid, as well as simple and easy to be apply. It takes into account morphological, functional and aesthetic criteria, it is quantifiable and provides information on both, malocclusion severity and need for treatment, its categories can be ordered on an interval scale, it is directly applicable on the patient or on study models and it does not require the use of photographs or x-rays. However, the DAI has some limitations, taking into account that the measurements of the variables that are expressed in millimeters are made with a specially calibrated probe for this purpose, it is possible to accumulate small measurement errors that may affect the final score of the index, both the procedure and the object being measured are likely to experience various influences that can modify the resulting information.

The DAI evaluates the aesthetic and anatomical components, gives each of the characteristics of malocclusion a certain score, depending on the relative contribution that this characteristic has to the severity of the whole of the malocclusion, which also allows the analysis of each component or occlusal feature in and independently way, based on the clinical characteristics of each patient. It provides information on the morphological, functional and aesthetic aspects of the malocclusion categorized in degrees of severity determining the need for orthodontic treatment.

Takeaway Notes:

- The knowledge of the prevalence of the malocclusion based on its degree of severity and actual real need for treatment, is an essential factor in predicting demand by type of assistance and planning the allocation of available resources in an appropriate way, due to that orthodontic services are not easily available and accessible to the general population, seeking to promote the offer of orthodontic services for the implementation of programs that contemplate preventive, interceptive and treatment actions, bearing in mind that malocclusion is an important health problem in an oral health, establishing priorities for access to care resources in the community.

Biography

Doctor in dentistry and Specialist in Research Methodology in Health Sciences.

Professor/Researcher in the Chair: Research Methodology. Faculty of Dentistry - National University of the Northeast (UNNE).

Scientific Evaluator at a Meeting of Scientific and Technological Communications, organized by the General Secretary of Science and Technical UNNE. Representative of the Faculty of Dentistry in the Commission of Bonding and Transfer of the National University of the Northeast.

Member of the Organizing Committee of the Meeting of Scientific and Technological Communications of the UNNE.

Member of the Scientific Commission: Guidance, support and follow-up of the Research Fellow. FOUNNE. Member of the Scientific Commission for Coordination of Scientific and Technological Activities FOUNNE. Member of the Commission of Self-evaluation of the Faculty of Dentistry UNNE.

Monitoring plaque through caregivers using the community plate index (CPI)

Jairo Corchuelo Ojeda
University of the Valley, Colombia

The measurement of dental plaque through indexes has allowed to evaluate the oral hygiene of the people, to evaluate the effectiveness of programs of oral health promotion and the effectiveness of therapeutic methods among others. The School of Dentistry at the University of Valle in Cali, Colombia, and the Pacific XXI century research group have developed an oral hygiene index for community use that has been applied through caregivers such parents, school teachers, community mothers And groups of adolescents from schools that are finishing their high school studies and perform social work as volunteers.

In 2009, a screening test was conducted on 83 children at a school in the city of Cali to determine the sensitivity of the community plaque index and found that it was more sensitive than the Silness & Loe and Greene & Vermillion indices; also it did not show significant differences with the pattern index. The measured sensitivity was 95.1 (95% CI: 92.5-97.4); 75.2 (95% CI: 73.1 - 77.1); 69.5 (95% CI: 66.0 - 73.0) for CPI index, index detritus Greene - Vermillion and index Silness and Loe respectively.

In 2010, an uncontrolled trial was carried out, evaluating the efficacy of parents' plaque monitoring in grade 0 children at the Juan Pablo II School. Participated 32 students, 18 girls and 14 children with an average age of 5.6 years. The group with adherence greater than 75% was made up of 5-year-old children; the plaque index presented significant differences at weeks 8, 12, 18, 20, 24 and 28 ($p < 0.05$).

A CPI concordance study among dentistry students and ninth grade students in a high school examined 119 children in grades three, four, and five of elementary school. In the standardization of Community plaque index concordance was 92% (Kappa index) and no significant differences between rates of plaque recorded among evaluators found.

The CPI was also applied by 116 teachers from 20 schools participating in the healthy school strategy in 20 municipalities in Valle del Cauca who were trained in oral health promotion and plaque control through standardization of the CPI. The teachers carried out 160 actions to promote oral health to groups of schoolchildren benefiting 6400 schoolchildren. An initial plate index of 66% was lowered to 26%.

It is concluded that the design of an index for easy to use, low cost, high coverage, patient participation monitoring of different personnel to the dental clinic makes it possible to achieve the benefits of prevention to a large number of population contributing to control Risk factors of the two most common oral diseases such as caries and periodontal diseases.

Takeaway Notes:

- Attendees will have information with scientific evidence to use a plaque index easily applied at the community level with the participation of staff involved in the care of children
- You can apply the index with your patients in the daily consultation and monitor the hygiene of prevention programs
- The application of the community plaque index is a practical and economical solution in the monitoring of oral health promotion and disease prevention programs
- Teachers will be able to participate in multicenter research on the participation of caregivers in the oral health of children

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Professor of Dentistry at the School of Public Health at the University of Valle, with a doctoral degree in Public Health Sciences at the University of Guadalajara (Mexico), a Master's Degree in Health Administration from University of Valle (Colombia), Specialist in Finance of the Libre University (Colombia), Specialist in Strategic Management in Information Systems of the University of Santiago de Cali (Colombia) and Academic Stay in Dental Public Health at the University College of London.

At the professional level he has been a public health advisor and manager in Hospitals of different levels of care. I have participated in the direction of the National Survey of Health, Welfare and Aging Colombia 2015. He is currently managing the Oral Health Research Group Pacific Siglo XXI. He participated as a tutor in the virtual campus of Public Health of the Pan American Health Organization in the course of Social Determinants in Health.

Evidence of the multifactorial etiology with influence of social determinants (sense of coherence) on the dental caries experience

Carolina Freitas Lage*, PhD¹, Lívia Bonfim Fulgêncio, PhD², Patrícia Corrêa-Faria, PhD³, Júnia Maria Cheib Serra-Negra, PhD⁴, Saul Martins Paiva, PhD⁴, Isabela Almeida Pordeus, PhD⁴

¹Department of Pediatric Dentistry and Orthodontics, Universidade Vale do Rio Verde (UNINCOR), Belo Horizonte, MG, Brazil.

²Department of Pediatric Dentistry and Orthodontics, Centro Universitário Newton Paiva, Belo Horizonte, MG, Brazil.

³School of Dentistry, Universidade Federal de Goiás, Goiânia, GO, Brazil.

⁴Department of Pediatric Dentistry and Orthodontics, School of Dentistry, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil.

New perspectives on the etiology of dental caries have been addressed. In this context the study on the influence of social determinants on this disease are essential. In order to clarify more about this relationship I present the following study. The objective of this study was to investigate the relationship between the dental caries experience and the Sense of Coherence (SOC) of mothers and adolescents. A case-control study nested in the cross-sectional study was conducted in the city of Itabira, Brazil, with a sample of 1038 adolescents aged 13 to 15 years, enrolled in schools in the city of Itabira and their mothers. Of these, 346 of them were classified as cases, due to the experience of dental caries and 692 were classified as controls, without dental caries experience. Cases and controls were matched by gender and age. The data were collected through a questionnaire on economic aspects, the short version of the SOC scale (SOC-13) that was applied to both (mothers and adolescents) and oral clinical examination to diagnose the experience of dental caries and presence of dental plaque. The association between dental caries experience and independent variables was performed through descriptive analysis, McNemar test and univariate and multivariate conditional logistic regression. Univariate and multivariate regression models were constructed. In the second model, the independent variables that were significantly associated with the dependent variable in the first model were included individually. Adolescents with low maternal SOC (OR = CI 12.52, 95%: 5.14-30.47, $p \leq 0.001$) and low adolescent SOC (OR = 6.60, 95% CI: 3.22- 13.51, $p \leq 0.001$) had a higher chance of presenting dental caries experience. It was concluded that, despite not defining the temporal relationship between the association, the data indicate that SOC of adolescents and maternal SOC are independently associated with the dental caries experience in adolescents. Furthermore, this is the first study that describes this association through a case-control and shows the influence of social determinants on the dental caries experience. These findings show how important it would be to invest in interventions aimed at increasing SOC as a way to improve oral health, as new studies consolidate this association. Moreover, as the results contradict some studies and resemble others, it suggests that a better understanding of the SOC of the adolescents and their mothers in relation to the dental caries experience is still necessary, since this relationship is not yet well elucidated in the literature. The interaction between environmental and social factors and how they affect oral health is the way to reduce inequalities found in the oral health of the population. Due to this, through the knowledge of the influence of the social determinants identified here, such as SOC in the adolescent dental caries experience, specific strategies that go beyond intervention, should be considered as a form of Health Promotion and an alternative to which the Individuals remain free of dental caries.

Takeaway Notes:

- This study alerts dentists to the importance of understanding dental caries within the context of social determinants.
- It provides a new insight into the development of prevention and health promotion measures, focusing on the perceptions of individuals.
- Shifts the focus of health prevention to reduce inequalities as a whole, to extinguish inequality of health, and even to social inequalities.
- Actions of interventions aimed at increasing the SOC of mothers and adolescents becomes a pathway for the control of dental caries.

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Bachelor's degree in dentistry from Pontifícia Universidade Católica de Minas Gerais, PUC-MG (2/2009). Master's degree in dentistry with an emphasis on pediatric dentistry from Universidade Federal de Minas Gerais, UFMG (1/2013). PhD in Dentistry with an emphasis on pediatric dentistry from Universidade Federal de Minas Gerais, UFMG (2/2016). Has clinical and teaching experience in Dentistry, with emphasis on Pediatric Dentistry and Preventive Orthodontics.

Scientific Initiation Fellow at the CNPQ from 2008 to 2009. Scholarship holder during Master's degree from CAPES from August 2011 to July 2013 and during PhD degree from 2014 to 2016.

Professor of the undergraduate course in Dentistry, area of concentration in Pediatric Dentistry of the University of Vale do Rio Verde / UNINCOR. Professor of the Specialization Course in Pediatric Dentistry - São Leopoldo Mandic. Professor of the Course of improvement in functional jaw orthopedics - São Leopoldo Mandic.

An innovative way for direct reinforcement of endodontically treated teeth

Ali A Razooki Al Shekhli

Ajman University/ Fujairah Campus, UAE

This topic is related to Endodontic and Restorative Dentistry and mainly focus on the importance of direct and immediate reinforcement of endodontically treated teeth without the need for indirect conventional crowns to overcome certain challenges in restoring endodontically treated with indirect crowns especially when there is insufficient time to fabricate a classical indirect restoration (crown) or when the patient suffers from financial problems or even during the phases of normal endodontic treatment for extremely weak teeth that need immediate reinforcement before initiation of the endodontic treatment. It serves well also to restore endodontically treated teeth associated with questionable prognosis as a cheap provisional restoration before the placement of classical indirect restoration (indirect crown).

This new innovative way is conservative, easy, cheap and direct (can be performed immediately).

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

Future trends in orthodontic diagnostics: Role of radiographic and biochemical markers

Mohita Sinha*, M.D.S, B.D.S, Maulana Azad Institute of Dental Sciences, New Delhi

Tulika Tripathi, Professor & H.O.D, Maulana Azad Institute of Dental Sciences, New Delhi

Skeletal maturation refers to the degree of development of ossification in bone. Residual facial growth and timing are amongst the most critical aspects for the application of treatment planning and retention in Orthodontics. Starting treatment in a growing patient at the right time has demonstrated significant favorable effects in the correction of skeletal and dental disharmonies in transverse, sagittal, and vertical planes. Hence, it is of fundamental importance to determine the level of biologic maturation and the subsequent evaluation of growth potential during preadolescence and adolescence.

The development status of an individual can be assessed using growth indicators such as chronological age, peak height velocity, and facial growth spurt, radiographic assessment of skeletal maturation and staging of dental age. Considering a great variability of inter observer agreement in the use of the various growth maturity indicators, strict adherence to clearly explained diagnostic characteristics for each method of growth assessment is highly recommended. Besides, Hassel and Farman have stated that as skeletal maturation is a continuous process, one diagnostic tool should not be relied on too heavily. Thus, the various growth maturity indicators must be used together when considering Orthodontic corrections to ensure accuracy.

The advent of biochemical markers, like Insulin-like Growth Factor-1 (IGF-1) and Alkaline Phosphatase (ALP) provide newer possibilities for growth assessment. These represent agents that are directly involved in bone growth and remodeling. Multiple studies have suggested that the changes in the levels of biomarker with bone growth and remodeling are related to pubertal stages. Biomarkers have the advantage of being quantitatively evaluated from various biological fluids like blood, saliva and urine, thus overcoming the subjectivity associated with radiographs.

In this talk I will present evidence-based guidelines for assessment of skeletal maturation using physiologic, radiological and biochemical diagnostic tools. I will also present results on a clinical study done to assess the applicability of serum and urine IGF-1 in identifying skeletal maturation stage. The clinical study was performed at the Maulana Azad Institute of Dental Sciences, New Delhi with female subjects in the age range 8 to 20. I will present the design of experiments, collection and processing of samples and analysis of the collected data. Our key results indicate that IGF-1 can be used as an objective quantitative method to identify skeletal maturation stage. Urine IGF-1 promises to be a noninvasive surrogate of serum IGF-1 that opens tremendous opportunities in clinical orthodontics. As tools for biochemical assays are becoming readily available in diagnostic laboratories, collection of serum and urine for subsequent identification and monitoring of maturation age can add a significant benefit to personalized and effective orthodontic treatments.

Biography

Mohita Sinha received her Master of Dental Surgery (MDS) in Orthodontics & Dentofacial Orthopedics from the premier Maulana Azad Institute of Dental Sciences, New Delhi, India in 2015. During her three-year tenure she worked on several cases demanding orthodontic, orthopedic, myofunctional, orthognathic and multi-disciplinary treatment. She has been a part of various inter disciplinary teams, avidly involved in orthodontic planning of procedures like secondary alveolar bone grafting, Le Fort maxillary surgery, bilateral sagittal split osteotomy and orthodontics. Mohita Sinha successfully executed a cross-sectional clinical study for the estimation of Insulin-like Growth Factor I (IGF-1) in serum and urine, as a biochemical marker for growth assessment. The breakthrough findings on the biochemical marker have been published in the December issue of the prestigious American Journal of Orthodontics and Dentofacial Orthopedics in 2016. She was ranked 12th (top 0.1% dental graduate student) in the All India Post Graduate Dental Entrance Examination in the year 2012. She completed her Bachelor of Dental Surgery (BDS) from the Government Dental College, Rohtak where she received the Academic Excellence Awards in 2007 and 2010. Her research interests span role of biochemical markers in diagnostics and growth, biomechanical principals in orthodontics, skeletal anchorage systems and craniofacial orthodontics.

Avoiding legal claims in endodontics

Reema Alghaithy
King Fahd Hospital, Saudi Arabia

Patients' claims of negligence and malpractice subsequent to endodontic misdiagnosis and treatment failures are common. Endodontics is one of the most challenging dental specialties. Due to the huge growth in patient expectations, dentists are becoming more concerned of litigations and regulatory scrutiny. This talk aims to describe the trend of endodontic claims, to identify and analyze the errors commonly encountered by dentists while performing endodontic treatment, and to highlight top tips for avoiding such claims in view of the international guidelines of accepted treatment protocols.

Use of CAD/CAM and 3D printing technology for the fabrication of Co/Cr denture frames

Chatzipantelis A*, (BDS, MFDS, MSc Clin.Dent, Dip.Rest.Dent, LLM Med.Law), Bhamra G (BDS, MFDS, PhD)
Cardiff University Dental Hospital, United Kingdom

Computer-aided design/computer-aided manufacturing (CAD/CAM) systems have well-established use in Dentistry for the design and production of fixed dental prostheses. However, they are not yet popular for the design and fabrication of removable prostheses.

The University Dental Hospital of Cardiff (UDH), part of the University Dental Hospital of Wales has installed and trialing a CAD/CAM system with various medical and dental applications. The Dental Laboratory CAD/CAM service provides custom made medical devices in Oral and Maxillofacial Surgery, Restorative Dentistry and Neurosurgery. In the field of removable prosthodontics, currently, the CAD/CAM designed dentures account approximately for the 25% of the number of the Co/Cr frames made in the UDH.

CAD/CAM design and 3D printing fabrication of Co/Cr denture frames present certain advantages and disadvantages compared with the traditional route of fabrication of denture frames. The service is more cost effective and time efficient, and the clinician can have better control during the stage of the design; it also allows the replication and trial of the designs. However, the cost of the equipment and the training requirements for both clinicians and technicians may have a negative impact on the broader use of the technology. As the technology gains greater recognition, General and Specialised Dental Practice can benefit from the incorporation of CAD/CAM technology for the fabrication of removable prostheses.

Takeaway Notes:

- The Presentation will provide an insight of the use of the CAD/CAM service within a Dental Hospital and how that improves its workflow.
- I will present the clinical advantages and potential disadvantages of the use of the CAD/CAM system for the design and fabrication of removable Co/Cr prostheses.
- I will present the clinical steps that are followed for the procedure.
- The participants will be made aware of the technology and the benefits of the service within a large teaching Hospital and how the use of such technology can be incorporated in a general dental practice.
- The participants will be introduced in strategies for effective communication with a dental laboratory that provides CAD/CAM service for fabrication of Co/Cr frames.

Biography

My name is Andreas Chatzipantelis and I qualified as a Dental Surgeon from the School of Dentistry of Aristotle University of Thessaloniki. I hold an MSc in Clinical Dentistry from the University of Leeds, a Diploma of Restorative Dentistry and a Masters in Law (LLM) in Medical Ethics and Law. After lengthy experience in Primary Care, the Restorative Dentistry Department at the University Dental Hospital in Cardiff with clinical and academic duties.

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

Cristiane Lopes Miguel* (Dr., M.Dent; Fernando Pessoa University- Porto/Portugal)

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.

Takeaway 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
- Generate hypotheses about what patients research
- Can be useful to promote the necessity of the quality of new researches
- Simplify Medicine based 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. Graduated in Dentistry from Veiga de Almeida University, she also holds a specialization in Public health by the Federal University of Rio de Janeiro. Moved to Porto, where she proceeded to Master degree. 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 has recently concurred and accepted to PhD in Dentistry of Porto University.

The modification of the environment as a key to success in bone regenerative therapy

Alessandro Leonida
Milano-Bicocca University, Italy

Environmental adaptation allowed the evolution and therefore the prosecution of life on Earth. In 2005, Kendall Powell on Nature journal introduced an important concept for both the retrieval and the study and developing of stem cells, in different tissues of our organism: the ECOLOGIC NICHE. Thinking about stem cells in isolation become important, it could be productive thinking about an individual component of a bigger system, more complex; actually it is falsely simplified. Another concept is linked to this one; it was introduced by Blau in 2001, who said that the modification of the environment plays a significant role in the differentiation of multipotent stem cells. The aim of the study is to evaluate the influence of the environmental modification histologically, using inducible solution in bone healing. In this clinical-histological study were selected 6 patients in good health, with an age between 35 to 58, 4 male and 2 female, which needed the extraction of at least 2 teeth. All patients accepted a therapeutic plan, which included the implant placement in order to solve their partially edentulous. In one dental alveolus was placed a heterologous biomaterial (AD bone®) blended with normal saline. In the second alveolus, the biomaterial was blended with inducible solution. After 60 days, during the reopening phase due to a previous implant placement, it was taken a sample with a milling cutter trephine 2mm for histological examination at the Department of Anatomy at Brescia University. The authors tried to demonstrate how there is no need to place more stem cells in a bone loss zone in order to get it better, but an environmental modification is sufficient to improve it.

Biography

Alessandro Leonida has a degree in dentistry at the Dental School of Milano Statale University in 1998, he completed his perfection in oral-maxillofacial surgery at the age 29 years from Istituto Stomatologico Italiano. He completed his PhD in Neuroscience at the age of 35 at Milano Bicocca University - School of Medicine and he is a researcher in the same University. He has published many papers in reputed journals and five books. The last book "The stem cells and gene therapy in dentistry" was published in March 2017.

DAY 2

Keynote Forum

International Conference on

Dentistry
and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

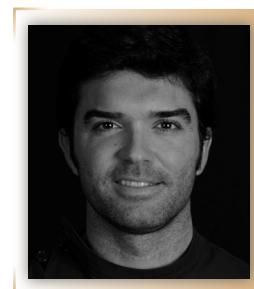
International Conference on **Dentistry & Oral Health**

**September 14-16, 2017
Valencia, Spain**

Inter disciplinary conservative and aesthetic dentistry

Vicente Faus-Matoses

Universidad de Valencia, Spain



Patients aesthetic perception has been increasing bonded to the necessity of preserving their own healthy dental tissues. That is one of the main reasons why the dentists have to apply very conservative procedures during the aesthetic treatments. The knowledge of these conservative procedures (synergy between orthodontics and conservative dentistry, composites and ceramics used in the same tooth for a prepress restoration, direct composite full mouth rehabilitations, or full mouth prepress ceramic rehabilitations) by the dentist will establish the success of the restorative aesthetic treatment and the relation with our patients

Biography

Dr Vicente Faus-Matoses is the President of the Spanish Society of Conservative Dentistry (SEOC). Since 2009 he is an Associate Professor in the Conservative dentistry and Endodontics Department at Valencia University (Spain), where he is involved in many research projects in the field of Dental education, Endodontics, Conservative Dentistry and Esthetics. Since 2007 he is also a collaborator professor of the Master in Restorative dentistry and Endodontics. In 2013 he became the director of the Diploma in Restorative and Esthetic Dentistry at the same university.

Dr. Faus is an invited professor at different universities and also a frequent speaker at conferences and courses about conservative and esthetic dentistry. He has published several papers in reputed dental journals and received various international prizes for his clinical and research work. Last year was named as an associated director of the Journal of Clinical and Experimental Dentistry.

He shares his private practice in Algemesí (Valencia - Spain) in an interdisciplinary dentistry team at Clinica Faus.

New materials for CAD/CAM-manufactured restorations

Peter Reinhard Pospiech

Charite University, Germany



CAD/CAM – procedures have been significantly improved since the first launch of CEREC 1 in 1987. This led to the introduction of new ceramic materials in 1999 with the possibility to use Zirconia as a restorative material even for long-span bridges.

In that consequence not only Zirconia was improved over the time according to the handling and translucency – new glass-containing ceramics were developed as well.

For a few years new high strength composites entered the market with some promises to match better the properties especially of dentin. It is supposed that they improve especially the restorations behavior on implants as those lack of resilience which is nowadays observed more critically.

But even “old” materials as Titanium, CoCr-alloys and high-precious alloys were offered for the use in CAD/CAM-procedures.

The lectures give an overview of the state of the complexity and diversity of the material’s portfolio to help for the decision making for the dentist and technician to get the right material for the individual desires of each patient.

Takeaway Notes

- Help to choose the right material for the individual patient
- Learn more about the specific properties of each material
- Improves the communication between dental technician and dentist
- Gives more insight in the nature of the materials

The implications of poor oral health in the elderly

Peter Foltyn, BDS (UnivSyd), PFA

St Vincent's Hospital, Sydney, Australia



Neurocognitive decline and delirium, frailty, incontinence, falls, hearing and vision impairment, medication compliance and pharmacokinetics, skin breakdown, impaired sleep and rest are regarded as geriatric giants by gerontologists, geriatricians and nursing home staff. As these are all interrelated in the elderly failure to act on one can impact on the others; however, the implications of poor oral health have for too long been ignored and deserve equal status. Mouth pain and discomfort can be devastating for the elderly, compound psychosocial problems, frustrate carers and nursing home staff and disrupt family dynamics. As appearance, function and comfort suffer, so may a person's self-esteem and confidence. The contributing reasons for poor oral health such as rapid dental decay, acute and chronic periodontal infections, compromised systemic health on a background of hyposalivation, coupled with xerostomia-inducing medications, reduced fine motor function, declining cognition and motivation will not only lead to an increase in both morbidity and mortality but also impact on quality of life in one of the most vulnerable groups in the community.

Takeaway Notes

- Reinforce the need for vigilance to avoid the medico legal implications of delayed diagnosis of oral cancer
- Recognize the importance of timely oral care in the elderly
- Recognize the benefit to private dental practice in integrating a proactive role in managing the elderly

Biography

Dr Peter Foltyn has over 40 years' experience in private and hospital practice managing a wide range of medically compromised patients, including routine assessments of head and neck cancer patients and others with complex medical conditions as well as managing oral and dental trauma through his hospital's active Emergency Department. Dr Foltyn established the first fully functional Dental Clinic in Australia to employ a Dental Hygienist within a nursing home and has set up education strategies on oral and dental health for residents, staff and family and was awarded the title of Honorary Life Governor for contributions to the home.

Oral health among the elderly: A public health issue

Nelio Jorge Veiga, DDS, MSc, PhD

Universidade Catolica Portuguesa, Portugal



The presentation will have as main goals the description of the reality of oral health and the prevalence of oral diseases and tooth loss and consequent oral rehabilitation among the institutionalized elderly in Portugal, based on an epidemiological approach. The main problems identified among the elderly are: difficulty in maintaining daily oral hygiene habits, toothache, dental infections, edentulism and poor chewing capacity which may bring other systemic diseases associated. This presentation will show what has been done in the field of oral health education and promotion in various nursing homes in the centre region of Portugal and also some results of epidemiological studies developed in the past years among samples of institutionalized elderly, demonstrating that poor oral health among the elderly should be considered a serious public health issue and the definition of oral health promotion strategies are needed.

Takeaway Notes

- The audience will be able to understand the reality of oral health and the lack of oral hygiene and dental treatment among the elderly.
- Understand the difficulties associated with treatment and primary prevention among the elderly.
- Demonstrate some epidemiological research developed in various samples of institutionalized elderly, which is a population-group the presents lack of epidemiological research developed.
- The audience may benefit in understanding some efficient strategies in oral health promotion and how an epidemiological research among the elderly can be developed.

Biography

I completed the Masters Degree in Dental Medicine in 2006 at the Health Sciences Institute of the Universidade Católica Portuguesa (UCP), Viseu, Portugal. In 2010 I completed the Masters Degree in Public Health at the Medical School of the University of Porto and in 2015 I also completed my PhD degree in Biomedicine at the Beira Interior University. I am professor at the Health Sciences Institute of the UCP and also Clinical Director of the Dental University Clinic of the UCP. I am the responsible for the knowledge field of Epidemiology and Community Oral Health at the same university and I have presented research in these fields counting with more than 100 congress presentations and publications in the form of abstract and over 30 scientific articles.

ICD 2017

DAY 2

Speakers

International Conference on

Dentistry and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

Sessions on: Public health dentistry | Community dentistry and oral epidemiology | Oral pathology and oral radiology

Session Chairs

David Gillam

Queen Mary University of London
UK

Nelio Jorge Veiga

Catholic University of Portugal
Portugal

Session Introduction

Title: Innovative or novel products for the treatment of dentine hypersensitivity

David Gillam, Queen Mary University of London, UK

Title: Multidimensional functional impression in the edentulous elderly

Susumu Nisizaki, University of Uruguay, Uruguay

Title: Developing a sustainable model of oral health promotion through co-designing with rural communities in Australia

Felicity Croker, James Cook University, Australia

Title: Oral and systemic health: A microbial and genomic perspective

Zvi G. Loewy, New York Medical College, USA

Title: Three decades of Cleft Care – Achieving optimal esthetics & function in cleft lip & palate patients

Rakesh Malhotra, Centre For Advanced Dentistry, India

Title: Dental erosion

Leslie Casas A, Universidad Peruana de Ciencias Aplicadas, Peru

Title: Root caries management in patients at high-risk

Marilia Mattar de Amoedo Campos Velo, Universidade de Sao Paulo, Brazil

Title: The effect of glucocorticoid-induced osteoporosis on periodontal bone loss

Paula Goes, Federal University of Ceara, Brazil

Title: Successful Use of 940nm diode laser in oral soft tissue surgery

Maha Ali Al-Mohaya, Prince Sultan Military Medical City, Saudi Arabia

Title: Developing tissue engineered models of early invasive oral squamous cell carcinoma: A preliminary study

Qian Ren, Beijing Stomatology Hospital, China

Title: Minimizing the risk of relapse in post orthodontic patients

Svitlana Koval, SK Dental, Ukraine

Title: Multidisciplinary therapeutic approach: About a diabetic child insulinodependant

Saoudi Fadila, Blida medicine university, Algeria

Title: Erosive oral lichen planus and its relevance to Helicobacter pylori infection

Xiaobing Guan, Beijing Stomatology Hospital, China

Title: Difficult cases and their clinical solution

Walid Odeh, Academic Specialized Dental Center, Jordan

Title: Prophylactic intervention for temporomandibular pain and dysfunction: A methodological study

Christina Mejersjo, Sahlgrenska Academy, Sweden

Innovative or novel products for the treatment of dentine hypersensitivity

David G Gillam* BA, BDS, MSc, DDS, FRSPH, FHEA, MIC, **Robert G Hill**BSc. MsC. Ph.D. DIC.
Queen Mary University of London, UK

Dentine Hypersensitivity (DH) is a clinical problem that may impact on the quality of life of individuals who may experience discomfort when eating and drinking hot and cold food and drink during their day to day activities. Currently there is no ideal desensitizing product (Over-the-counter [toothpaste or mouthwash] or dentist applied) that provides both fast acting and long lasting protection against the pain associated with DH. It may, however be unreasonable to expect that any one desensitizing product or treatment approach would successfully resolve all the clinical factors associated with DH and therefore the search for the ideal desensitizing agent must be implemented (Gillam et al. 2013). Currently toothpastes, gels and mouthwashes are designed to reduce or relieve pain arising from DH based on either their 1) tubular occluding or 2) nerve desensitization properties. Generally speaking, toothpaste formulations which cover the root surface and occlude the tubules tend to reduce fluid flow, however it would be more advantageous for toothpastes to not only cover the surface of the dentine but also penetrate deeper into the tubule in order to provide deep a more durable longer lasting effect. Toothpastes that occlude the tubules only at the surface are likely to be removed more readily either by acid dissolution or through brushing habits. More recently there has been a development in a number of novel products including bioactive glass, nano-hydroxyapatite, calcium triphosphate, calcium phosphate, self-assembling peptide scaffolds for remineralisation and DH protease inhibitors as well as combination techniques such as lasers and the application of professionally applied desensitizing products. This presentation will provide an overview of the current treatment modalities, techniques and products and will provide an update on the various innovative or novel products that have been suggested to be effective desensitizing products based on in vitro and clinical evidence.

Takeaway Notes:

- The presentation will update the audience on what is current status of desensitizing products as well a guide to future trends in research
- The presentation will enable the audience to develop and expand their research interests in both in vitro and clinical evaluation of novel and innovative products and treatment modalities
- 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.
- The presentation will introduce the methodology currently available to assess the potential effectiveness of desensitizing products and examine the importance of the link between the in vitro and clinical environment when determining the effectiveness of these products.

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.

Multidimensional functional impression in the edentulous elderly. By means of piezography

Susumu Nisizaki

University of Uruguay, Uruguay

Multidimensional functional impression is the solution for completely edentulous patients, leaving aside conventional techniques that produce dentures but not oral rehabilitations.

The basis that makes possible this concept are:

- 1- A thorough diagnosis, based on a general and oral examination that allows selecting the best technique and materials.
- 2- Good clinical conditions, which determine the procedures to take primary and secondary impressions successfully, to obtain support, retention and stability. This is the first stage of a physiological and functional impression.

Reproducing supporting tissues is not enough, it is important to know the limits of the impressions. This means that the borders of the individual tray will be absolutely defined. Muscles insertion, mobility and contraction must be taken into account, respecting normal tongue, cheeks and lips activities. This is the second step of the functional impression.

- 3- Piezographic procedure. To obtain an integral physiological and completely functional impression it is necessary to determine the shape and volume of the new prosthodontic appliances. Piezography will provide a personalized volume and shape of the whole polished surface and will also determine the future buccal and lingual aspects of the artificial teeth (position and width).

The volume depends on the ridges conditions. Generous ridges may deserve a piezography with more volume. They are able to receive heavy loads during mastication. Consequently, masticatory efficiency will increase and better conditions may be provided to select different foods consistencies. To obtain wider piezographic records, it is necessary to use regular flow impression materials.

On the contrary, when ridges conditions are thin it will be necessary to select narrow occlusal surfaces. In these circumstances, thinner piezographic registers will be necessary and lighter flow impression materials must be used.

Piezography's new philosophical focus takes into account two stability concepts: the mechanical one, respecting the functional activity of the surrounding muscles and the biological stability, avoiding ridges overload.

The volume obtained as result of the piezographic record represents the prosthodontic space, formerly neutral zone. The prosthetic appliance must be constructed inside it, occupying the prosthodontic space in its shape and volume. Balanced muscles will allow comfort for the patient during different oral functions. That is why the patient says: "I feel as if I have nothing inside my mouth".

With piezography the patients create their own records following our guidance, that is why it is an interactive technique.

When taking the piezographic register a non-shaped impression material is poured inside the mouth. While patients repeat the phonemes (sounds): "Sees, so, se, the, te, moo" they create the impression's shape, width and location.

Shape and volume depend on the tongue, cheeks and lips' muscles mobility and strength (ugokikata-chikara). Depending in some way on the quality of the voice. If the phonemes (sounds) are repeated with a very low voice, the shape and volume of the piezographic record will not be accurate. Consequently, a loud voice is needed. With a loud voice more mobility and strength will be obtained. So instead of the sound "so" (with a soft voice) the patient repeats "SO" (with a strong voice), and the same with the sound "SIS" instead of "sis" and "SE" instead of "se".

- 4- Washing technique. The last stage of Multidimensional Functional Impression is the washing technique, performed after the final trial of the artificial teeth and after evaluating occlusion, phonetics and aesthetics. With a high flow impression material the polished surfaces are covered and all the phonemes (sounds) are repeated for the last time.

International Conference on **Dentistry & Oral Health**

**September 14-16, 2017
Valencia, Spain**

The Multidimensional Functional Impression for the completely edentulous is finished, being a clinically obtained impression.

Biography

Fellow of the International College of Dentists (ICD)
Member of the Pierre Fauchard Academy
Member of the International College of Prosthodontics (ICP)
Member of the Academy of Dentistry International
Member of the European College of Gerodontology
Founder member of the Latin-American Society of Gerodontology
Member of the Royal Academic Council of Eminent Scientists
Honour member of the Argentinean Society of Geriatric Dentistry
Member of the Royal Academic Council of Eminent Scientists (International Research Promotion Council)
Medal of the city of Paris, France 1997
Scientific Merit Medal, Ecuador 2000
Medal of the University of Concepción-Chile. "For the Free Development of the Spirit" May 2010
Past president of SIPAF (Société Internationale de Prothèse Adjointe Fonctionnelle), 2006-2010
IBC (International Biographical Centre of Cambridge) Award: Outstanding Intellectuals of the 21st Century
IRPC (International Research Promotion Council) Award: "Eminent Scientist of the Year 2003"
Nominated by the American Biographical Institute for "Great Minds of the 21st Century, 2007
Co-author of the text book "Manual of Piezography: Reproduction of the prosthodontic space", Japan's SIPAF Osaka 1999.

Developing a sustainable model of oral health promotion through co-designing with rural communities in Australia

Felicity Croker, Ph.D, B.Ed (Hons)*; College of Medicine and Dentistry, James Cook University (JCU), Cairns Campus, Queensland, Australia
Karen Carlisle, Ph.D, B.Psych (Hons); Research Fellow, Capacity Building, Anton Breinl Research Centre for Health Systems Strengthening, James Cook University (JCU), Townsville Campus, Queensland, Australia
Sarah Larkins, Ph.D, MPH&TM, MBBS, College of Medicine and Dentistry, James Cook University (JCU), Queensland, Australia
Jane Farmer, Ph.D. Director, Swinburne Social Innovation Institute & Professor of Health and Social Innovation, Swinburne University, Melbourne, Australia

It is widely acknowledged that people in rural communities experience poorer oral health outcomes than those in larger centres. Further, children and adolescents have been identified as at-risk populations. Effectively engaging them in health promotion has the potential to impact positively on their lifelong general health. Addressing this through a community participatory approach has been the focus of the Engaging Communities in Oral Health Project (Rural ECOH).

This paper reports on the co-design and implementation of innovative practices that have enabled improved oral health outcomes for children and adolescents in three rural communities in North Queensland, Australia. Through exemplars, the presenters will discuss the varied place-based initiatives that are effectively strengthening local capacity to deliver sustainable oral health programs for young people.

This National Health and Medical Research Council (NHMRC) funded Rural ECOH project (2014-2016) involved two rural primary health organisations, Royal Flying Doctors Service, State Health Services, Latrobe and James Cook (JCU) Universities working with six rural communities in Queensland and Victoria. The method adopted for the project comprised of two stages.

- 1) Community participatory planning using structured workshops on: local health and needs, evidence about how to address health challenges, evidence-based initiatives implemented elsewhere and planning local solutions.
- 2) Implementation of local solutions and monitoring by JCU, local providers and community members.

Innovations designed and implemented in partnership with local community members focused on low-cost, sustainable activities, which were reflective of the rural context and available workforce. Activities included 'lip the lip' training for non-oral health practitioners, dry tooth-brushing programmes, oral health checks and oral health promotion for adolescents at school immunisation sessions. Embedding senior dental students into translational research projects and the delivery of oral health promotion to rural adolescents has been integral to the sustainability of this rural project.

The presenter will discuss the role of sustainable partnerships between rural communities, health services and the role of the university over a time of significant changes in the health system. When planning a sustainable way forward, the university provides an enduring anchor organisation within this fluid health environment. Where a university program based on social accountability invests in partnering with primary health organisations, State health services, State Education and other community organisations, then embedding the activities within a rural context is achievable.

Takeaway Notes:

- This presentation will:
- Discuss the value of a community participatory approach for co-designing and implementing innovative practices that enabled improved oral health outcomes for children and adolescents in rural communities
- Share exemplars of the varied place-based initiatives that are effectively strengthening local capacity to deliver sustainable oral health programs for young people.

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

- Discuss how embedding senior dental students into translational research projects and the delivery of oral health promotion to rural adolescents has been integral to the sustainability of this rural project.
- Demonstrate how a university dental school provides an enduring anchor organization for sustainable community oral health initiatives within a fluid health environment.

Biography

Dr Felicity Croker is a Senior Lecturer in Dentistry at James Cook University (JCU). She is passionate about developing competent clinicians for regional, rural and remote contexts. Informed by over 30 years of clinical practice, teaching and research in regional, remote and disadvantaged communities within Australia and the Asia Pacific, Felicity is strongly committed to educating a socially accountable health workforce who can contribute effectively to low resource communities.

Dr Croker has applied a broad interprofessional focus to teaching and research roles across disciplinary boundaries while working with social sciences, Indigenous health, health sciences, public health, medicine and dentistry. Her JCU excellence awards reflect her commitment to interprofessional education and community engagement.

Oral and systemic health: A microbial and genomic perspective

Zvi G Loewy^{*2,3}, Steven Offenbacher¹, Silvana P Barros¹, Sompop Bencharit¹, Ning Yu¹, John Preisser¹, Kevin Moss¹.

¹University of North Carolina

²Touro College of Pharmacy and Department of Microbiology & Immunology

³New York Medical College

Objective: The objective of the study was to compare the transcriptome of human healthy mucosa with the transcriptome of chronic oral stomatitis mucosa. The hypothesis was that by using whole transcriptome analysis one could gain novel insight into the host response mechanisms of chronic oral Candidiasis by identifying key molecular pathways associated with pathogenesis.

Materials and Methods: Oral biopsies were obtained from 17 healthy and 15 *Candida albicans*-infected stomatitis subjects. The presence of *Candida albicans* was confirmed by cytology and cultivable methods. For transcriptome analyses a false discovery rate (FDR) of <0.05 was used. Array quality control and expression pathways associated with stomatitis were identified by using PartekTM and Ingenuity Pathway AnalysisTM. Specific differentially-expressed genes identified by mRNA array data were confirmed by measurements of salivary protein expression by multiplex analyses.

Results: Microarray analysis of mRNA expression indicated that in stomatitis there were 3034 genes that were differentially expressed and met the $FDR < 0.05$ criteria. 235 genes were up-regulated >2 -fold including key cytokines [IL1F6, IL1B], chemokines [CXCL1, CCL10, IL8] as well as markers of epithelial and neutrophil activation. 71 genes were down-regulated >2 -fold including epithelial adhesion molecules and keratins. Five of the 6 most significant gene ontology pathways involve inflammation and activation of the immune response with CD28 and CTLA signaling of T cells. There was strong up-regulation of TLR2, CD14, MYD88, IKKA and NFkB as the dominant toll-like receptor signaling pathway.

Conclusions: Neutrophil recruitment and activation, epithelial suppression and T cell activation appear as major pathways in chronic oral Candidiasis. Tissue up-regulation of TLR2 pathways, as well as potential *Candida albicans* binding proteins was observed, whereas keratin and adhesion molecule synthesis were down-regulated. Several candidate biomarkers to potentially identify the presence of oral Candidiasis were identified.

Takeaway Notes:

- An association exists between denture wearing and systemic health
- Denture wearers may be at greater risk for systemic disease compared to dentate individuals
- Significant differences in gene expression patterns are observed in denture stomatitis patients as compared to healthy individuals

Biography

Dr. Loewy received his education at Rensselaer Polytechnic Institute and at the Albert Einstein College of Medicine. Dr. Loewy is on the faculty of the Touro College of Pharmacy, New York Medical College and Drexel University; is on the boards of the Jerusalem College of Technology, the New Jersey Technology Incubator, a member of the scientific advisory board of C3 Jian, Inc.; a member of the steering committee of the Pennsylvania Translational Research Partnership Institute and the Coulter advisory council; and is an Editor of the Journal of Prosthodontics and the Journal Microarrays. Dr. Loewy has published broadly and has over 25 issued patents.

Three decades of cleft care – Achieving optimal esthetics & function in cleft lip & palate patients

Rakesh Malhotra, BDS, MDS, FICD (USA)
Centre for Advanced Dentistry

The management of Cleft Lip & Palate patients is a challenge due to the inherent complexity & multiplicity of the associated problems. There are cosmetic and dental abnormalities, as well as speech, hearing and facial growth difficulties. All of these combined can lead to psycho-social problems for the individual. A dedicated team of specialists is essential to achieve a functionally optimal & aesthetically acceptable treatment outcome. Dental & Orthodontic treatment forms an important part of the management of such cases & is integral to achieving the 3 main Oral health goals – the patient must look well, eat well & speak well.

It is important that repairs of cleft lip & palate are done at the proper time as far as the child's growth & development is concerned. This presentation would focus on the critical timing of various treatment procedures involved. Also highlighted would be the important role of the general dentist and how to provide effective orthodontic treatment in such patients with detailed presentation of several treated cases.

Biography

Dr. Rakesh Malhotra is a leading Orthodontist and Dental Surgeon of India with over 30 years of clinical experience. He is running an ultra-modern state-of-art dental clinic in Greater Kailash Part I, New Delhi. The clinic is a renowned center in Northern India for general and specialized dental treatment in various clinical disciplines of dentistry.

His wife Dr. Chhaya is also a well known Dentist with specialization in Conservative Dentistry.

Dr Malhotra completed his graduation in 1977 and post-graduation in 1979 from Faculty of Dental Sciences, King George's Medical College, Lucknow, India.

He had a brilliant academic career and was awarded several Gold Medals, Certificates of Honor, Merit Scholarships and Book Prizes for his academic excellence.

Before shifting into full time clinical practice he was on the teaching staff at King George's Medical College, Lucknow and after that at P.G.I., Chandigarh. He was actively involved in post-graduate teaching & research programs.

Despite being in practice Dr. Malhotra till today maintains a strong academic interest.

He has been Clinical Professor, Orthodontics, Subharti Dental College, Meerut where he was actively involved in teaching postgraduate students on an Honorary basis.

He is a regular invitee as Keynote Guest Speaker at national and international conferences and has several publications to his credit in various scientific journals.

In recognition of his contribution to the profession he has been awarded Fellowship of the International College of Dentists U.S.A., the World Federation Of Orthodontics U.S.A. and the Pierre Fauchard Academy, U.S.A.

Dental erosion

Leslie Casas, DDS, MSD, PhD

Universidad Peruana de Ciencias Aplicadas, Peru

Currently exists an excessive or unusual increasing of the consumption of acidic beverages as a part of lifestyle, consequently erosive lesions have also been more evident. Increased prevalence of dental erosion has stimulated the development of strategies to prevent or control its effect.

Dental erosion is a slow demineralization process primarily without non-bacterial chemical involvement caused either by intrinsic or extrinsic acidic factors which ultimately result in a considerable loss of dental hard tissues. It is a multifactorial process which the compromising level of this situation depends on the balance between chemical, behavioral and biological risk factors.

In the early stages, it primarily affects enamel and provokes enamel softening followed by the loss of natural gloss as the first clinical sign. Progressively the underlying dentin is exposed to the oral environment, it causes hypersensitivity, loss of hard tissues and anatomical form.

Several reports have already stated that acidic drinks can damage enamel when they are directly in contact with this surface, promoting a rough texture and gradual wear. The role of the diet on the development of dental erosion is notable and is based mainly on juices, soft drinks and some alcoholic mixed drinks, and actually sports/isotonic drinks and pre workout beverages. The consumption of these last beverages has increased in the lifestyle, fitness athletes and high-performance athletes. Our studies also have demonstrated that sport/isotonic drinks caused a diminution of enamel/dentin micro hardness and increased the enamel/dentin roughness after an in vitro erosion challenge. Related to pre workout beverages, which are acid drinks, caused a diminution of enamel microhardness and increase of percentage loss of surface microhardness (%SML)

Given this scenario, many professionals have been encouraging patients to pursue early interventions when signs are detected, avoiding continuous structural damage to the hard tissue. Some specific dental erosion index is essential for an early diagnosis. Basic Erosive Wear Examination (BEWE) index have been proposed to facilitate diagnosis and help the prevention and management of lesions. This index is useful, easy to apply even in private practice or epidemiological studies.

In this context, bonding restorative procedures are commonly chosen to re-establish the tooth's natural appearance and the function demanded by patients. Enamel and dentin eroded has a modified structure which could be affected by adhesion procedures. However, few information is available about dental erosion and acid drinks as isotonic drinks and pre workout beverages, also erosive process itself to altered substrates from a bonding point of view either.

Takeaway Notes:

- They will be able to use in their clinical practice and their research or teaching.
- Diagnose the early erosion lesions with an appropriate dental erosion index.
- Dental erosion is an actual concern at the world, so its prevalence could be investigated in other countries and age ranges.
- Research: It could be replied in other faculty as an epidemiologic research or clinical research.
- Teaching: It is necessary to teach to the future dentist to diagnose early dental erosion
- Clinical Practice: it's possible to diagnose early erosion lesions using a specific erosion index and the clinical will be able to take preventive or restorative treatments

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Research Professor at School of Dentistry, Universidad Peruana de Ciencias Aplicadas (Perú).

Doctor in Applied Dental Sciences, PhD.

Master degree in Operative Dentistry in Bauru School of Dentistry (FOB), Sao Paulo University, São Paulo – Brazil, MSD.

Postgraduate Program in Operative Dentistry in Bauru School of Dentistry (FOB), Sao Paulo University, FUNBEO - São Paulo, Brazil.

Member of International Association for Dental Research (IADR);

Member of Sociedade Brasileira de Pesquisa Odontológica (SBPqO);

Member of del Grupo Brasileiro de Materiais Dentários (GBMD);

Member of Asociación Peruana de Odontología Restauradora y Biomateriales (APORYB).

International and national speaker.

Root caries management in patients at high-risk

Marília Mattar de Amoêdo Campos Velo^a*, Linda Wang^b, Paulo Sérgio da Silva Santos^c, Ana Carolina Magalhães^d, Rafael Francisco Lia Mondelli^e
^c Department of Surgery, Stomatology, Pathology and Radiology, Bauru School of Dentistry, University of São Paulo, Bauru, SP, Brazil.

^d Department of Biological Sciences, Bauru School of Dentistry, University of São Paulo.

^e DDS, MS, PhD, Full Professor, Department of Operative Dentistry, Endodontic and Dental Materials, Bauru School of Dentistry, University of São Paulo, SP, Brazil.

Extensive research has been conducted to detect new approaches for the control of dentine root caries, as its prevalence is increasing. As well as coronal caries, the determinant factors for the initiation of root caries are the presence of a cariogenic biofilm and fermentable carbohydrates. However, apatite in dentine has a lower level of mineralization, higher carbonate content and is more susceptible to acidic dissolution than enamel apatite. Although root caries can be found in young adults, its increase in the elderly. As the life expectancy has been longer overtime, it is frequent the presence of retained natural teeth and the prevalence of gingival recessions increases with age, which also increases the risk for root caries development and progression. In addition, radiation therapy of head and neck might increase the risk of radiation-related caries, as recent evidences of direct effects of radiation on tooth structure has been shown. Post-radiation dental caries lesions develop mainly at cervical area, therefore, preventing radiation-related root caries should be understood. Integrated research teams have collaborated to establish more effective projects. The interventions for management of root caries include primary, secondary and tertiary prevention. Some experiments in the development of researches related to the control of root caries and radiation-related caries will be presented, ranging from updating the state of art of these events to the strategies for their treatments. In these projects, the action of a multidisciplinary team has been essential to allow the transformation of the knowledge to integrated and quality attendance of the patient.

Takeaway Notes:

- The outcome of this lecture will significantly help the researches and professors to expand their knowledge and try to provide a clinical response to choose efficacious and appropriate methods to prevent, control and treat root caries, which in turn, has the potential to significantly help the students and improve the quality of life of the patients.
- The main goal of the lecture is discuss about the researches in this area and intensify the interdisciplinary activities among the researchers. This certainly will help the study design and provide new information for the audience. This discussion is extremely important, as recent evidences have been shown the require of new approaches to the prevention and treatment of root/dentin caries (Takahashi and Nyvad, 2016).
- It is important to highlight that, according to the World Health Organization (WHO), it is expect that from 2000 until 2050, the population aged 60 and over will more than triple from 600 million to 2 billion and this demographic change has several implications for public health. Especially for the growing older population and patients at high-risk, root caries has become an increasingly significant dental problem. This patient profile also increased in the dental clinics at the Universities and unfortunately, there is little known about this subject. Despite the intense scientific evidence of the benefits of Minimal Intervention in Dentistry, its consistent acceptance by the professionals from traditional restorative Dentistry still relies as the most challenge. Therefore, the change must take place from the undergraduation education, intensifying evidence-based interdisciplinary activities.

Biography

I was born in Brazil and completed my Master degree in Cariology/Oral Biochemistry at University of Campinas. Now, as part of my PhD in Operative Dentistry by The University of São Paulo, I am living in Manchester (U.K) and doing my research at The University of

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Manchester. In my academic career, I developed an interest in researches about prevention and oral health care, mainly in population at high-risk of dental caries development, as patients submitted to radiotherapy of the head and neck and in the elderly. I am also currently developing a Systematic Review by Cochrane Oral Health regarding "Interventions for managing root caries".

The effect of glucocorticoid-induced osteoporosis on periodontal bone loss

Paula Goes*, P.G., PhD, UFC; Luzia Herminia Teixeira de Sousa, L.H.T.S, MSc, UFC; Eveline Valeriano Moura, E.V.M, MSc, UFC; Ana Larissa Queiroz, A.L.Q, Undergraduate, UFC; Danielle Val, D.V., PhD, UFC; Heliada Chaves, H.C., PhD, UFC; Mario Lisboa, M.L, MSc, UFC; Flávia Furlaneto, F.F., PhD, USP-Ribeirão Preto, Gerly Anne de Castro Brito, G.A.C.B, PhD, UFC
Federal University of Ceara, Brazil

This presentation will show the results of a study which aimed to evaluate the effects of osteoporosis induced by glucocorticoid (GIOP) on bone tissue of rats with experimental periodontitis (EP). For this, it was used male Wistar rats which were divided into groups: Naïve, EP, GIOP and GIOP + EP. The rats of GIOP and GIOP + EP groups received 7 mg/kg of dexamethasone intramuscularly once a week for 5 weeks. Following, EP and GIOP + EP groups were subjected to ligature-induced periodontitis. Naïve group experienced no manipulation. After 11 days, the animals were euthanized and left maxillae collected for macroscopic, radiographic, micro-tomographic and microscopic analysis of alveolar bone loss (ABL). Blood samples were collected for determination of bone-specific alkaline phosphatase (BALP) levels and the right femurs were removed for radiographic and biomechanical analysis. On this study we observed that EP caused ABL and reduced BALP levels ($p < 0.05$), but it did not change the architecture or biomechanics of femur, compared to Naïve. GIOP did not cause ABL, but it significantly decreased alveolar bone mineral density (ABMD), bone percentage and trabecular thickness (Tb.Th) and increased alveolar bone porosity ($p < 0.05$) and significantly reduced BALP serum levels, as well as radiographic density and Young's module of femur, compared to Naïve. There was a greater ABL in GIOP + EP group when compared to EP ($p < 0.05$). GIOP + EP caused a greater decrease on ABMD, Tb.Th, bone percentage and increased bone porosity ($p < 0.05$) and also presented a significant reduction in BALP levels ($p < 0.05$), in radiographic density and in Young's module of femur compared to EP ($p < 0.05$). Therefore we can conclude GIOP can potentiate the destructive effects of EP on alveolar bone and alter the systemic bone loss, by promoting bone resorption and reducing osteoblast activity.

Takeaway Notes:

- After this presentation the audience will be able to apply both models of glucocorticoid induced osteoporosis and ligature-induced periodontitis on their respective research fields, and then go deeper on the investigation of biological mechanisms underlying this relationship that is yet to be understood.
- No doubt that this presentation will help people on their job, considering that this work promotes the development of a new research line since a little is known about this topic in literature. Considering that nowadays it has been observed a great amount of patients using glucocorticoids and osteoporosis is a frequent side effect related to the use of this drug, by the time that more research will be performed about this subject the aspects related to patient treatment will be improved as well.

Biography

Currently, Paula Goes is a full-time professor in the Department of Pathology and Legal Medicine, from School of Medicine at Federal University of Ceará (UFC). She is advisor (Master's and PhD degrees) in the Post-Graduate Program in Dentistry (Periodontology) and in the Post-Graduate Program in Morphofunctional Science at UFC. She coordinates several pre-clinical (in vitro and in animals) studies, with government funding, to investigate the effect of immunoinflammatory response on bone loss in order to suggest pharmacological approaches to prevent and treat periodontitis.

Successful use of 940nm Diode laser in oral soft tissue surgery

Maha Ali Al-Mohaya*, BDS, MSc, DMSc, DABOM, Laser Fellowship

LubnaMajed Al-Otaibi, BDS, MSc, PhD, Laser Fellowship

Prince Sultan Military Medical City, Saudi Arabia

Lasers were introduced into dentistry more than 4 decades ago. Since that time, different wavelengths have been used for oral soft tissue dental procedures. The dental laser can provide clean incision of tissues, immediate coagulation, and minimal postoperative pain, and edema.

A diode laser is a semiconductor device using aluminum, gallium, arsenide, and occasionally indium as the active medium. The pump source is an electrical current, the photons are produced by an electric current. The device produces coherent radiation (in which the waves are all at the same frequency and phase) in the visible or infrared spectrum with wavelengths ranging from 810nm to 980nm. Therefore, all wavelengths are absorbed properly by pigmented tissue, which contains melanin and hemoglobin. However, they are poorly absorbed by calcified tissue such as hydroxyapatite and water present in the enamel. The diode laser-tissue interaction makes it considerably safe and well-indicated for soft oral tissue surgeries in regions near the dental structures.

The diode laser devices have specifications such as relatively small size, portability, and lower costs that attract the dental practitioners and oral surgeons to their use in various surgical indications in comparison with other laser equipment.

In this report, we present a case series of oral soft tissue surgeries (such as Frenectomy, Pyogenic granuloma, irritational fibroma, muoccele) performed with a 940nm diode laser with minimal postoperative complications. All cases were performed in oral medicine clinic by two consultants of oral medicine (Al-Mohaya M & Al-Otaibi L) at Prince Sultan Military Medical City. Written informed consent was obtained from the patients prior to the surgery, and all protective precautions were taken throughout the procedures. Different settings of the device were used according to the specific procedures. Postoperative instructions were given to all patients. All patients have been followed up regularly to ensure complete healing. The uses of a 940nm diode laser in these presented cases offered the best treatment option to reduce the risk of postoperative infection and pain with rapid healing.

Takeaway Notes:

- The advantages of 940nm Diode laser application used in this presentation can be summarized as follows;
- rapid blood vessel sealing, which improves the visibility and improves hemostasis and coagulation
- suture-less procedures, nerve depolarization, thus reducing post-operative pain
- bactericidal effects that reduce postoperative infection, rapid healing and reduced post-operative discomfort, edema, and scarring.
- In areas where aesthetics is important, 940nm Diode laser is a less invasive method compared to scalpel and cryosurgery techniques.
- the diode laser devices have specifications such as relatively small size, portability, and lower costs that attract the dental practitioners and oral surgeons to their use in various surgical indications in comparison with other laser equipment

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Degrees

2014 -2016

2001 -2006

2005

1997-2000

Fellowship of Laser Therapy in Dentistry / Aachen University, Germany

Doctorate of Medical Sciences (DMSc) in Oral Biology/ Oral Medicine. Harvard School of Dental Medicine (HSDM), MA, United States of America

American Board of Oral Medicine. Awarded by American Academy of Oral Medicine

Master of science in Diagnostic Oral Sciences (Oral Diagnosis/Oral Medicine specialty) King Saud University, College of Dentistry, Riyadh, Saudi Arabia.

Developing tissue engineered models of early invasive oral squamous cell carcinoma: A preliminary study

Qian Ren DDS

Beijing Stomatology Hospital, China

Background: Oral squamous cell carcinoma(OSCC) is the most common oral malignancy. A large number of studies have investigated into the mechanisms of carcinogenesis and progression, but very few new interventions based on these researches have been put into clinical practices. It is partially due to the limitations of previous experimental systems. Recently, the tissue engineering technology provides a new approach for cancer research.

However, tumor and the surrounding tumor stroma co-evolve at all times, according to the models built by other researchers by now, the pathological feature indicated by these models could only reflect early staged-tumor invasion. The reactive stroma at early invasive stage differs from lamina propria of normal oral mucosa and the genuine tumor stroma. Actually, it imitates the interface zone at the invasive front of OSCC. So theoretically, the early invasive OSCC models adopting interface zone fibroblasts as stroma cells can mimic the in vivo pathological mechanisms of OSCC more accurately than normal fibroblasts from oral mucosa and cancer-associated fibroblasts from tumor stroma.

Objectives: To investigate the tissue-engineered early invasive OSCC models built on interface zone fibroblasts.

Methods:

1. Isolation and primary culture of fibroblasts collected from interface zone and nearby normal tissue.
2. Development of full-thickness tissue-engineered oral mucosa with normal fibroblasts collected from oral mucosa. Normal fibroblasts were embedded in the mixture of type I collagen and Matrigel to form matrix layer. Seed keratinocytes (Hacat) were planted in the surface and then raised the composite to an air-liquid surface to facilitate stratification of epithelium.
3. Development of early invasive OSCC model with interface zone fibroblasts and cancer cells(Cal27) with above-mentioned tissue engineering techniques.

Results:

1. The accessibility and veracity of interface zone fibroblasts largely depends on the state of the obtained OSCC tissue, including the degree of tumor differentiation, size of the mass, margin of tumor, etc. Of the 2 cases of OSCC specimens, it was easier to define distinct zones in the larger one with obvious infiltration from a patient with poorly differentiated OSCC, the fibroblasts from this specimen were more typical and the proximal fibroblasts showed more characteristics of the classical interface zone fibroblasts: negative for the expression of pan-CK, vimentin positive and α -SMA positive.
2. The full-thickness tissue-engineered oral mucosa was able to reveal the organization of native oral mucosa. Fibroblasts were seen within the collagen matrix, however, the keratinocytes were not well differentiated into stratified layers and no keratin layer on top was detected.
3. The tissue-engineered models of early invasive OSCC can reveal signs of cancer invasion. Local cell invasion was seen at some points of the model. Fibroblasts that were densely distributed near the cancer cell invading parts may indicate the possible recruitment induced by cancer cells.

Conclusions:

The isolation of fibroblasts from OSCC interface zone and vicinity was guided by the "interface zone concept" introduced into OSCC research fields. On the basis of a full-thickness tissue engineered oral mucosa, this three-dimensional, interface zone fibroblasts-incorporated OSCC model successfully mimics OSCC's characteristics in its early invasive stage, revealing a certain degree of cancer cells invasion into the connective tissue.

Takeaway Notes:

- This research showed novel and repeatable approaches to develop tissue-engineered OSCC models with interface zone fibroblasts and oral cancer cells (Cal27) as seeding cells, which successfully mimic OSCC's characteristics in its early invasive stage.
- Tumor engineering technique which is used to build in vitro three-dimensional models with organized histological structure could make researches about solid tumor much more reliable and efficient.
- The early invasive OSCC models are commendable tools to help investigating the epithelial-stromal interaction during different stages of carcinogenesis.

Biography

Education:

DDS, West China School of Stomatology, Sichuan University, 2013

BDS, West China School of Stomatology, Sichuan University, 2010

Scientific background:

As project manager:

1. The effect of FAP-mediated extracellular matrix remodeling on the recruitment of cancer surrounding fibroblasts. Funded by Beijing Natural Science Foundation.

2. The role of "ECM-FAP-TGF β axis" in regulating OSCC extracellular remodeling and CAFs metabolic reprogramming. Funded by Beijing Stomatology Hospital Foundation.

As chief investigator:

1. The time phase characteristics of recruitment and differentiation of the surrounding fibroblasts in oral cancer and regulatory mechanism. Funded by National Natural Science Foundation of China.

2. Association of Helicobacter pylori infection with severity of erosive oral lichen planus. Funded by Beijing Municipal Science & Technology Commission.

Minimizing the risk of relapse in post orthodontic patients

Koval Svitlana, MSc, Orthodontist
SK Dental, Ukraine

Orthodontic treatment presents a challenge in terms of preserving its outcome. Lifetime retention is one of the options to keep the outcome of orthodontic treatment without changes. However, occasionally, orthodontic retainers fail to provide proper post-treatment stability. Occlusal influence on orthodontic treatment stability has been widely discussed. Our newly developed procedure, anteroposterior tooth contact adjustment (APTCA), is based on the computerized occlusal analysis T-scan Novus (Tekscan, USA) and subsequent occlusal adjustment. This unique approach has shown to reduce the risk of orthodontic relapse and can also be utilized in patients presenting specific signs and symptoms of existing occlusal trauma. According to the technique, orthodontic patients are evaluated during the final stage of orthodontic treatment with the use of both computerized occlusal analysis system (T-scan Novus) and occlusal foil. The developed algorithm of examination helps to establish occlusal contacts that can potentially cause unwanted tooth movements. Before the final debonding procedure, necessary adjustments are executed to eliminate existing occlusal interferences. After debonding, lower non-removable wire retainer is placed, and no upper retaining appliance is used to keep teeth from unwanted movements. Retention stage of orthodontic treatment is characterized by monthly occlusal analysis follow-ups with the use of T-scan Novus computerized occlusal analysis. According to observations, occlusal contacts tend to exhibit the maximum contact distribution within the next 6-8 months after debonding of orthodontic appliances. If necessary, additional corrections are introduced into newly established occlusion with the use of the anteroposterior tooth contact adjustment procedure. The newly developed technique of anteroposterior occlusal contact adjustment can be successfully utilized to minimize post-treatment relapse in orthodontic patients.

Takeaway Notes:

- The newly developed APTCA technique can be utilized for both orthodontic patients and other dental patients exhibiting signs and symptoms of occlusal trauma
- The APTCA procedure clarifies the tooth-to-tooth interactions, which helps dental practitioner to deal with occlusal concerns in restorative treatment.
- The technique clarifies the causes of unwanted tooth movements after indirect restorations being placed, the causes of loosening of tight proximal contacts, etc

Biography

2007 - Graduation from the Odessa State Medical University

2007-2009 - Master of Science in Orthodontics, Odessa State Medical University

2009 - Specialist in Orthodontics, Odessa State Medical University

Since 2008 postgraduate education in lingual Orthodontics (2008 - Dr.Wiechmann «Incognito» Certification Course, Istanbul, Turkey),

2009 - short-term studying at the Munich University, Department of Orthodontics in Down-syndrome appliance fabrication. 2011- studying lingual Orthodontics laboratory procedure at Dr.Toshiaki Hiro Orthodontic office in Matsumoto, Japan. 2012 - studying lingual braces laboratory procedure at Mr.Peter Sheffield's office in Chiang-Mai, Thailand (TAD/BPD appliances). Since 2012 - starting working with the T-scan occlusal analysis system. During 2013-2016 providing training for Ukrainian doctors in lingual Orthodontics, basics of Orthodontics and T-scan occlusal analysis system use.

2016 - Active Membership in the European Society of Lingual Orthodontists

2016 - Participation in the 50th Anniversary Conference of Bioresearch, Milwaukee, USA

2016 - Pankey Institute postgraduate course in TMD management conducted by Dr.John Droter

Since 2016 - Opinion Leader in T-scan Novus (Tekscan) application in Ukraine

Scientific interest: T-scan occlusal analysis and orthodontic relapse; post treatment teeth movement and occlusion; chewing muscles, posture, occlusion and TMD.

Multidisciplinary therapeutic approach: About a diabetic child insulinodependant

Saoudi Fadila

Universite Saad Dahleb Blida, Algeria

In Algeria, even if medicine is free, but this does not exclude the expensive cost of oral health care, especially when it comes to multidisciplinary care. If added to that patients have systemic diseases, the issue is more complex. Often, practitioners are faced with the difficulty of working with the attending physicians, Which is made difficult, if not impossible, by the lack of cooperation of the patients themselves.

When we know that the inflammatory process at the origin of the development of periodontal diseases, as well as the evolution of the caries, necessarily lead to the loss of the dental organ and that if the process is not stopped one understands why their development Is more severe and more frequent in the diabetic subject than in the general population.

All this must make imperative the introduction of perfect hygiene before any multidisciplinary therapeutic management.

Therapeutic course, carried out in a diabetic child, is delivered with practitioners' major concern was to restore the altered occlusal function in a mouth where the stage of decay of the teeth was well advanced.

Biography

Professor SaoudiFadila completed her PhD in Periodontics from University of Algiers, Algeria in 1989, she worked as an assistant professor in University SaadDahlab of Blida, Algeria in 1996 and now working as a Professor in in the same University. She has published many papers in national and international journals, her area of interest includes Periodontitis.

Erosive oral lichen planus and its relevance to *Helicobacter pylori* infection

Xiaobing Guan* Ph.D&DDS, Yuanyuan Wang, Jiaqi Wang, Qian Ren
Beijing Stomatology Hospital, China

Background:

Oral lichen planus(OLP) is a chronic inflammatory disease, which belongs to precancerous condition by WHO's classification and erosive lesions of OLP is more likely to undergo malignant transformation by repeated stimulations in virtue of bacteria, fungi etc. *Helicobacter pylori* (Hp) infection in gastrointestinal tract is widely accepted as the major risk factor for atrophic gastritis, gastric ulcer and gastric cancer. Oral cavity has been proposed as another main reservoir for Hp. While Hp colonization could be detected in dental plaque, ulcer and saliva and erosive lesions of OLP has similar histopathological structure with ulcers in gastrointestinal tract, so we hypothesized that oral Hp may play a role in the pathogenesis of erosive OLP as that in the gastrointestinal tract and is correlated with the severity of erosive OLP.

Objective:

To investigate whether there is an association between oral Hp infection and the severity of erosive OLP.

Methods:

1st part: OLP patients (including erosive and non-erosive OLP) were consecutively enrolled into the clinical trial at the department of oral medicine, Beijing Stomatology Hospital. Erosive OLP patients were further divided into mild to moderate (erosive area 1cm²) and severe groups (erosive area >1cm²) according to the size of erosion. Diagnoses of OLP were confirmed by biopsy and clinical manifestations. Hp antigen tests (HPS) were used to detect Hp in the saliva. Positive results suggest the existence of oral Hp in contrast to the negative results.

2nd part: Erosive OLP patients with HPS positive were divided into two groups randomly. Patients in the control group were given medications while those in the experimental group were given medications plus supragingival scaling. The healing and recurring of erosion were recorded and HPS tests were performed in the follow-ups (2 weeks, 1 month and 3 months).

Results:

HPS results were positive in 17(34.00%) of the non-erosive OLP patients and 152(34%.33) of the erosive OLP patients (p<0.05), among which 34(43.59%) positive in the mild to moderate erosive OLP group and 118(41.40%) in the severe group (p<0.05). There were not any significant differences between oral Hp infection and erosive OLP.

After medication with/without supragingival scaling, the rates of HPS positive decreased to a certain extent with no significant differences between mild to moderate and severe erosive OLP groups (P>0.05). Indexes for healing and recurring also show no significant differences between these 2 groups (P>0.05).

Conclusions:

The present findings show that Hp might have played an etiological role in erosive OLP but was not related to the severity, healing and recurring of erosive lesions. Supragingival scaling could actually help reducing the Hp infection, and may contribute to the healing of erosive OLP indirectly.

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Takeaway Notes:

- The audience could get an understanding of oral Hp infection and the possible association between Hp and oral diseases.
- HPS tests are easily performed with high sensitivity and specificity in detecting oral
- Hp.
- The periodontal treatment including supragingival scaling could help keeping good oral health, which may be benefit for erosive OLP patients.

Biography

Education:

PhD&DDS, Oral Medicine, Capital Medical University, 2009

MDS, Oral Medicine, Capital Medical University, 2002

BDS, Stomatology, Capital Medical University, 1990

Scientific background:

As project manager:

1.Epigenetic regulation of epithelial-mesenchymal transition in oral leukoplakia and targeted exosome-mediated microRNA therapy.

Funded by National Natural Science Foundation of China.

2.Erosive oral lichen planus and its relevance to Helicobacter pylori infection. Funded by Beijing Municipal Science & Technology Commission.

Difficult cases and their clinical solution

Walid Odeh

Academic Specialized Dental Center, Jordan

I believe that an orthodontist is not only a specialist dentist; he must have knowledge and interesting in art as dentistry is not about teeth treatment but also aesthetic of the face to be a successful orthodontist because science has no end. In some clinical cases in our daily practice we might face bone deficiency to replace missing teeth with dental implants instead of doing second surgery and bone augmentation. We can be more conservative depending on orthodontic means such as extrusion of hopeless teeth in other cases we can use mini implants to adjust complicated orthodontic cases and surgical cases such as skeletal openbite or interocclusal space deficiency. This lecture for Implantologist, Orthodontist & General practitioner. In this lecture I will talk about clinical cases to show the interrelation between ortho, implant & aesthetic dentistry & aesthetic medicine solving clinical cases with no surgery. It's for specialist dentist & general practitioner.

Cases in the lecture

- 1st will cover extrusion of hopeless anterior centrals to correct bone level before replacing them with dental implant instead of bone augmentation.
- 2nd to gain more interocclusal space by intrusion of opposite posterior teeth.
- 3rd case to correct skeletal openbite by using mini implant instead of orthognathic surgery.
- 4th case using mini implant to align tilted teeth to provide space for implant or bridge
- 5th Some cases about gum smile treatment by mini implant & Botox beside some cases about aesthetic dentistry.

Biography

Dr. Walid Odeh has completed his BDS at age 26 years from Nisantas Oza Yuksek Okulu, Marmara University, Turkey. Beside that he has a master degree in Orthodontics from Baghdad University, 2000. He has a specialty expert in Implant Association \ Germany. He is a fellow of ICCDE (International College of Dental Education). He is a member of: ICOL (International Congress of Oral Implantologist), AAID (American Academy of Implant Dentistry, (Austrian, Turkish Jordanian & Egyptian Implant Association), European Esthetic Association, WFO (World Federation of Orthodontics), AOS (Arab Orthodontic Society), DGZI (German Implant Association), ADA (American Dental Association) and AAAM (American Academy of Aesthetic Medicine) as he is treating so many cases of TMJ disorder & gummy smile by Botox, beside he participating in many international conferences as a lecturer in many countries like USA, Germany, Jordan, Far East, Mallizyia, Taiwan, Hong Kong & so many Arab countries.

Prophylactic intervention for temporomandibular pain and dysfunction: A methodological study

Mejersjö Christina*, PhD, LDS, Saghafi Ellie, LDS
Sahlgrenska Academy, Sweden

The prevalence of temporomandibular disorders (TMD) symptoms has been found 7-25% in adolescents, and especially girls suffer frequently from TMD symptoms and headache associated with TMD, resulting in increased school absence and analgesics consumption, and an impaired quality of life. Clinical symptoms are few in children, but increases after puberty, and is higher in girls than boys.

The knowledge about risk factors and risk behavior for developing TMD symptoms has increased during the last decade and will be presented. The effect of preventive information regarding TMD symptoms is not known and ought to be studied, and, eventually, promoting prophylactic measures.

A study with the aim of developing and testing a program for prophylactic health information regarding TMD symptoms was performed and will be presented. Girls at two high schools, 16 years of age, with and without symptoms, were invited to a health information and relaxation training, in groups of 8-10 girls at two occasions, and 60 girls participated. Structured information about risk behavior and risk factors for TMD symptoms was given, and general relaxation was trained. A follow-up three month after the intervention revealed that the frequency of reported headache once a week or more declined, from 49% to 35% ($p=.002$), as did the use of chewing gum ($p=.002$). The conclusion was that prophylactic information to adolescent girls may influence the oral habits and the frequency of TMD symptoms. Further studies will show if it is possible also to decrease the incidence of TMD symptoms among adolescents.

Takeaway Notes:

- The impairment of oral health from TMD symptoms have a high incident, especially among adolescent girls, and the symptoms should be attended to and included in the dentists care.
- Increased knowledge about risk factors and risk behavior for development of TMD symptoms, motivates the dentist to notice the early TMD signs and symptoms of their patient's and together with the patient pay attention to habits and circumstances that could be influenced.
- The general practitioner can reveal risk factors and give prophylactic information.
- Preventive information can change harmful habits and behavior in adolescents.

Biography

Christina Mejersjö is working as a specialist and supervisor at the Clinic of Orofacial Pain of Public Dental Health, Gothenburg. She is a specialist dentist of Orofacial Pain and Jaw Function, and of Oral Prosthodontics, and has a broad experience in these fields from patient treatment, lecturing and research. Her thesis dealt with the "Long-term development after treatment of mandibular dysfunction and osteoarthritis", and her research is closely connected to the clinical situation and the patient diagnoses and treatment, especially concerning TMJ osteoarthritis, local and general relaxation, and the temporomandibular function among persons with muscle dystrophy.

Poster Presentations

International Conference on

Dentistry and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

Characteristics associated with successful dental treatment in children with autism spectrum disorder

Noah Turk, DMD, MS; Maria A. Levi-Minzi, PhD; RomerOcanto*, DDS, MS, MEd; Oscar Padilla, DDS
Nova Southeastern University, USA

Background:

Autism Spectrum Disorder (ASD) is a neurodevelopmental disability responsible for social, communicative and behavioral deficits. The prevalence of children diagnosed with ASD in the United States has more than doubled in the past two decades, from 1 in 150 to 1 in 68. Children diagnosed with ASD have a very high occurrence of certain comorbidities, such as developmental delay, intellectual disability and speech delay. Unmet dental needs remain high among children with special health care needs (SHCN), with 78% reporting the need for dental care within the last 12 months. Recent studies have focused on barriers to care for these patients; the child's behavior has been identified as a major barrier to dental care.

Objective:

This study was conducted to examine and provide an overview of characteristics of children with ASD undergoing dental care, specifically, an exploration of associations between patient demographic and health characteristics on the outcome of completing a cleaning.

Methods:

A retrospective chart review explored ASD patient demographics (including, but not limited to, ASD diagnosis, a variety of active therapies, comorbidities listed above, behavior and level of communication) and related them to successful dental treatments. Comparisons were made using t-test, bivariate and multivariate analyses.

Results:

Patients reporting non-verbal communication took more visits to complete the tasks (3.26 versus 2.64, $P=0.028$). Hispanic ethnicity [OR 0.073; (95% CI 0.017, 0.315); $P=0.000$] and parental lack of knowledge related to patient cooperation [OR 0.078; (95% CI 0.018, 0.344); $P=0.001$] were significantly associated with lower odds of completing the tasks.

Conclusion:

Educating dentists about key patient characteristics, including verbal/non-verbal communicative abilities, ongoing patient therapies, and cultural upbringings can potentially improve access to oral health care for children with ASD.

Overcoming barriers in oral health in later life

Alexander Schembri B.Ch.D(Hons),Dip.Ger,M.Ger,FICD
University of Malta, Malta

Collective and individual advancements in diverse societies and health-related services have resulted in a steady increase in populations with many elderly living longer lives. These achievements should be coupled with an improvement and maintenance of our elderly's health and associated quality of life.

Dentistry is also reflecting these trends with a larger number of elderly people retaining more of their natural dentitions. These outcomes are the results of advances in the various disciplines of dentistry with particular emphasis in the areas of population directed preventive measures and restorative oral care in all age cohorts.

However it is also observed that the elderly require more complex dental treatment in an attempt to maintain good oral health. These complicated dental challenges are further compounded by declining health, inequality in health services on a national and individual level, increasing social and environmental impairments, which together act as barriers for certain elderly patients in their drive to access oral health. The dental team should strive to identify such barriers, in order to help the elderly overcome them.

Takeaway Notes:

- The audience will be more aware of population ageing and its implications to dentistry.
- Be aware of the barriers that the elderly might face to access dental health
- Propose the possible ways how such barriers may be overcome.

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.

Novel fluoride re-chargeable dental composites for early-stage caries prevention

Agron Hoxha*, MEng, David Gillam BA, BDS, MSc, DDS, FRSPH, FHEA, Mangala Patel
PhD, MSc, BSc(Hons), Andy Bushby, PhD, BSc
Queen Mary University of London, UK

Objective: To study the uptake and release of fluoride ions repeatedly, from experimental composites incorporating layered double hydroxides (LDH), and determining structural changes in LDH powder, before and after fluoride uptake and after recharging, using powder X-ray diffraction (pXRD) and energy dispersive X-ray spectroscopy (EDS). Maintaining a low therapeutic level of fluoride in the oral environment to prevent early-stage caries is a necessity; dental composites incorporating LDH have the potential to address this.

Methods: Neat-LDH powder (1g/L) was allowed to absorb fluoride (0.08M sodium fluoride, NaF), and then released (deionised water, DW), followed by recharging (0.08M NaF), with each stage for 24 hours. Each solution was centrifuged, supernatant removed and the LDH residue was dried (37°C for 24 hours) and characterized (pXRD and EDS). Experimental dimethacrylate based resin discs (control, n=5) and incorporating 10wt% neat-LDH powder (n=5) were charged in 0.1M NaF for 48 hours. Fluoride was released in DW (5ml), which was replaced every 24 hours. Samples were recharged (x4) every 72 hours in 0.05M NaF (5min), over two weeks. All solutions were maintained at 37°C. Fluoride released was measured using a fluoride ion selective electrode (NICO2000, precision $\pm 2\%$).

Results: The incorporation of fluoride in LDH was confirmed with both EDS and XRD, which inferred that fluoride ions replaced chloride ions and an increase in 2 θ (XRD pattern [003]-plane), respectively. The latter indicated a reduction in the inter lamellar spacing within the LDH structure. LDH increased the amount of fluoride released from composite samples compared to the controls (0.12 ± 0.03 ppm and 0.04 ± 0.01 , respectively; $p < 0.05$). Fluoride release gradually decreased over three days until further recharging.

Conclusion: LDH on its own, and incorporated into an experimental composite, has the potential for caries prevention since it is capable of absorbing and releasing an adequate amount of fluoride, repeatedly overtime.

Takeaway 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 in tooth dental applications for the benefit of a slow ion or drug release. Allowing other faculties to expand research in this direction.
- The future use and choice of restorative materials e.g. Dentists and patients, may be altered to address the issue of a slow release rate of cariostatic ions.

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.

Relational continuity in oral health care: A qualitative study in a northern Quebec indigenous community

Stefanik Simard Lebel^{*1}, Richa Shrivastava¹, Yves Couturier², Felix Girard¹, Jill Torrie³, Elham Emami¹

¹Faculty of Dentistry, Université de Montréal, Quebec, Canada

²School of Social work, Université de Sherbrooke, Quebec, Canada

³Cree Board of Health and Social Services of James Bay, Quebec, Canada

Background: Relational continuity of care is an essential function of primary health care. This manuscript reports from the perspectives of Northern Quebec First Nations community and its primary health care providers regarding the barriers and facilitators of relational continuity of oral health care.

Methods: A qualitative approach was used to conduct a research study in Cree community of Northern Quebec. Purposeful maximum variation sampling and snowball techniques were used to recruit the participants. Onefocus group discussion and 12 individual interviews were conducted until saturation was reached. Thematic analysis was conducted and involved transcription, debriefing, codification, data display and interpretation. The consolidated criteria for reporting qualitative studies (COREQ) guidelines were used for reporting this manuscript.

Results: Two major themes emerged from the thematic analyses for both barriers and facilitators. Themes for barriers included impermanence and lack of effective communication and those for facilitators included culturally competent professionals and working across professional boundaries.

Conclusions and recommendations: Relational continuity needs to be supported by a global continuity strategy, based on a global health perspective and intersectoral public health interventions. These strategies can be promoted by encouraging inter-professional collaboration and by engaging of primary health care and oral health care teams and community workers. Furthermore, organizing cultural competency trainings can help with the retention of permanent professionals.

Takeaway Notes:

- Example of how qualitative research has its place in Dentistry and how it can concretely have an impact on policies.
- It could be inspiring to researchers or dentists trying to reach out rural and remote communities.
- Study methods could be applied to other qualitative studies.
- This study was made by an under graduated dental student, this presentation could motivate young professionals to take part in research studies.

Biography

Stefanik Simard-Lebel is a fourth year dental student from Montreal University, Canada. She has a special interest in public health dentistry and oral health disparities. While completing her DMD, she took part in a study conducted in a Northern Quebec Indigenous community. As a research trainee, she wrote an article and she finished first in the junior category of the CADR Student Award. She also presented her study at the IADR annual meeting in San Francisco in March 2017.

International Conference on Dentistry & Oral Health

September 14-16, 2017
Valencia, Spain

Medical emergencies in the dental Practice

Phil jevon
walsall healthcare nhs trust, UK

| MEDICAL EMERGENCY | SIGNS & SYMPTOMS | TREATMENT |
|-------------------|---|--|
| Adrenal crisis | <ul style="list-style-type: none"> •Collapse •Pallor •Cold & clammy skin •Hypotension and Dizziness •Vomiting & diarrhoea | <ul style="list-style-type: none"> •Airway Breathing Circulation-Disability Exposure •Call 999 •Lie flat •Oxygen 15 litres/min |
| Anaphylaxis | <p>Signs & symptoms (can vary) can include:</p> <ul style="list-style-type: none"> •Urticaria &/or angioedema •Flushing & pallor •Respiratory distress •Stridor, wheeze &/or hoarseness •Hypotension & tachycardia <p>Anaphylaxis likely:</p> <ul style="list-style-type: none"> •Sudden onset & rapid progression of symptoms •Life-threatening A&/or B&/or C •Skin &/or mucosal changes | <ul style="list-style-type: none"> •Airway Breathing Circulation-Disability Exposure •Call 999 •Oxygen 15 litres/min •Lie flat, elevate legs (if breathing not impaired) •Adrenaline 500 micrograms IM (0.5ml of 1:1000) •Repeat adrenaline at 5 minute intervals if no improvement <p>Paediatric doses of adrenaline:</p> <ul style="list-style-type: none"> < 6 yrs - 150 micrograms (0.15ml of 1:1000) 6-12 yrs - 300 micrograms (0.3ml of 1:1000) > 12 yrs - 500 micrograms (0.5ml of 1:1000) |

International Conference on Dentistry & Oral Health

September 14-16, 2017
Valencia, Spain

| | | |
|---------------------|--|--|
| Cardiac emergencies | <p>Symptoms can vary; commonly:</p> <ul style="list-style-type: none"> • Tightness, heaviness or pain in the chest • Pain may radiate to neck, jaw, shoulders, left arm & back • Pallor & sweating • Nausea/vomiting • Breathlessness | <ul style="list-style-type: none"> • Airway Breathing Circulation-Disability Exposure • Call 999 • Comfortable position (usually sitting up) • GTN spray 2 activations sublingual • Aspirin 300mg orally (crushed or chewed) (unless there is clear evidence that the person is allergic to it) • Ensure automated external defibrillator (AED) is immediately accessible (should it be required) as per Resuscitation Council UK guidelines <p>NB If history of angina: GTN & rest; where symptom is mild & resolves rapidly, calling 999 usually not necessary</p> |
|---------------------|--|--|

| | | |
|--------------------|--|--|
| Epileptic seizures | <ul style="list-style-type: none"> • Sudden collapse & loss of consciousness • Rigidity & cyanosis • Jerking movements of limbs • Noisy breathing • Tongue may be bitten • Frothing at mouth • Incontinence may occur | <ul style="list-style-type: none"> • Airway Breathing Circulation- Disability Exposure • Safe environment: prevent injury, do not put anything into mouth, do not restrain • Note timings of fit • Oxygen 15 litres/min • Once jerking movements cease: recovery position & check the airway <p>Prolonged convulsive seizures (5 minutes or more) or repeated seizures (3 or more in an hour):</p> <ul style="list-style-type: none"> • Midazolam or mucosal solution can be given by the buccal route in adults as a single dose of 10mg [unlicensed] <p>Depending on response to treatment, the person's situation and any personalised care plan, call 999 particularly if:</p> <ul style="list-style-type: none"> • Seizure is continuing 5 minutes after the emergency medication has been administered • The person has a history of frequent episodes of serial seizures or has convulsive status epilepticus, or this is the first episode requiring emergency treatment • There are concerns or difficulties monitoring the person's airway, breathing, circulation or other vital signs <p>Paediatric doses of buccal midazolam:</p> <p>1-5 years - 5mg 5-10 years - 7.5mg > 10 years - 10mg</p> |
|--------------------|--|--|

International Conference on Dentistry & Oral Health

September 14-16, 2017
Valencia, Spain

| | | |
|---------------|--|---|
| Hypoglycaemia | <ul style="list-style-type: none"> •Shaking/trembling •Slurred speech •Vagueness •Sweating and pallor •Blurred vision •Tiredness and lethargy •Confusion/aggression •Stroppy/moody •Unconsciousness | <ul style="list-style-type: none"> •Airway Breathing Circulation-Disability Exposure •Offer 15-20g fast acting glucose - see.g. 3-4 glucose tablets, glass of orange juice or glucose gel •Impaired consciousness or if patient is unable to swallow safely:- glucagon 1mg IM •Once consciousness returns, offer oral glucose •Call 999 if the patient goes unconscious •If able, measure blood sugar to confirm diagnosis Paediatric dose of glucagon: < 8 years of age or < 25kg: 0.5mg IM |
| Stroke | <ul style="list-style-type: none"> •Facial weakness: smile? mouth or eye-drooped? •Arm weakness: raise both arms? •Speech problems: speak clearly or understand what you say? •Time to call 999 | <ul style="list-style-type: none"> •Airway Breathing Circulation-Disability Exposure •Call 999 •Oxygen 15 litres/min •Nil by mouth |
| Syncope | <ul style="list-style-type: none"> •Feels faint/dizzy/lightheaded •Collapse & loss of consciousness •Pallor, sweating, slow pulse, low BP •Nausea/vomiting | <ul style="list-style-type: none"> •Airway Breathing Circulation-Disability Exposure •Lie flat, elevate legs & loosen tight clothing •Consider oxygen (not usually necessary) •If becomes unresponsive, check for signs of life •Once consciousness returns, offer glucose in water or sweet tea |

Photofunctionalization: A systematic review

Nagore Arroyo Lamas* – Dentist and PhD student in Medicine and Surgery, University of the Basque Country (UPV/EHU).

Iciar Arteagoitia Calvo – MD, DDS, PhD Associate Professor at the University of the Basque Country (UPV/EHU).

Unai Ugalde – Prof. of Electronic Instrumentation, PhD in Electronic Engineering, University of the Basque Country (UPV/EHU).

Progressive aging of titanium results in a reduction in biological activity, which could be reactivated by ultraviolet (UV) illumination in what is called photofunctionalization.

Objective: to make an update on photofunctionalization in titanium surfaces (disks and cylinders).

Method: systematic review.

Search strategy: a search is made in these electronic databases: TRIPDATABASE, PUBMED / MEDLINE, SCIENCE DIRECT, SCIELO, SCOPUS and COCHRANE PLUS. The articles were selected according to inclusion criteria by All Files, and were subsequently revised to eliminate duplicity.

Selection criteria: include experimental and observational studies analyzing hydrophilicity and osteoconduction by using photofunctionalization in titanium disks or cylinders at different UV wavelengths. The quality of the studies was evaluated following the criteria proposed by Caspe's reading sheets of criticism, and the recommendations proposed by the Scottish Intercollegiate Guidelines Network (SIGN).

Results: 26 studies were included. Photofunctionalization results in a change in the hydrophobic surface of a superhydrophile, transforming a bioenergy surface into bioactive and improving migration, proliferation and cell adhesion, especially on titanium surfaces with micro-nano hybrid topography (nanoscale nodules in microscale pits). A reduction in bacterial accumulation was observed on photofunctionalized titanium surfaces.

Conclusions: photofunctionalization with C-range ($\lambda \leq 280$ nm) UV illumination has shown an improvement in titanium surfaces.

Takeaway Notes:

- What photofunctionalization is about — a novel and promising procedure still under experimentation.
- The potential contribution of photofunctionalization to the everyday practice of the implantologist.
- A structured, condensed and up-to-date review of the main contributions and results in this field.

Biography

Graduated and master degree in Dentistry (Best academic record) (University of The Basque Country) (2011-2016).

PhD student of Medicine and Surgery (University of The Basque Country) (2016–present).

Nagore Arroyo Lamas focuses his clinical practice on general dentistry. He has published articles in national and international journals such as *Maxillaris Magazine* or *International Journal of Stomatological Prosthesis*. Maintains full-time clinical practice in Bilbao.

In vitro evaluation methods on adaptation of fixed dental prosthesis

Hyunho Lee, Du-Hyeong Lee, Kyu-Bok Lee*

Kyungpook National University, Republic of Korea

Clinically, the fit of fixed prosthesis is an essential element for successful restoration. The fit of prosthesis is largely classified into marginal fit and internal fit, and various methods to assess these have been introduced including microscopic margin measurement, cross-sectional measurement, silicone replica technique, 3-dimensional scanning data superposition, weight technique and micro CT scanning. Thus, this study is aimed at proposing a more convenient and accurate measurement method of fits in a digital environment by comparatively analyzing the advantages and disadvantages of each known method based on existing literature.

Biography

Professor, Department of Prosthodontics, School of Dentistry, Kyungpook National University
Director of the Department of Prosthodontics, Kyungpook National University Hospital
Director of the Advanced Dental Device Development Institute, Kyungpook National University

Color stability of heat-polymerized acrylic resins with incorporated Ag nanoparticles

Perihan Oyar, Assoc Prof, DDS, PhD, Hacettepe University, Turkey
Farzin Asghari Sana, DDS, PhD, Hacettepe University, Turkey
Nuran Özyemişçi-Cebeci*, DDS, PhD, Hacettepe University, Turkey
Rukiye Durkan, Assoc Prof, DDS, PhD, Kocatepe University
Caner Öztürk, DDS, PhD, Mustafa Kemal University

Some nanoparticles have been added to polymethyl methacrylate (PMMA) for antimicrobial properties; however, they can affect color stability of acrylic resin. The aim of this study was to investigate the effect of Ag Nanoparticles on color changes of heat-polymerized acrylic resins. PMMA specimens (n=10) containing different sizes (15nm, 45nm) of Ag Nanoparticles (concentration of 0.1%) were prepared, along with a control group with no Ag Nanoparticles. Fabricated specimens were stored in distilled water at 37°C for 50±2 h to simulate the oral environment. The color was evaluated according to the Commission Internationale de l'Eclairage (CIE) CIEL*a*b* color system. The comparison of L, a, b values was made at the level of significance of $p < 0,05$ using one-way ANOVA and post hoc multiple comparisons test (Tukey HSD) were used to identify any statistical differences between groups. After addition of Ag Nanoparticles to PMMA, L * and b * values increased, and a * values decreased. The present study also found that the addition of large-sized nanoparticles (40NM) lead to higher values for L * and b *. According to the results obtained, the difference between the values of L, a, b and among the groups was found to be statistically significant ($p < 0,05$). Delta e value was found to be 2.51 between group A and B, 1.53 between group A and control group, and 4.03 between group B and control group. Group A is clinically acceptable while group B is slightly above the clinically acceptable value. According to the results of this study, color change after addition of Ag Nanoparticles to heat-polymerized acrylic resins is not determined in group A, but determined in group B (slightly above the clinically acceptable value). The addition of Ag Nanoparticle and size of nanoparticle did not significantly affect the color stability of PMMA. Accordingly, adding a suitable concentration of Ag Nanoparticle to PMMA may be used in clinical practice.

Takeaway Notes:

- They will learn that they can be disinfected by adding acrylic resins a nanoparticles used in total prosthesis construction.
- Learn how nanoparticles can be incorporated into the acrylic resin.
- How nanoparticles can be incorporated into the acrylic resin. They will learn that this process does not change the color of the acrylic resin significantly.
- This will ensure that the prosthesis remains hygienic for a longer time
- This procedure will provide a superior feature of the prosthesis.

Biography

I'm a lecturer at Dental Prosthetics Technology Program, Vocatioanal School of Health Services, Hacettepe University, Turkey. I'm graduated from Faculty of Dentistry of Hacettepe University in 2003. I received my PhD in Prosthodontics from Gazi University in 2010.

I'm 40 years old, married, have a 2-years old daughter.

Epigallocatechin gallate inhibits acceleration of osteoclastogenesis by TNF α in vitro

Takashi Ukai*, Yasunori Yamashita, Hiroki Kobayashi, Mika Oyama, Atsutoshi Yoshimura, Yoshitaka Hara
Nagasaki University, Japan

Aim:

Tumor necrosis factor (TNF) α plays an important pathogenic role in the inflammatory bone resorption and accelerates osteoclastogenesis induced by receptor activator of NF κ B ligand (RANKL). Epigallocatechingallate (EGCG), one of green tea catechin components, inhibits osteoclastogenesis differentiated by RANKL. However, it is not clear an influence of EGCG for the acceleration of osteoclastogenesis by TNF α in vitro. In this study, we examined an effect of EGCG for acceleration of osteoclastogenesis by TNF α in the presence of RANKL.

Materials and Methods:

Osteoclastogenesis assay using bone marrow macrophages (BMMs) was performed in this study. BMMs from CB17 mice were stimulated at the same time by TNF α and RANKL, or by TNF α after 48h pre-stimulation with RANKL. The stimulated cells were stained with tartrate-resistant acid phosphatase (TRAP) for identification of osteoclasts. To examine the effect of EGCG to the acceleration by TNF α , EGCG were added together with TNF α . Furthermore, osteoclastogenesis inhibitory cytokines such as interleukin-4 (IL-4), interferon γ (IFN γ) or osteoprotegerin (OPG) were added the culture instead of EGCG.

Results:

TNF α accelerated osteoclastogenesis induced by RANKL. The acceleration of osteoclastogenesis by TNF α after 48h pre-stimulation with RANKL was stronger than same time stimulation by TNF α and RANKL. The acceleration was strongly inhibited by addition of EGCG both condition of co-stimulation and pre-stimulation with RANKL. Osteoclastogenesis stimulated at the same time by TNF α and RANKL was clearly inhibited by IL-4, IFN γ or OPG. However, the osteoclastogenesis was only slightly inhibited when those cytokines were added with TNF α after 48h pre-stimulation with RANKL.

Discussion:

This study indicated EGCG could inhibit osteoclastogenesis induced by RANKL and TNF α . Furthermore, EGCG could inhibit TNF α -inducing osteoclastogenesis from BMMs being 48h pre-stimulated with RANKL unlike other inhibitory cytokines. These results show usefulness of EGCG as therapeutic reagents for prevention and treatment of inflammatory bone loss related with TNF α .

Central giant cell granuloma causing root resorption: A Case Report

Bilgun Cetin * Fatma Busra Dogan, Faruk Akgunlu
Selcuk University, Turkey

Introduction: Giant cell granulomas of jaws, as peripheral giant cell granulomas and central giant cell granulomas occur in two forms. The peripheral form occurs in gingiva or oral mucosa while the central form occurs in bones. Giant cell lesions are reported commonly in females and in first two decades of life. Central giant cell granuloma is a benign, aggressive or nonaggressive neoplasm composed of multinucleated giant cells that almost exclusively occurs almost exclusively in the jaws though extra gnathic incidence is rare. The radiological appearance of central giant cell granuloma is not specific, it can be confused to the brown tumor, fibrous dysplasia, aneurysmal bone cyst or other fibro osseous lesions.

Purpose: The aim of this study is to present a case with central giant cell granuloma which is a relatively rare benign neoplasm or intraosseous lesion of jaws.

Patient and Materials: 25 year old female patient referred to our clinic because of having mobile teeth and a palatal swelling. There was no other complaint including pain too. After taking panoramic radiograph we saw there was a unilocular radiolucent and well defined lesion extending from maxillary right first incisor tooth to maxillary right first molar tooth and this lesion almost completely resorbed the roots of adjacent teeth. Although the lesion was look like an odontogenic cyst there was a palpable hard swelling in expansive palatal region during the clinic examination. Tomography imaging showed the bone expansion.

Results: It was determined that the lesion of excisional biopsy made in the patient was histopathologically central giant cell granuloma.

Conclusion: Central giant cell granuloma (CGCG) is an uncommon, benign, proliferative, pathological condition accounting for less than 7% of all benign lesions of the jaw. The lesion most commonly causes asymptomatic bone expansion therefore panoramic radiography should be taken during examination for early diagnosis of intraosseous lesions and tomography can be more useful for differential diagnosis and also correct determining border lines of lesion.

Takeaway Notes:

- Clinical and radiographic appearance of central giant cell granuloma will be presented and differential diagnosis will be made from other lesions. Useful information about the development of the lesion will be given.
- Panoramic and tomographic images will be helpful to make the differential diagnosis with other lesions and appearance of the lesion to the audiences.
- It will be advised to always do radiographic examinations to colleagues by mentioning the importance of imaging in dentistry.

Biography

Bilgun Cetin was born in Gurun (a town of Turkey) in 1987. She graduated from Ankara University Faculty of Dentistry in 2012. She began post-graduate education at Selcuk University in 2014. She is still continuing her education as a post-graduate student in Oral And Maxillofacial Radiology Department.

The low-level laser therapy in the prevention of oral mucositis in pediatric cancer patients at Hospital da Criança de Brasília José Alencar

Keyse Loyanne Batista da Silva*, DDS, MSc, Talita Rolim Felicio da Costa, DDS; Gerlúdia Araújo Rodrigues DDS, MSc.
Children's Hospital of Brasília, Brazil

The oral mucositis (OM) manifests in more than 60% of patients undergoing chemotherapy, impacting their quality of life, increasing morbidity and mortality rate. Therefore, it is important establishing a suitable protocol for the treatment and also the prevention of OM. Low-level laser therapy (LLLT) is an effective method of prevention, but there is no consensus regarding an appropriate dosimetry. This research objective was to verify effectiveness of preventive laser in children undergoing treatment for acute lymphoblastic leukemia (ALL) at the Hospital da Criança de Brasília José Alencar (HCB). While in hospital care, patients who use Methotrexate ($>1\text{g/m}^2$), will receive application of LLLT in order to prevent OM, starting at a day after the beginning of the cycle, with at least three consecutive applications in the same week. They were selected and distributed in two groups of 22 patients. G1: It was applied an energy density of 2J/point at an approximate distance of 1 cm, touching the tissue during 2s. G2: It was applied an energy density of 2J/point at a distance of 2 cm between points, touching the tissue during 2s. Patients returned on the 8th day to evaluate their oral cavity. Statistical analysis was performed by using SSPS Statistics. During years 2012-2014 patients diagnosed with ALL, 37.68% had OM manifestation of varying degrees during chemotherapy. Yet in 2015 and 2016 patients allocated in G1, 88.5% showed no signs of OM and G2 92.9% also showed no signs of OM. It was concluded that the preventive use of LBP has been beneficial, and that irradiated patients in less points (G2) had better answer. And those who showed predisposition an OM, had less severe form. The adoption of an appropriate protocol of the preventive use of LBP, and motivation of oral hygiene and early search for a dental treatment led to a scenario of nonexistence of severe OM manifestations in pediatric patients treated at HCB.

The study draws attention to the importance of technological advances, the new treatment resources in the use of laser therapy in hospitalized patients, as well as the multiprofessional and humanized care that welcomes the individualities of each patient, helping him to live more and better. The dental intervention evidences an optimization of the antineoplastic treatment, avoiding interruptions and contributing to a better quality of life of the individuals.

Biography

Graduated in Dentistry from Universidade Católica de Brasília - UCB. Specialist in Pediatric Dentistry by the Brazilian Association of Dentistry ABO-DF, and in Multidisciplinary Pediatric Oncology by the Israelite Institute Albert Einstein. Master in Health Sciences, with emphasis in Pediatric Dentistry by the University of Brasília - UNB. Currently Technical Supervisor of Dentistry at Children's Hospital of Brasília José Alencar.

Validity and reproducibility of visual inspection ICDAS II for the detection of caries lesions: A systematic review

Julissa Dulanto Vargas ^{*1}, Maynor Carranza Samanez ¹, Luis Rojas Zumaeta ²

¹Ph.D. students in Odontology Sciences at Complutense University of Madrid, Spain.

²Student in Specialization in Oral Rehabilitation at San Marcos National University, Peru

Objective: The study aims to evaluate the relevance of the literature on validity and reproducibility of International Caries Detection and Assessment System (ICDAS II) for detection of carious lesions.

Methods: An electronic and manual search were conducted based on the question focus of interest, using PubMed and Mesh. Abstract titles and filtered according to criteria that included in vitro studies caries lesions analysed ICDAS II against a histologic gold standard. Aspects related to reproducibility, validity, predictive values and probability calculus, were analysed.

Results: 23 of 535 articles identified initially included. Highlights of selected studies were recorded and evaluated in structured tables showing positive values and negative predictive value intra-examiner agreement, inter-examiner, correlation ICDAS II versus histological criteria, sensitivity, specificity, accuracy, area under the curve, with its prevalence and calculation of positive and negative likelihood were recorded and calculated.

Conclusion: The evaluation of results of validity and reproducibility also prediction and probability calculation, it is possible to suggest that ICDAS II can be used as detection system, especially for detection of carious lesions in enamel and dentin surfaces occlusal, both deciduous and permanent. The limited number of studies in proximal sites is inconclusive results on ICDAS II.

Takeaway Notes:

- The validation criteria for suspected caries lesions are explained.
- Clinically help analyze probabilities of subjects who have caries lesions after analyzing with ICDAS.
- Information is projected on predictive values and likelihood ratios that contribute to preventive therapy.

Orthopedic-orthodontic care in patients with cleft palate lip

M.O. Luz Veronica Rodríguez López*, M. en S.P. Rosa Maria Bulnes López, C.D.E. Mario Armando de la Cruz Acosta, C.D.E. Emmanuel Bocanegra Cornelio, C.D.E. Norma HernandezHernandez
Autonomous University of Tabasco, Mexico

The cleft lip and cleft palate are congenital craniofacial malformations, derived from the lack of union between the facial processes. This malformation occurs during embryonic development from the sixth to the tenth week of intrauterine life. They are common defects that produce an abnormal facial appearance and speech difficulties, functional, psychological and esthetic commitment, derived from the malformative condition. The Autonomous Juárez University of Tabasco, Mexico, through the orthodontic postgraduate report that, the patients with cleft lip and cleft palate, who attended at the dental specialties clinic and surgical journeys for this malformation, 31% presented cleft lip and a complete left unilateral palate, with a greater predominance in males and 29% in females. Preoperative orthopedics is an effective treatment in patients with cleft lip and cleft palate, which if is performed early can achieve favorable results, improving the quality of life of patients. Orthodontic care in patients with cleft lip and cleft palate aftermath in the public health sectors are limited, and the most vulnerable population is generally low-income, which is why the orthodontic specialty of the Autonomous Juárez University of Tabasco, represent an alternative for the attention of the vulnerable population.

Takeaway Notes:

- To know the incidence that is handled worldwide
- To know the probable etiological factors.
- To apprehend a protocol proposal in pre-surgery orthopedic care.

Biography

- Stomatology Degree 1993-1998 Benemerita Autonomous University of Puebla
- Master's Degree in Orthodontics 2000-2003. Benemerita Autonomous University of Puebla
- Investigator professor full time, Profile PRODEP Autonomous Juárez University of Tabasco 2013-2017
- Academic coordinator. Postgraduate of Orthodontics Autonomous Juárez University of Tabasco 2013-2016
- Clinical Lip Palate Responsible of the Postgraduate of Orthodontics Autonomous Juárez University of Tabasco. 2015-2017.

Comparison of different methods for measuring flow properties of impression materials

H.S. Kim*, Ph.D., H.R. Song, J.H. Lee, S.H. Yu, Ph.D., C.W. Park, Ph.D.
National Institute of Food and Drug Safety Evaluation, Republic of Korea

The aim of this study is to compare different methods for measuring flow properties of impression materials.

The flow properties were measured by shark-fin test and consistency test. Twelve addition silicone impression materials (four commercial products each with heavy, medium, and light body material) and two agar impression materials were used in two different methods ($n=10$ per material and method). Shark-fin test was performed using a shark-fin testing apparatus (3M ESPE, Seefeld, Germany). A weighted metal cast was suspended above a cup of impression material. The cast was dropped into the impression material, which displaced the material and caused it to flow into a triangular notch within the cast, creating a "shark fin." Consistency test was determined according to ISO 4823 (2015). The data were statistically analyzed by correlation analysis and two-way ANOVA with Tukey test ($p=0.05$) using PASW 18.0 (SPSS Inc., Chicago, U.S.A.).

Good correlation was found between the shark-fin test and the consistency test ($R^2 = 0.587$, $p = 0.000$). Strong correlation was found between the methods in addition silicone impression materials ($R^2 = 0.915$, $p = 0.000$), however, correlation was not found in agar impression materials ($R^2 = -0.249$, $p = 0.145$). In detail, good and strong correlations were found in addition silicone materials with each consistency type (heavy body: $R^2 = 0.368$, $p = 0.019$, medium body: $R^2 = 0.755$, $p = 0.000$, light body: $R^2 = 0.865$, $p = 0.000$) and mild correlation was found in three commercial addition silicone products. There were significant differences among the impression materials and test methods.

Based on the results of this study, shark-fin test could be substituted for consistency test in measuring flow properties of addition silicone impression materials or one of the options for them.

Takeaway Notes:

- Simpler and clearer method than consistency test
- One of the optional methods for measuring flow properties of addition silicone impression materials
- Further studies need to be performed to analyze the correlation with other properties of impression materials

Biography

- Dept. of Dental Science (Dental materials). Ph.D.

- Scientific officer, Researcher and Reviewer for Medical device revision of Ministry of Food and Drug Safety (National Institute of Food and Drug Safety Evaluation)

Role of photofunctionalization on Ti implant surface for osseointegration

In-Sung Luke Yeo*, D.D.S., M.S.D., Ph.D., Seoul National University

Jung-Yoo Choi, D.D.S., M.S.D., Ph.D., Seoul National University

Taek-Ka Kwon, D.D.S., M.S.D., Ph.D., St. Vincent Hospital

Photofunctionalization on Ti implant surface is known to increase the hydrophilicity of the surface, leading to accelerated bone response to the surface. The aim of this pilot study was to evaluate the photofunctionalization effects for osseointegration in vivo. The rabbit tibia model was used. Each rabbit received four implants; one experimental and one control implant were placed at each tibia. The implants used in this study were 4.0 mm in diameter and 7 mm in length (Point Implant, Co., Seoul, Korea). The surfaces of four blasted implants, the experimental group, were irradiated with the ultraviolet C ray. Those of the remaining four blasted implants without irradiation served as control. After two weeks of implant insertion, the rabbits were sacrificed and the tibial bones were removed en bloc. The undecalcified specimens were prepared for light microscopic inspection. Bone-to-implant contact ratio (BIC) was measured for histomorphometry. Each measurement was performed at the best consecutive three threads. The Wilcoxon signed rank test was used to find any significant difference between the groups at the level of significance of 0.05. The mean BICs were 52.4% (10.5%) for the control group, and 44.8% (4.1%) for the experimental group. No significant difference was found in BIC between the groups. Photofunctionalization to increase the hydrophilic property of an implant surface seems to play an adjunctive role in the biologic responses while hydrophilicity is known to contribute to faster bone healing around an implant. Other surface characteristics including surface topography are considered to be more important although further investigations are definitely required.

Takeaway Notes:

- Through this poster presentation, the audience will:
- know how to use the rabbit tibia model to evaluate an implant surface.
- understand some histomorphometric data in in vivo studies of implants.
- use these data to expand their researches about bone-implant interfaces.

Biography

Dr. In-Sung Luke Yeo has served as a dental officer (captain) at Special Forces Commands in the Korean Army for 3 years. He got his Ph.D. in biomaterials, in vivo 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. And Dr. In-Sung Yeo is now an Associate professor at the same university..

Physical and histochemical properties between porcine and human auricular cartilage

Hyeokjae Kwon* M.D., Hyunwoo Kyung M.D., Seung Han Song M.D., Joohak Kim M.D., Sang Ha Oh M.D., Ph.D. NakHeon Kang* M.D., Ph.D.
Chungnam National University Hospital, Korea

This is an important paper reporting the Physical and Histochemical Properties between Porcine and Human Auricular Cartilage. This study provides you that pig ear cartilage could be a useful material for the graft. Details are below.

Background : Recent studies using the pig tissue and organ as material of the xenografts progressing very actively. In this study, we analyzed the characteristics of porcine and human auricular cartilages, and evaluated the possibility of using as a graft substitute.

Method : The weight change of each cartilage was measured by addition of collagenase to determine degree of collagen degradation. The porcine and human auricular cartilages were compared by histological examinations; hematoxylin& eosin (H&E) staining and keratin sulfate, chondroitin sulfate, collagen II, and hyaluronic acid immunohistochemical (IHC) staining. After sterilization with gamma irradiation, glycosaminoglycan(GAG) assay was undergone, and cytotoxicity test and proliferation test were performed.

Result : After collagenase treatment, the weights of cartilages are gradually decreased to an average of 19.26% and 31.65% after 15 days, respectively. In histologic examinations, porcine and human auricular cartilages were covered with perichondrium, and chondrocytes and chondroblasts were observed as cellular components. In IHC staining, we confirmed that extracellular matrix (ECM) mainly composed of collagen II, keratin sulfate, chondroitin sulfate, and hyaluronic acid. The amount of GAGs in porcine ear cartilage was maintained about 70.1% even after sterilization. There was no toxicity to the cells, and it did not influence the cell proliferation.

Conclusion : Physical and histochemical properties between porcine and human auricular cartilage were very similar. The porcine cartilage was mostly made up of collagen. ECM was mainly composed of collagen II, keratin sulfate, chondroitin sulfate, and hyaluronic acid. After sterilization, the amount of GAGs was maintained about two thirds, and there was no cytotoxicity and disturbance of cell proliferation. Therefore, porcine auricular cartilage is thought to be used as an alternative graft material.

Figure 1. Histological examination. Left: porcine, Right: human. (A) It was covered with perichondrium, and consisted of chondrocyte, chondroblast, and nest cell (H & E). (B) keratan sulfate, (C) collagen II (IHC stain). Keratan sulfate and collagen II area evenly distributed relatively large amounts. (D) chondroitin sulfate (IHC stain). Chondroitin sulfate was mainly distributed on the outer edge. (E) hyaluronic acid (IHC stain). Hyaluronic acid was evenly distributed, but the amount was less.

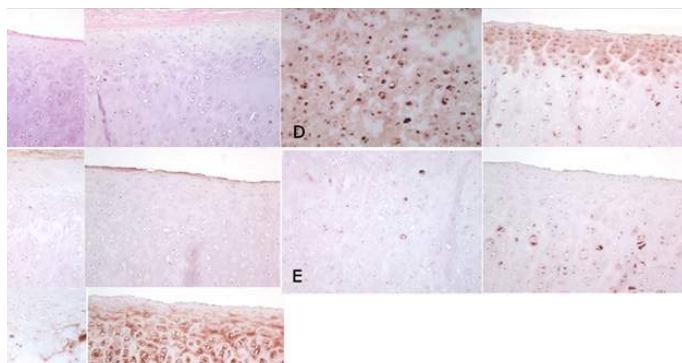


Figure 2. Weight changes after collagenase application. The weight of collagen was reduced to 19.26% and 31.65%, respectively. There was no significant change in collagen weight after 168 hours

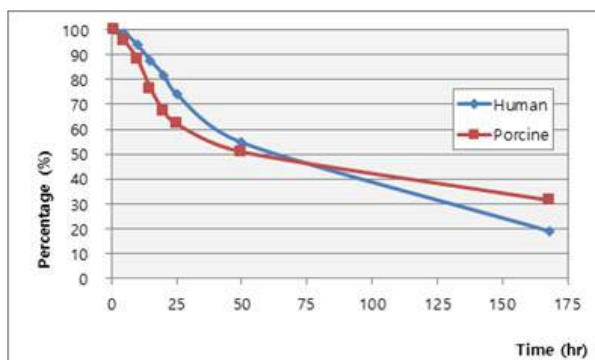


Figure 3. GAGs assay. After sterilization, the amount of GAGs was maintained to 69.14%.

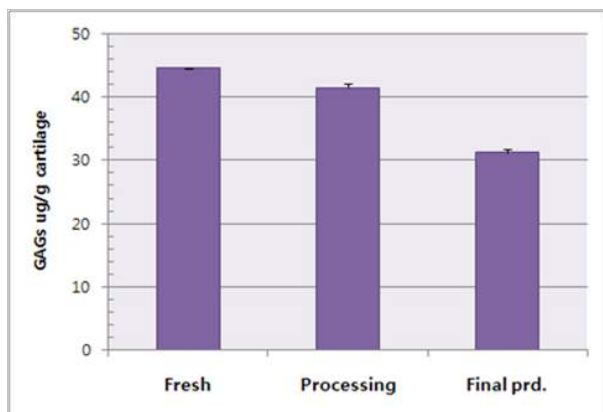
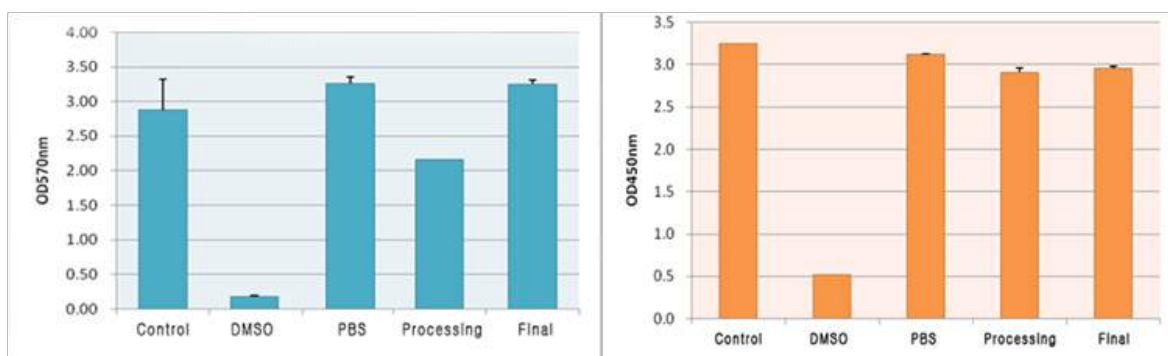


Figure 4. Cytotoxicity test (Left) and proliferation test (Right). After sterilization, there was no cytotoxicity and disturbance of cell proliferation.



International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Takeaway Notes:

- This study provides you that pig ear cartilage could be a useful material for the graft.
- Physical and histochemical properties between porcine and human auricular cartilage were very similar.

Biography

Hyeokjae Kwon is a resident of plastic and reconstructive surgery department of Chungnam National University Hospital. He graduated from Chungbuk Science High School. And he received his BS in Computer Science from KAIST and his Master's Degree from Chungnam National University Medical School. He is interested in various graft substitutes and has made great efforts in basic and clinical applications.

B.A. Computer science, KAIST, 2010.2

M.D. Medicine, Chungnam National University, 2014.2

Intern training in Chungnam National University Hospital, Daejeon, Korea, 2014.3~2015.2

Resident of plastic and reconstructive surgery, Chungnam National University Hospital, Daejeon, Korea, 2015.3

Nakheon Kang is a professor of plastic and reconstructive surgery department of Chungnam National University Hospital. And he received his B.S. & Ph D in medicine from The Catholic University of Korea. He is interested in various graft substitutes and has made great efforts in basic and clinical applications.

2010 – 2016 Director, Accreditation & Certification Committee

The Korean Society of Plastic and Reconstructive Surgery

2014 - 2016 President, Korean Academic Association of Facial Trauma Surgeons (KAFTS)

2015 - Present Director, Executive Committee, Korean Cleft Palate-Craniofacial Association (KCPCA)

2016 – Present Director, Ethics Committee, The Korean Society of Plastic and Reconstructive Surgery

Board certificate

Korean Board of Plastic and Reconstructive Surgery, March 1994

Keratocystic odontogenic tumour: A case report

Dila Berker Yıldız*, Zeynep Betül Arslan, Fusun Yasar
Selcuk University, Turkey

Purpose: The purpose of this study is to present a case with keratocystic odontogenic tumour which is a relatively rare benign neoplasm.

Methods and Materials: 27 year old male patient referred to our clinic because of an intraoral swelling of posterior mandible. There was no other complaint and finding except for the swelling. During the clinic and radiographic examination we saw that there was a multilocular radiolucent lesion extending from mandibular right third molar tooth to mandibular ramus. As a result of the tomography was showed that expansion the bone of the keratocystic odontogenic tumour.

Results: It was determined that the lesion of the biopsy made in the patient was histopathologically keratocystic odontogenic tumour. Primarily described by Philippsen in 1956 the odontogenic keratocyst was reclassified as Keratocystic Odontogenic Tumour by the The World Health Organization (WHO) in 2005 and is defined as a benign intraosseous tumour of odontogenic origin with a characteristic lining of parakeratinized stratified squamous epithelium.

Conclusion: The tumor may not be symptomatic until it expands to the bone. Therefore, panoramic radiography is important for early diagnosis and should be supported by tomography for detailed examination of the tumour.

Takeaway Notes:

- Early detection is important because keratocystic odontogenic tumour is a benign neoplasm with high growth pattern therefore our presentation will help to early diagnosis of keratocystic odontogenic tumour.
- When an apical lesion or swelling is seen rare lesions in the differential diagnosis should also be considered. Panoramic and tomography can help to distinguish diagnosis of some lesions. The audience should use an imaging method like panoramic during the examination.

Biography

Dila Berker Yıldız was born in Osmaniye (a city of Turkey) in 1989. She graduated from Selcuk University Faculty of Dentistry in 2012. She began post-graduate education at the same university in 2016. She is still continuing her education as a post-graduate student in Oral And Maxillofacial Radiology Department.

Publications in the clinical effectiveness bulletin – the need for improvement

Dean R^{*1}, Seehra J² DFT

West Midlands;¹ King's College London²

Objective: To investigate the types and methodology of audits published in the Clinical Effectiveness Bulletin (CEB).

Design and setting: A retrospective audit carried out on all audits published in the CEB between July 2001 to May 2016.

Gold standard: Audits to have a complete cycle (at least two cycles and a re-audit planned), with the methodology and evidence base for reported standards clearly stated.

Target: 100% audits to be in accordance with the gold standard.

Materials and method: Full text articles of audits were retrieved from the British Orthodontic Society website. Literature reviews were excluded. Data was extracted using a pre-specified data collection form. Descriptive statistics were employed.

Results: 355 audits from 23 CEB issues were identified and assessed. 46% of audits were retrospective, 37% prospective and 17% being unclear. 63% of audits had standards based upon high levels of evidence. However, 5% failed to state any standard and 23% did not state a clear basis for the standards. 80% of audits only completed one cycle and 20% completed two or more cycles. Only 6% of audits were re-audits. 24% of audits did not state plans for a re-audit. The South-East reported the highest number of audits (22%). The most popular audit topic was focused on treatment.

Conclusions: There is variation in both the types and methodology of audits published in CEB. The value of single cycle audits based on low-level standards is limited. To improve both clinical practice and effectiveness, multi-cycle audits based on robust standards are desired.

DAY 3

Speakers

International Conference on

Dentistry and Oral Health

September 14 - 16, 2017 | Valencia, Spain

ICD 2017

Sessions on: Orthodontics and Dentofacial Orthopedics | Dentomaxillofacial Radiology

Session Chairs

Peter Foltyn
St Vincent's Hospital
Australia

Ali A. Razooki Al-Shekhli
Fujairah Campus
UAE

Session Introduction

- Title: The buccal fat pad free graft; A new free fat tissue graft in the oral cavity**
Fares Kablan, Bar Eillan University, Israel
- Title: The dilemma of the retained lower second deciduous molars in the management of congenitally missing lower second premolars**
Khaled Khalaf, King Faisal University, Saudi Arabia
- Title: Surgical and prosthetic details in anterior rehabilitation: Minimally invasive intervention in aesthetic regions**
Eduardo Sorgi, Sao Paulo State University, Brazil
- Title: Recent Periodontology innovations emphasis on a study of novel bone grafts**
Ashar Jamelle, Fatima Jinnah Dental college, Pakistan
- Title: State of the art on immediate implantation and immediate loading in the aesthetic zone**
Abdulgani Azzaldeen, Alquds university, Israel
- Title: MRI-based determination of occlusal splint thickness for temporomandibular joint disc derangement: A randomized controlled clinical trial**
Ayman Hegab, AL-Azhar Univeristy, Qatar
- Title: A little bit of psychology**
Nuran Ozyemisci-Cebeci, Hacettepe University, Turkey
- Title: Diagnostic efficacy of cone beam computed tomography(CBCT) in impacted maxillary canine: Systematic review**
Hassan Ahmed Assiri, King Khalid University, Saudi Arabia
- Title: Evaluation of vertical measurements of molar teeth regions on panoramic radiographs obtained by dry skull by using different positions**
Bilgun Cetin, Selcuk University, Turkey
- Title: New bone grafting technique for soft tissue repositioning and radicular and / or implant bone defect replacement**
Samuel Tacher Levy, La Klinika, Mexico
- Title: Investigating the effect of handedness on the dental caries pattern, gingival index and plaque index in 6-10 years old children**
Saeedeh Mokhtari, Tehran University of Medical Sciences, Iran
- Title: Social Determinants in access and dental care for pregnant women**
Jairo Corchuelo Ojeda, University of the Valley, Colombia
- Title: Simplify impression techniques for edentulous patients**
Abdulrahman Almalki, Umm Al-Qura University, Saudi Arabia
- Title: Periodontal disease and obesity in adults. A review of the available evidence**
Andreas Chatzipantelis, Cardiff University Dental Hospital, United Kingdom

The buccal fat pad free graft; a new free fat tissue graft in the oral cavity

Fares Kablan DMD, BsC. Maxillofacial surgeon

The Baruch Pade Medical Center, Bar Eillan University, Israel.

Soft tissue grafting is an extremely versatile procedure that has many uses, and it is a common procedure in the oral cavity. Different types of soft tissue shortages are found, and the most common is related to the teeth, dental implants, bone augmentations, gingival recessions and different soft tissue defects.

Different techniques have been described to reconstruct deficient soft tissue volume and quality, and includes: Free gingival grafts, connective tissue grafts, tissue expanders, distraction tissue genesis, skin grafts,acellular dermal matrix allografts, tissue-engineered products, repositional flaps, roll flaps, and different intraoral pedicled grafts.

The concept of transplanting autogenous fat as a free graft is well documented in cosmetic surgery. The free fat tissue graft (FFG), that is harvested from the BFP (BFFG), is a new soft tissue graft in dentistry. The BFFG was first introduced by me as a clinical innovation at the 26 annual meeting of the academy of osseointegration in Washington DC 2011. Kablan and Laster in their report(2012), discussed the harvesting technique, the clinical and histological healing of the free fat graft in the oral cavity.

The BFFG can be used in different clinical applications in the oral cavity that includes; bone augmentation procedures, socket preservation, gingival recessions, ridge deformities, flappy ridge, around dental implants, peri-implant lesions, and in reconstruction of different areas after resectionof oral lesions.

The easy and fast access to the BFP,the nice graft volume that may obtained, the minimal morbidity of the donor site, the manipulation of the BFFG at the recipient site, and the fibrous healing of the BFFG, make the BFFG an extremely attractive soft tissue graft in the oral cavity.

At this meeting I will present the technique of the BFFG and its clinical applications. The clinical and histological healing of the BFFG are also described.

Takeaway Notes:

- -The BFFG harvest technique.
- - The manipulation of the BFFG at the recipient site.
- - The use of the BFFG in the different clinical applications.
- - The healing stages of the BFFG at the recipient site.

The presentation is clear and shows all the above stages so the audience can learn how to use the BFFG in different senarios at their daily clinical practice.

The BFFG can provide solution for a wide clinical situations that need soft tissue augmentation, and can improve the soft tissue volume ant quality at the different recipient sites.

Biography

Dr Kablan received his D.M.D diploma from Tel Aviv University, Dental School in 1993. Dr Kablan completed his post-graduate studies in Maxillofacial surgery at Poria Medical Center Tiberias Israel, and has been a senior surgeon at the maxillofacial department at Poria Hospital since 2005 and has been treating bone atrophy situations with different approaches include nerve transposition. He has developed new methods of hard and soft tissue grafting, which have been presented as clinical innovations in the Annual Meetings of the Academy of Osseointegration, USA 2010, 2011, 2016 and 2017.

The dilemma of the retained lower second deciduous molars in the management of congenitally missing lower second premolars

Khaled Khalaf PhD, BDS, FDS (Orth) RCS (Eng), FFDRCSI (Orth.), M Orth RCS (Eng), M Orth RCS (Edin), MFDSRCS (Eng), MFDSRCS (Edin), MFDSRCPS (Glasg), FHEA, FFDTRCS (Edin)
King Faisal University, Saudi Arabia

The purpose of this study was to discuss the challenges which the clinician is faced with in the management of retained lower second primary molars in patients with congenitally missing lower second premolars and the current approaches adopted in the management of this condition. The lower second premolars and the upper lateral incisors have been reported as the most commonly congenitally missing teeth in humans. When the lower second premolars are congenitally missing it is important to make an early decision of what needs to be done regarding the retained lower second primary molars so that an optimal long-term treatment outcome is achieved. This poses various clinical challenges to the multidisciplinary team including, infraocclusion of the lower second primary molars which tends to get worse with growth, the large mesio-distal crown dimension compared with that of the lower second premolar, the common occurrence of progressive root resorption of the lower second primary molars, the occurrence of ankylosis of the lower second primary molars, crown and root morphology of the lower second primary molars which renders the restorative reshaping of this tooth very difficult without causing detrimental effects to the dentition and occlusion. Good knowledge and clinical skills are required by the multidisciplinary team to overcome these challenges and choose an optimal treatment option to each case which may involve: maintaining the lower second primary molars +/- restorative reshaping of the clinical crown, extraction of the lower second primary molars and maintaining the space for future restorative replacement, extraction of the lower second primary molars and active space closure, early extraction of the lower second primary molars to allow spontaneous and complete space closure, early restorative reshaping of the lower second primary molars to allow partial space closure to optimise the future space for optimal restorative replacement, and extraction of the lower second primary molars and autotransplantation of a premolar tooth from another quadrant to the site of the congenitally missing second premolar.

Takeaway Notes:

- Have a comprehensive knowledge of the challenges encountered in the management of patients with congenitally missing lower second premolars and retained lower second primary molars
- Have a thorough knowledge of the treatment options involved in the management of patients with congenitally missing lower second premolars and retained lower second primary molars
- Have a knowledge of the advantages and disadvantages of each treatment option in the management of patients with congenitally missing lower second premolars and retained lower second primary molars
- Be able to monitor dental development and liaise with other health care provider to best manage patients with congenitally missing lower second premolars and retained lower second primary molars
- Be able to make a timely and appropriate referral of patients with congenitally missing lower second premolars and retained lower second primary molars so that the optimal treatment option can be achieved

Biography

Dr Khalaf is an Associate Professor at King Faisal University, KSA. He has completed his PhD from the University of Sheffield, UK 15 years ago and was awarded Membership in Orthodontics of both the Royal Colleges of Surgeons of England and Edinburgh, UK and a Fellowship in Dental Surgery (Orthodontics) of the Royal College of Surgeons in Ireland. Moreover, he gained the Intercollegiate Specialty Fellowship in Orthodontics of the Royal Surgical Colleges and a Fellowship in Orthodontics of the Royal College of Surgeons of England and accreditation as a Consultant Orthodontist. Furthermore, he has completed a formal training in Higher Education which lead to the award of Fellowship of the Higher Education Academy, UK and was further awarded a Fellowship of the Faculty of Dental Trainers, Royal College of Surgeons of Edinburgh as a recognition to his significant contribution and involvement in Higher Clinical Training. He has many publications in prestigious international journals. He is a reviewer and serves on the editorial board of several international journals. He has also presented many papers in renowned international conferences

Surgical and prosthetic details in anterior rehabilitation: Minimally invasive intervention in aesthetic regions

Eduardo Sorgi DDS., MSc., Ph.D
Sao Paulo State University, Brazil

This presentation shows every detail of rehabilitation in aesthetic regions. Since surgery to remove the missing dental element, implant placement with simultaneous alveolar bone regeneration, soft tissue manipulation, tissue manipulation with temporary prostheses and customized ceramics.

The focus on details and planning for cases in anterior regions is the main point of the presentation. All the presentation is based on the solution of cases in the anterior region. The idea is to present surgical extractions with minimally invasive techniques, seeking the greatest possible preservation of tissues. Shortly after the extraction, I will show our work protocol that involves a precise positioning of the implant that is a significant factor for the aesthetic success of the final rehabilitation.

It will be presented bone regeneration techniques guided using BioOss -Geistlich Company, simultaneously with the installation of the implant. Techniques using connective tissue that favor the gingival contour and gingival papillae formation will be seen.

Also, I will talk about the importance of soft tissue manipulation through conditioning with provisional restorations.

The presentation of several case reports on this subject shows the completion of all such cases with ceramic restorations using customized abutments that provide support to the soft tissue.

The main point of the lecture is to discuss the challenges of unit and multiplex cases in the anterior region, providing solutions that provide a final result with high aesthetics and naturalness with ceramic rehabilitations.

Biography

Upon completion of my degree in Dentistry, I started working with prosthodontics at a private clinic and began specialization training. After my Specialization in Prosthodontics I began my career in Implantology. I had the privilege of studying for my PhD at the Medical School in the Federal University of São Paulo. This academic experience gave me a broad view of patients and allowed me to perform related research in both medical and dental. Always, I dedicated myself to Prosthodontics and Implantology, both in clinical practice and as an academic instructor. I think my professional background of working simultaneously in academics and clinical practice strengthens my ability to teach. My teaching strategy in dentistry has always been based on lectures, laboratory and technical training and clinical applicability. The lectures are conducted using Apple Keynote program and I always try to present technical information along with illustrations, and many photographs and videos of clinical cases on the subject. The technical information for the lectures is based on text books, but mostly recent findings from scientific articles. The laboratory activities have students reinforcing information taught in the lectures. I value the importance of being present directly to support students at all times with clinical patients; always guiding with patience and focus. In the classroom, I enjoy interacting with the students, encouraging them to participate in the topic of discussion. I have been heavily involved in Prosthodontics and Implant Dentistry research as part of my career. My areas of focus are: bone reconstruction, biomaterials, guided bone regeneration, ceramics and customization of ceramic components. I have supervised several students in research related to these subjects and participated in many evaluation stalls. I would greatly enjoy instructing students who are interested in becoming involved with research. I am currently writing a second book related to guided bone regeneration, tissue engineering, provisionalization and customization of ceramics in anterior regions.

Recent Periodontology innovations emphasis on a study of novel bone grafts

Ashar Jamelle

Masters clinical dentistry periodontology (Queen Mary university London) Assistant professor Fatima Jinnah Dental college Karachi, Pakistan

Regeneration in periodontics has many facets and developments. Novel new ways of platelet rich plasma and autogenous teeth have also found its way into the choices of regeneration and have been found to be a cheaper alternate along with promising results. Emdogain has its mainstay and cases done by our department and results will be shown highlighting various new ways in treatment modalities along with cases which are relevant to show how effective these can be. A study done at queen mary university undertaken by me with the help of professors on calcium phosphate and bioactive glass combination as a alloplastic new material will be featured. Researchers had discovered calcium phosphate crystals which are a bioactive and biodegradable bone grafting material Novel material can be made by mixing bioglass and Calcium phosphate and have cements set to form hydroxyapatite or brushite produce HAP, brushite and fluorapatite forming cements. Photodynamics and lasers the new products of the future with its precision and being immaculate and ease of handling would be stressed on. alongwith drawbacks as well as effectiveness. New concepts along with older concepts will be revisited and pondered by linking both giving a insight to advancements in periodontology.

Biography

BDS from fatima Jinnah. Masters clinical dentistry periodontology from Queen Mary university London(barts and the london hospital) .fcps part 2 postgraduate training in operative dentistry from Agha Khan university hospital Karachi.Aga khan postgraduate alumni. Three local publications one international .lectures in conferences representing Pakistan internationally in the Malaysian international dental conference in January 2011. Presented at many conferences as a invited speaker at a national level .Currently Assistant professor head of department at Fatima Jinnah Dental college since two years. Won prizes for scientific presentations.

State of the art on immediate implantation and immediate loading in the esthetic zone

Abdulgani Azzaldeen , DDS, Ph. D , Ass. Professor
AlqudsUniversity, Israel

Immediate implants are positioned in the course of surgical extraction of the tooth to be replaced. The percentage success of such procedures varies among authors from 92.7-98.0% the main indication of immediate implantation is the replacement of teeth with pathologies not amenable to treatment. Its advantages with respect to delayed implantation includes reduced post-extraction alveolar bone resorption , a shortening of rehabilitation treatment time , and avoidance of a second surgical intervention . The inconveniences in turn comprise a general requirement for membrane – guided bone regeneration techniques, with the associated risk of exposure and infection, and the need for mucogingival grafts to seal the socket space and / or cover the membranes. The surgical requirements for immediate implantation include extraction with the least trauma possible, preservation of the extraction socket walls and thorough alveolar curettage to eliminate all pathological material.

Primary stability is an essential requirement, and is achieved with an implant exceeding the alveolar apex by 3-5 mm, or by placing an implant of greater diameter than the remanent alveolus. Esthetic emergence in the anterior zone is achieved by 1-3 mm subcrest implantation. Regarding guided regeneration of alveolar bone, the literature lacks consensus on the use of membranes and type of filler material required. While primary wound closure is desirable, some authors do not consider it to be of great relevance.

The dental implant and provisional restoration provided the patient with immediate esthetics, function, comfort and most importantly preservation of tissues.

**MRI-based determination of occlusal splint thickness for temporomandibular joint disc derangement:
A randomized controlled clinical trial**

Ayman F. Hegab*, Associate professor of Oral & Maxillofacial Surgery, Department of Oral & Maxillofacial Surgery, Faculty of Dental Medicine, Al-Azhar University in Cairo, Egypt.

Ahmed Hossni Youssef, prosthodontic professor Faculty of dentistry Al AzharUni, prosthodontics consultant at DR Marwan dental center Doha Qatar

Hossam I Abd Al hameed, Ass. Prof. of Diagnostic Radiology, Alazher University, Faculty of Medicine for Men, Cairo, Egypt

Khaled Said Karam, Ass. Prof. of Diagnostic Radiology, Alazher University, Faculty of Medicine for Men, Cairo, Egypt

Objective: The current prospective study aimed to describe a method using magnetic resonance image to assess the appropriate effective occlusal splint vertical thickness.

Study Design: the patients were diagnosed as having internal disc displacement of the TMJ was divided into two groups.

Group I (Disc Displacement with Reduction-DDR): This group was randomly subdivided into two subgroups.

Subgroup IA (control group): patients treated using 3-mm-thick splints.

Subgroup IB (study group): patients treated using MRI-based splint thickness.

Group II (Disc Displacement without Reduction-DDNR): This group was subdivided randomly into 2 subgroups.

Subgroup IIA (control group): patients treated using 3-mm-thick splints.

Subgroup IIB (study group): patients treated using MRI-based splint thickness. The primary outcome variables were maximum voluntary mouth opening (MVMO) and visual analogue scale (VAS). The secondary outcome variable was joint sounds. The final sample was composed of 162 subjects (Group I = 90 and Group II = 72).

Results: Statistical analysis showed significant improvement of the clinical outcome in subgroups IB and IIB as compared to that in subgroups IA and IIA.

Conclusion: On the basis of MRI measurements and clinical outcome, the current study recommended 4 mm and 6mm vertical splint thickness for DDR and DDNR respectively for 1 year.

The presentation will include the MRI images of the cases pre and post treatment

This study accepted by OOOO journal (Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology)

Takeaway Notes:

- The present study aimed to describe a new method of using MRI to assess the most effective vertical thickness of the occlusal splint for the management of TMJ internal derangement.
- The vertical thickness of the occlusal splint can be most effectively determined by trying different thicknesses during MRI acquisition to find the appropriate thickness to correct internal derangement.
- It improve the accuracy of a design, or provide new information to assist and management of TMJ internal derangement

International Conference on **Dentistry & Oral Health**

**September 14-16, 2017
Valencia, Spain**

Biography

Dr. Ayman Hegab is a Clinical Associate Professor of Oral & Maxillofacial Surgery, Faculty of Dental Medicine, Al-Azhar University, Cairo, Egypt. Editor: Journal of Dental Health, Oral Disorders & Therapy. Editor: Journal of Oral Hygiene & Health OMICS Group (USA). Editor: Journal of dentistry and orofacial surgery. Editor: International Journal of Oral and Craniofacial Science. Reviewer: Journal of Cancer and Tumor International. Reviewer: Journal of Dentistry OMICS Group (USA). Reviewer: Open Journal Stomatology (USA). Reviewer: British Journal of Medicine and Medical Research (UK). Member of Egyptian Dental Association. Member of Egyptian Society of Oral & Maxillofacial Surgeon. Doctor, s Degree (PhD) of Oral & Maxillofacial Surgery focuses on the Alveolar Cleft, Faculty of Dental Medicine, Al-Azhar University, Cairo. February May 2007. Master's Degree (MSc) of Oral & Maxillofacial Surgery focuses on the TMJ Surgeries, Faculty of Dental Medicine, Al-Azhar University, Cairo. December 2003. Bachelor Degree (BDS) of Dental Medicine & Oral Surgery, Faculty of Dental Medicine, Al-Azhar University, Cairo. May 1997. He has the privilege to design and introduce Tooth-Borne, Custom-Made Distraction Device for closure of the alveolar cleft which is approved by American Journal of Oral and Maxillofacial surgery (Hegab Alveolar Distraction Device). Also, He has the privilege design and introduce split acrylic splint for treatment of pediatric mandibular fracture which approved by the British journal of Oral and Maxillofacial Surgery (Hegab Pediatric Mandibular Fracture Device). He has over 20 Publication in peer reviewed journals. He is one of AEEDC Young Researcher Award Participants for 2012 & 2013. He was Speaker in many of the international conferences in USA, Qatar and UAE.

A little bit of psychology

Nuran Ozyemisci-Cebeci, DDS, PhD
Hacettepe University, Turkey

Oral hygiene plays a key role in the service life of prosthetic restorations. There have been several studies on oral hygiene habits of patients with fixed/removable partial denture, complete denture and implant retained restorations. According to results of these studies, oral hygiene knowledge is not enough to maintain satisfactory oral hygiene behavior. Social-psychological theories of behavior might help understanding why and how behavior change occurs and what the factors and conditions are that drive behaviors. The theories of behavioral change will be explained and which model of behavioral change might be useful to improve oral health behaviors will be discussed.

Takeaway Notes:

- This presentation introduces how to combine psychology and dentistry.
- Dentists and dental hygienists will be able to educate patients and change patients' oral hygiene habits more effectively.
- There have been few studies addressing "the social-psychological theories of behavior" in dentistry. Some of these theories have been reported in health issues but have not been used in dentistry yet. These untried techniques might be promising for researchers in the field of preventive dentistry.

Biography

I'm a lecturer at Dental Prosthetics Technology Program, Vocational School of Health Services, Hacettepe University, Turkey. I'm graduated from Faculty of Dentistry of Hacettepe University in 2003. I received my PhD in Prosthodontics from Gazi University in 2010. Besides being a lecturer and a dentist, I'm closely interested in psychology. I have attended several educations and workshops about hypnotherapy. I'm 40 years old, married, have a 2-years old daughter.

Diagnostic efficacy of cone beam computed tomography (CBCT) in impacted maxillary canine: Systematic review

Hassan A*, Christina L. Ayman A. Liselott P
King Khalid University, Saudi Arabia

Background: The maxillary impacted canine is the second most common impaction after the mandibular 3rd molar and has the potential to cause challenge to clinicians. An accurate localization of the impacted canine and its adjacent teeth is essential. Traditional radiological assessment relies on the use of periapical, panoramic and lateral images and the use of parallax movement between images taken with different perspectives. The precise identification of position and associated root resorption of adjacent teeth may, however, require the use of sectional imaging. Available methods are computed tomography (CT) and cone beam computed tomography (CBCT), where CBCT has been proved superior to CT with regard to radiation dose and cost. Despite the expected advantages of CBCT, the impact on patient management, the increased radiation dose and costs compared with conventional radiography has to be considered. To search for evidence that CBCT has a higher diagnostic efficacy than conventional radiography appears essential.

Objective: To systematically review the literature on diagnostic efficacy of CBCT for investigating the position of impacted maxillary canine and root resorption of adjacent teeth.

Methods: The review was planned and achieved based on the preferred reporting items for systematic reviews and meta-analysis (PRISMA) statement and guidance of Centre for Reviews and Dissemination for undertaking reviews in healthcare. Review question - what is the diagnostic efficacy of CBCT for investigating impacted maxillary canines regarding position and root resorption of adjacent teeth? Literature searches - MEDLINE, SCOPUS, WEB OF SCIENCE and COCHRANE up to December 01, 2015. Study selection - The PICO elements were used to define population as patients with impacted maxillary canines, intervention as CBCT as index test, control/reference standard as another method of diagnosis outcome as diagnostic efficacy. Data extraction and synthesis - studies were assessed according to eligibility and methodological quality.

Results: From 1361 identified records, 10 (0.73%) articles met the inclusion criteria for quality assessment. Further one article was included from the reference lists of full-text articles assigned for eligibility. A total of 10 original studies were included in the quality assessment stage in addition to two systematic reviews. Most of evidence is related to diagnostic accuracy efficacy. No studies were identified in the levels of patient outcome efficacy or societal efficacy. The quality of the studies varies with regard to bias and applicability.

Takeaway Notes:

- The importance and role of CBCT in addressing the position of impacted maxillary canine and potentially associated root resorption of adjacent teeth.
- CBCT examinations must be justified on an individual basis
- There is no strong evidence to support using CBCT as a "first line" imaging method for assessment of impacted maxillary canine.
- Systematic review update is under progress to address the advancement in evidence.

Biography

Dr. Hassan currently works as a lecturer in King Khalid University, Dental School which is located in Abha city, Saudi Arabia. He earned his Bachelor degree in dental surgery from that university in 2010. Shortly, he was awarded with position of teaching assistant in Oral Radiology. Dr. Hassan worked for four years in the department of Diagnostic Science and travelled in 2014 to Sweden for post-graduation study. He earned his Master Degree in Dental Science with clinical training in the field of Oral and Maxillofacial Radiology from the University of Malmo in Sweden in 2016.

Evaluation of vertical measurements of molar teeth regions on panoramic radiographs obtained by dry skull by using different positions

Bilgün Çetin*, Faruk Akgünlü
Selcuk University, Turkey

Introduction: Panoramic radiography is used in dentistry for more than half a century. It is used for scanning the jaws and teeth before orthodontic treatment, maxillofacial surgery and also implants surgery. Having the ability to observe both jaws and adjacent structures at the same time, showing the large lesions and all the teeth in one image are some advantages of panoramic radiographs compared to intraoral radiographs. However, creating the magnification is the most important disadvantage. Magnification ratios ranging from 10% to 30% have been reported, depending on the positioning of the jaws.

In this study, we aimed to investigate the effect of panoramic x-ray on the alveolar bone for each molar tooth separately and the magnifications in different levels of this bone (three levels were used) with different head positions. In this respect, it is aimed to provide more efficient use of panoramic x-ray and reduce unnecessary tomography shots.

Methods and Materials: In the study, three spherical metal balls (diameter: 3.15mm) were placed in each of the 28 teeth regions of the human dry cranium model. The three metal balls were placed equal spacing, one of which was on occlusal, the other one was on middle triple, and the last one was on apical region. Being used different angles and positions 15 panoramic images were obtained. The positions were determined as horizontal (X: right +, left -), anteroposterior (Y: anterior +, posterior -) and right-left rotation (Z: right+, left -). The images were then be evaluated by an observer by using computer program (image J version 1.4). The obtained vertical dimension measurements were divided by the actual ball diameter to calculate the magnification factors and 312 measurements were subjected to statistical processing (Statistical Programme of Social Sciences SSPS).

Results: For the analysis of data Kolmogorov-Smirnov test for normality and Levene test for homogeneity of variance were performed. Then, One Way ANOVA test was performed for statistical analysis. For all molar teeth, differences of magnification factors between the three bone levels were not statistically significant ($p > 0.05$). The differences between magnification factors are statistically significant in only maxillary molar regions on $X=+5, Y=0, Z=0$ and $X=+5, Y=0, Z=+5$ positions. ($p < 0.05$).

Conclusion: With the increase of implantation in the last years in dentistry, the number of cone beam computed tomography also increased. Although tomography has many advantages, patients are exposed to more radiation than intraoral and extra oral direct radiography techniques. We think that a patient with a complicated jaw and mouth structure or having multiple missing teeth may require a preoperative CBCT image before surgery, but panoramic radiographs is adequate in a patient with fewer missing teeth or a good bone level. If the magnification factor is known, even small positioning errors can be overcome and the vertical dimension can be calculated close to the real value.

Takeaway Notes:

- It is possible to obtain an approximate vertical dimension even in the case of minor positioning errors and panoramic radiographs may suffice before uncomplicated implant or pathology surgical planning. It will be tried to give that there is no need for regular CBCT shooting.

Biography

Bilgün Çetin was born in Gürün (a town of Turkey) in 1987. She graduated from Ankara University Faculty of Dentistry in 2012. She began post-graduate education at Selcuk University in 2014. She is still continuing her education as a post-graduate student in Oral and Maxillofacial Radiology Department.

New bone grafting technique for soft tissue repositioning and radicular and / or implant bone defect replacement

Samuel Tacher L*, D.D.S. OMFS

This innovative minimally invasive bone grafting technique was developed 8 years ago having as principal objective giving bone support for repositioning soft tissues that have recessions that ranged from 2 mm to 13 mm. Very small incisions are done superior to the recession area, careful dissection of the periostium with bold instruments is done to liberate the gingiva, the particulate bone graft (we recommend using autologous bone mixed with allogenic bone grafting material) is then condensed carefully taking the soft tissues to their original position and giving support to roots and or implants that present vertical or horizontal bone loss. Providing support for gingival repositioning and solid support for dental organs that present moderate to severe mobility, soft tissue recessions, and bone loss replacement for implants and dental roots.

Takeaway Notes:

- The audience will be able to understand the importance of giving bone support for radicular stability and recover the natural gingival architecture which will remain stable as well as reducing dental mobility.
- The benefits of this new technique give the dental practitioner the possibility of saving teeth with moderate to severe mobility by giving vertical and horizontal support using bone graft, and repositioning the soft tissues to its original positioning.
- The practitioner will be able to reestablish soft tissue architecture that recovers the normal crown to root ratio, esthetic architecture including creation of interdental papilla and adequate emergent profile of dental or implant supported crowns.
- This technique is both minimally invasive and can be done at low cost for patients which makes it a good and stable alternative to recover bone support for dental roots and implants, providing the soft tissues of bone support for the anatomically correct support of the soft tissues including interdental papilla.

Biography

Dr. Samuel Tacher graduated from Universidad Intercontinental school of dentistry in Mexico City, did his residency in oral and maxillofacial residency at The University of Texas in Houston. Since he returned to Mexico he has been involved in teaching at university, for more than 20 years lecturing national and internationally and publishing articles mostly on implantology and oral reconstruction. Dr. Tacher has developed social programs to provide oral care for the most needed with great success. Recently published a new technique for mandibular local anesthesia (<http://www.medigraphic.com/flipbook/od/od2017/num3/mobile/index.html#p=7>). Research and questioning always if there is a better way brought as a result different techniques that improve quality and reduce costs and complications, that's how this new bone graft technique was conceived resulting in the possibility of returning tissues both hard and soft to their anatomic and physiologic state giving the patient a much better quality of life, function and esthetic.

Investigating the effect of handedness on the dental caries pattern, gingival index and plaque index in 6-10 years old children

Saeedeh Mokhtari*, Assistant Professor, Department of Pediatric Dentistry, School of Dentistry, Tehran University of Medical Sciences, Tehran, Iran.
Iman Sanati, Pedodontics, Private practice, Tehran, Iran. Somayeh Alamdari, General Practitioner, Private Practice.

Objectives: It seems that the right-handed and left-handed individuals have different ability in brushing and removing plaque at different areas of the mouth. This study was conducted to evaluate the effect of handedness on dental caries pattern, gingival and plaque indices in 6-10 years old children.

Methods: Children with 6-10 years old age who had inclusion criteria were selected. Handedness of the subjects was determined using Edinburg method. Dental caries, plaque and gingival indices were also measured and recorded for each child. Then the relationship between handedness and the recorded variables were evaluated.

Results: The results showed that there is no significant relationship between any of the variables with being left or right-handed. A significant relationship was observed only between the lowest plaque index and handedness ($P\text{-value} < 0.05$).

Conclusion: A relationship cannot be considered between handedness of children and their oral health status.

Takeaway Notes:

- According to this issue, the methods of oral hygiene education and strategies for prevention need no differences with each other in the right-handed and left-handed people to being conducted enough removing plaque at different areas of the mouth.

Biography

I am Dr. Saeedeh Mokhtari. I am graduated from Tehran university of Medical Sciences in 2009 as general practitioner and graduated from Tehran Azad University in 2012 as pedodontics. I was assistant professor of dental school of Shahid Beheshti University of Medical Sciences from 2012-2014 and I am assistant professor of dental school of Tehran University of Medical Sciences since 2014 till now.

Social determinants in access and dental care for pregnant women

Jairo Corchuelo Ojeda
University of the Valley, Colombia

Dental care during pregnancy is an opportunity to enhance behaviors and habits for promoting health and prevention of disease and to contribute to reduce childbirth-related complications and low birth weight.

The purpose of this paper is to share the results of different studies of the line of research on social determinants in dental care for pregnant women from the Pacific XXI research group of the School of Dentistry at the University of Valle in Cali, Colombia.

The first study carried out in 2009 evaluated the presence of inequities in dental care in a health network in Cali-Colombia; it was a retrospective descriptive study, where it was found that the uninsured population had a DMF index of 11.12 while the DMF index of the insured was 9.41. In restorative dentistry, treatments were completed in 63.7% of the insured population, 33.3% of the uninsured population.

The following study aimed to describe the differences or similarities between the prevalence of caries, gingivitis and oral hygiene in pregnant and non-pregnant women in 13 municipalities of Valle del Cauca in Colombia between 2009 and 2011. In this study, we found that The prevalence of caries and gingivitis was higher in pregnant women; The existence of differences between pregnant and non-pregnant women in relation to age, prevalence of gingivitis, percentage of plaque, DMF index, oral health knowledge and food consumption between meals were also identified.

The third study was a review of accessibility using the Guide on implementation of the narrative synthesis used in systematic Reviews of research evidence. The most frequently identified relating to access to dentistry-related factors were: age of the pregnant woman, schooling level, ethnicity, marital status, income, occupation, socioeconomic level and attention-related social dynamics as access to information, health assurance and use of dental service according to trimester of gestation.

A cross-sectional analytical study was conducted in a sample of 993 postpartum women who had given birth in public and private clinics in 2012. Multivariate analysis showed that dental care was associated with: economic resources (86.6% sufficient resources versus 72.5% insufficient resources; OR = 1.8; 95%CI: 1.1-2.8), schooling (88% complete versus 74% incomplete secondary school, OR = 1.7; 95%CI: 1.1- 2.7), and receiving information on oral health and dental care during prenatal care (86.4%: yes versus 42.9%: no, OR = 5.7; 95%CI: 3.1-10.0). The rate of attendance to dental appointments during pregnancy was 83%, and the distribution was unequal. Social determinants such as the socioeconomic and lifestyle levels were associated with the pregnant mothers' access to dental services.

Analyzed the database of the IV National Oral Health Study for 1050 pregnant women evaluated, we found results similar to the study of accessibility to dentistry that we had done in Cali in 2012; Attendance at the dentistry service was associated with remission performed from prenatal control, urban / rural location, social security, ethnicity and Have received education and brushing instruction in the last year.

Takeaway Notes:

- This presentation will provide the participants with tools on how to advance studies with a focus on social determinants in oral problems
- Teachers and participants will be able to replicate the different studies used in the approach to social determinants and participate in the generation of multicentric studies related to oral care
- The sharing of methodologies to investigate inequalities in oral health will improve the designs for addressing the social determinants of health

International Conference on **Dentistry & Oral Health**

September 14-16, 2017
Valencia, Spain

Biography

Professor of Dentistry at the School of Public Health at the University of Valle, with a doctoral degree in Public Health Sciences at the University of Guadalajara (Mexico), a Master's Degree in Health Administration from University of Valle (Colombia), Specialist in Finance of the Libre University (Colombia), Specialist in Strategic Management in Information Systems of the University of Santiago de Cali (Colombia) and Academic Stay in Dental Public Health at the University College of London.

At the professional level he has been a public health advisor and manager in Hospitals of different levels of care. I have participated in the direction of the National Survey of Health, Welfare and Aging Colombia 2015. He is currently managing the Oral Health Research Group Pacific Siglo XXI. He participated as a tutor in the virtual campus of Public Health of the Pan American Health Organization in the course of Social Determinants in Health.

Simplify impression techniques for edentulous patients

Abdulrahman Almalki

Umm Al-Qura University, Saudi Arabia

Background: Success of complete dentures depends on accuracy of final impression; normally, impression requires multiple steps to be performed and this poses extra cost and time in addition to patient hassle. Single step final impression with elastomeric impression has been reported to overcome these problems without jeopardizing final outcome. The aim of this study is to compare the retention of three different final impression techniques.

Material and Method: Fifteen completely edentulous patients participate to evaluate the retention provided by three different final impression techniques (conventional border molding on a special tray with Green stick compound and final wash with Zinc oxide and eugenol, conventional border tracing on a special tray with putty elastomeric impression material followed by a final wash with light body impression material and thermoplastic stock tray with elastomeric impression material). A digital force meter was used to measure retention strength provided by each technique. The purpose was to determine whether the single step impression technique is effective, and to assess which impression technique offers the highest retention strength.

Results: The statistical analysis showed no significant differences between the three impression techniques, although zinc oxide and eugenol on special tray technique showed highest mean values of impression retention followed by the single step impression technique.

Conclusion: Single complete denture impression technique is effective and comparable to the conventional technique and can be used for patient convenience.

Biography

Graduated from Faculty of Dentistry, Umm Al-Qura University (UQU), interested in prosthodontic and restorative dental researches.

Periodontal disease and obesity in adults. A review of the available evidence

Chatzipantelis A. (BDS, MFDS, MSc Clin.Dent, Dip.Rest.Dent, LLM Med.Law)
Cardiff University Dental Hospital, United Kingdom

The aim of this presentation is to review and analyse the available research evidence of the relationship between obesity and periodontitis and present its clinical importance.

A large proportion of the world's population has been affected by the rising prevalence of obesity. Obesity has been associated with the development of a number of systematic diseases, including type II Diabetes, Cardiovascular disease and even cancer. The association between obesity and periodontal disease has been also investigated. Current research evidence identifies a correlation between obesity and periodontitis. Obesity has a causal relationship with Type II Diabetes and is one of the components that constitute the Metabolic syndrome; both of the latter conditions have been related with periodontal disease. It is still unclear how the interplay between obesity and other systematic diseases affect the periodontal health. In addition to this, the complexity of the pathogenesis of the periodontal condition makes the causal association between obesity and periodontitis difficult to establish. On the other hand, the research evidence regarding the periodontal healing after treatment in obese and non-obese populations suggest that there is little or no difference in their treatment outcomes when both groups receiving periodontal treatment.

The current research evidence suggests that obesity presents an association with an increased prevalence of periodontitis. The exact mechanism of the association is not yet fully understood, however there are suggestions that obesity affects the inflammatory response of the periodontal tissues. The evidence remains equivocal, considering that similar studies regarding the periodontal treatment results present no significant difference between obese and non-obese populations. Other reasons that can contribute to the development of periodontal disease can be attributed to social, economic and behavioral factors that could also play a role in the development of obesity. Clinically, appropriate weight control could benefit the oral health of the patient.

Takeaway Notes:

- The audience will have the opportunity to learn about the most recent research evidence regarding the relation between obesity and periodontitis.
- The audience will have the opportunity to learn the clinical benefits for the oral health of appropriate weight control.
- Finally, I will discuss a clinical approach for appropriate dental/oral and general medical management of a patient that presents the conditions.

Biography

My name is Andreas Chatzipantelis and I qualified as a Dental Surgeon from the School of Dentistry of Aristotle University of Thessaloniki. I hold an MSc in Clinical Dentistry from the University of Leeds with subject of my research the relation between obesity and the prevalence of periodontal disease. Furthermore, I hold a Diploma of Restorative Dentistry and a Masters in Law (LLM) in Medical Ethics and Law. After lengthy experience in Primary Care, the Restorative Dentistry Department at the University Dental Hospital in Cardiff with clinical and academic duties.

International Conference on Dentistry & Oral Health

September 14-16, 2017
Valencia, Spain

INDEX

| | | | |
|--------------------------------|-----|--------------------------------------|-----|
| Abdulgani Azzaldeen | 95 | Khaled Khalaf | 92 |
| Abdulrahman Almalki | 105 | Kyu-Bok Lee | 75 |
| Agron Hoxha | 68 | Leslie Casas A | 50 |
| Alessandro Leonida | 34 | M.O. Luz Veronica Rodriguez López | 81 |
| Alexander Schembri | 67 | Maha Ali Al-Mohaya | 55 |
| Ali A. Razooki Al-Shekhli | 29 | Marilia Mattar de Amoedo Campos Velo | 52 |
| Alina Noelia Pelaez | 24 | Markus Lietzau | 23 |
| Andreas Chatzipantelis | 32 | Mehdi Rahimi | 14 |
| Andreas Chatzipantelis | 106 | Mohita Sinha | 30 |
| Ashar Jamelle | 94 | Nagore Arroyo Lamas | 74 |
| Ayman Hegab | 96 | Nelio Jorge Veiga | 39 |
| Bilgun Cetin | 78 | Noah Turk | 66 |
| Bilgun Cetin | 100 | Nuran Nozyemisci-Cebeci | 98 |
| Carolina Freitas Lage | 27 | Paula Goes | 54 |
| Christina Mejersjo | 64 | Perihan Oyar | 76 |
| Cristiane lopes Miguel | 33 | Peter Foltyn | 38 |
| David Gillam | 13 | Peter Reinhard Pospiech | 37 |
| David Gillam | 43 | Phil jevon | 70 |
| Dila Berker Yildiz | 87 | Qian Ren | 57 |
| Eduardo Sorgi | 93 | Rakesh Malhotra | 49 |
| Fares Kablan | 91 | Reema Alghaithy | 31 |
| Felicity Croker | 20 | Saeedeh Mokhtari | 102 |
| Felicity Croker | 46 | Salvatore Sauro | 11 |
| H.S. Kim | 82 | Samira Hosseini | 88 |
| Hassan Ahmed Assiri | 99 | Samuel Tacher Levy | 101 |
| Hyeokjae Kwon | 84 | Saoudi Fadila | 60 |
| In-Sung Luke Yeo | 83 | Stefanik Simard Lebel | 69 |
| Jaana Sippus | 22 | Susumu Nisizaki | 19 |
| Jairo Corchuelo Ojeda | 25 | Susumu Nisizaki | 44 |
| Jairo Corchuelo Ojeda | 103 | Svitlana Koval | 59 |
| Jeffrey M. Coil | 18 | Takashi Ukai | 77 |
| John C Comisi | 10 | Vicente Faus Matoses | 36 |
| Jorge Rubio | 17 | Walid Odeh | 63 |
| Julissa Dulanto Vargas | 80 | Xiaobing Guan | 61 |
| Keyse Loyanne Batista da Silva | 79 | Zvi G. Loewy | 48 |



Notes

About ICD 2018

2nd International Conference on
**Dentistry
and Oral Health**

September 20-22, 2018, Rome, Italy

www.dental-conferences.magnusgroup.org

