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DOHS 2019

DENTISTRY AND ORAL HEALTH SUMMIT

May 27-28, 2019
Rome, Italy

Theme: *Excelling in Trends and Era of Science in Dental Education*

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DAY 1

Keynote Speakers

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Clinical Cases in Orthodontics and Facial Orthopedics and Aligners

Liana Lima Pinheiro

Managing Director of Oficina de Ortodontia, Brazil

Orthodontic appliances do not diagnose or treat a clinical case. They are tools that, if used properly, will allow us to reach an ideal dental position, within a functional occlusion, in perfect harmony with the TMJ's and associated musculature. After diagnosis, a treatment plan is established and we select the right technique to treat. The interaction of techniques also allows the professional to be comprehensive to all clinical cases, taking advantage of the best part of each technique. Alignments, rotations, leveling and intercuspations are easy to correct with fixed appliances, however the diagnosis may show us the need for an expansion, giving value to the removable appliance and indication in the treatment. Orthopedics is also not the answer to all problems although it is the best solution for early interception of malocclusions, normalizing the functional spaces and allowing the correction of growth. Aligners can be used with success in many cases. All the techniques are excellent when well indicated according to the diagnosis.

Biography

Doctor Liana is the author of the first Brazilian book of Lingual Orthodontics. She is also the creator of the first regular course in Lingual Orthodontics in Brazil, teaching all over the world. She is Master in Orthodontics and Facial Orthopedics, Doctor Degree in Laser in Orthodontics, Specialized in Orthodontics and Facial Orthopedics, Post-graduated in Functional Occlusion, Managing Director of OFICINA DE ORTODONTIA, an Orthodontic School in Brazil. She is an honorary member of the Brazilian Odontology Academy and also from Odontology Academy of Rio de Janeiro, an important title to her professional career not only as in recognition of her clinical and educational work but also her professional success.

DAY 1

Oral Presenations

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Evaluation of the Prognostic Significance of the Cytokine Profile (IL-1β AND IL-4) of Oral Fluid in the development of initial periodontitis in Young People

Galyna Biloklytska
Shupyk National Medical Academy of Postgraduate Education, Ukraine

Introduction: One of the leading roles in the occurrence of periodontal diseases is played by dysfunctions of cytokine regulation of immunobiological processes. The development of pathological process in periodontitis is accompanied by an imbalance of cytokines in oral fluid (OF) with an increase in the level of pro-inflammatory and a simultaneous decrease in anti-inflammatory cytokines. The aim is to determine the prognostic significance of the cytokine profile (IL-1β and IL-4) of OF in the occurrence and development of periodontal tissue diseases in young people.

Methods: 80 young people (18-25 years old) were under observation, and they were divided into groups: I (37 people) - early initial periodontitis, stage I; II (22 people) - catarrhal gingivitis; III (21 people) - intact periodontium. For the diagnosis, classification of periodontal and peri-implant diseases and conditions (Chicago, 2017) was used. The presence of a bad habit - smoking was found out with the help of a questionnaire. Informational consent was signed by each surveyed. Biochemical study was performed in samples of OF obtained in the morning, on an empty stomach. The method for determining interleukins was based on a three-stage "sandwich" variant of a solid-phase ELISA, performed on the LabLine-100 automatic analyzer. Statistical processing of the data was carried out with MedCalc programm and Microsoft Excel.

Results: It was established that in patients of group I the content of IL-4 is 2.41±0.53 pg/ml; in group II - 2.67±0.56 pg/ml; in group III - 4.18±0.67 pg/ml. Comparison of the obtained results revealed a general tendency for a decrease of the level of IL-4 in OF in periodontal diseases: in I group by 1.73 times, in group II - by 1.56 times ($p \leq 0.01$). Determination of the level of cytokine IL-1β in OF: in group I - 393.99±13.96 pg/ml, in group II - 265.44±34.14 pg/ml, and in group III – 131.34±26.54 pg/ml. The level of IL-1β was increased two and three times in I ($p \leq 0.001$) and II ($p = 0.009$) group in relation to the data of group III.

Smoking, according to the analysis of questionnaires, was significantly more common in I group of patients with periodontitis ($p=0.004$), who had the most pronounced imbalance of IL-4/IL1-β (2.17±0.89 and 379,64±21.01 pg/ml, respectively).

Conclusions:

1. Determination of cytokine profile on the level of IL-4 and IL-1β in OF in young people has a great diagnostic value and reflects the stages of development of the pathological process in periodontal disease.

2. Smoking can be considered as a risk factor for the development and progression of the inflammatory process in periodontal tissues, while young people have a higher sensitivity to the effects of smoking on the content of IL-4 in OF.

3. The use of data of the level of IL-4 and IL-1β in the oral fluid in young people will allow timely apply a set of preventive measures.

Biography

Head of the department of therapeutic dentistry in Shupyk National Medical Academy of Postgraduate Education (Kiev), Honoured Master of Science of Ukraine, MD, Dr.Sc., Professor. Prof. G. Biloklytska is President of "Ukrainian Society of Periodontists" that was created in 2006 according to her initiation and proposition. According to the guidance of Prof. Galyna Biloklytska 17 PhD and 2 MD scientific works were completed by her disciples. At present time there are 4 PhD.

Features of Pathogenesis of Generalized Periodontitis in Cardiovascular Pathology

Kopchak Oksana
Shupyk National Medical Academy of Postgraduate Education, Ukraine

Introduction: The problem of periodontitis is becoming increasingly important considering the recent data on the connection with somatic diseases and cardiovascular pathology. At the heart of the pathogenesis of generalized periodontitis (GP) there are autoimmune mechanisms with the trigger - heat shock proteins. The peculiarities of the pathogenesis of periodontitis in cardiovascular pathology (CVP) have not been clarified. Aim - investigate the relationship between the nature of cytokines and anti-Hsp60 antibodies of varied specification among GP patients with CVP.

Methods: To achieve the goal, 54 patients at the age of 35.8 ± 5 were examined. Immunological studies were carried out in blood serum of 32 patients with generalized periodontitis and cardiovascular pathology. As a comparison, a group of 22 healthy patients with unharmed dental rows and intact periodontium was taken. Determination of the content of interleukins IL-1β, IL-6, IL-8, IL-4, TNF-α and anti-Hsp60 antibodies of different specificity in serum was performed by ELISA method. Diagnosis concerning somatic pathology was established by internship doctors on the basis of a survey using generally accepted techniques. The statistical processing of the data was carried out with the SPSS Statistics (IBM SPSS, the USA) and Microsoft Excel.

Results: The analysis of the obtained results allowed to establish a probable relationship in GP patients ($r = 0.42$; $p < 0.05$) of having an increase content of antibodies against human Hsp60 and the presence of concomitant CVP. A probable connection between the increase of the content ($r = 0.49$, $p < 0.05$) of antibodies against prokaryotic Hsp60 was found among the patients with GP with gastrointestinal pathology in addition to CVP.

Patients with GP have correlation among both the content of proinflammatory cytokines and antibodies against prokaryotic Hsp60 (IL-6 $r = 0.36$, $p < 0.05$, IL-1β - $r = 0.48$, $p < 0, 01$; TNF-α - $r = 0.37$, $p < 0.05$) and proinflammatory cytokines and antibodies against human Hsp60 (IL-6 $r = 0.7$, $p < 0.001$, IL-8 $r = 0.36$, $p < 0.05$, IL-1β - $r = 0.57$, $p < 0.001$, TNF-α - $r = 0.4$, $p < 0.01$). This indicates the development of autoimmune process with the signs of a systemic inflammatory response.

Conclusion: In initiation of immune responses among GP patients with CVP, the signal role of antibodies against human Hsp60 is determined, which occurs on the background of altered cytokine profile. The existence of a link between the content of cytokines and anti-Hsp60 antibodies of varied specificity among GP patients with CVP is an unfavorable prognostic criterion for the possible progression of GP in the context of CVP. The revealed correlation bonds can also be considered as one of the pathogenetic mechanisms of development of the dystrophic-inflammatory process in periodontal tissues.

Biography

Kopchak Oksana MD, Assoc. Prof., Head of the Department of Therapeutic Dentistry, Kyiv Medical University, member of PO "Ukrainian Association of Dentists", member of UPO "Ukrainian society of periodontists", associate member of the European Federation of Periodontology. She is the author of 86 scientific works, of which 3 textbooks, 3 methodical recommendations, 7 patents.

Influence of Klk4 Gene Polymorphism in the Evaluation of Erosion of Teeth in People with Thyroid Dysfunction

Kovalova Marina
Shupyk National Medical Academy of Postgraduate Education, Ukraine

Introduction: Erosion of teeth is the most common group, except caries, of diseases of hard tissues of teeth. Their frequency varies in the range of 6-14% (Richards D., 2013). The issue of predicting their development, especially in people with thyroid dysfunction, remains highly relevant. New methods of diagnosing of teeth erosion on the background of endocrine disorders with the use of genetic markers are of interest, among which the most promising is KLK4 gene. The aim is to determine the influence of KLK4 gene polymorphism in the occurrence of teeth erosion on the background of thyroid dysfunction.

Methods: Under observation were 95 people, including 35 (group I) with erosion of teeth on the background of hypo- and hyperthyroidism, and 60 persons (group II) with erosion of teeth without thyroid dysfunction. In all subjects, a molecular genetic study of the buccal epithelium of the inner surface of the cheek was performed to determine KLK4 gene using allele-specific PCR and PCR-RFLP. All participants in the study were informed about the survey. Statistical analysis was conducted using Microsoft Office Excel.

Results: Among the patients of both groups, the features of T/G polymorphism of KLK4 gene (rs2664152) were identified and the differences in patients of both groups by genotype TT and T/G alleles of KLK4 gene were determined.

As a result of the study, if allele T was present in patients, the risk of erosion of teeth was reduced ($\chi 2 = 6.47$, $p = 0.011$, OR = 0.32 95CI: 0.14-0.73), indicating its protective effect.

If G allele was present, the risk of erosion of teeth increased 3-fold ($\chi 2 = 6.47$, $p = 0.011$, OR = 3.11 95CI: 1.36-7.10).

Conclusion: The presence in the buccal epithelium of T allele of KLK4 gene prevents the development of erosion of teeth, and the presence of the genotype TT of the gene KLK4 (rs2664152 T> G) allows early detection of teeth erosion on the background of thyroid dysfunction.

Erosion of teeth is the most common group, except caries, of diseases of hard tissues of teeth. Their frequency varies in the range of 6-14% (Richards D., 2013). The issue of predicting their development, especially in people with thyroid dysfunction, remains highly relevant. New methods of diagnosing of teeth erosion on the background of endocrine disorders with the use of genetic markers are of interest, among which the most promising is KLK4 gene.

The aim is to determine the influence of KLK4 gene polymorphism in the occurrence of teeth erosion on the background of thyroid dysfunction.

Metabolic Changes in Oral Fluid in Patients with Generalized Periodontitis of Gerontological Groups

Pavlenko Ella
Shupyk National Medical Academy of Postgraduate Education, Ukraine

Introduction: Aging of the planet's population is a global problem of our time. In Ukraine, the proportion of elderly people ranges from 25% to 28%; accordingly, the number of patients in the gerontological group, who seek dental care, is increasing. According to the results of our research, generalized periodontitis (GP) is found in 95.7% of elderly patients [2018]. The development of GP plays an important role in the biochemical properties of oral fluid (OF).

The aim is to determine the peculiarities of biochemical properties of OF in elderly patients with GP I-II stage.

Methods: 112 elderly patients were examined with GP I-II stage, which by age were divided into groups: I (n = 31) - 60-69 years, II (n = 29) - 70-79 years, III (n = 25) - 80-89 years old, as well as IV (n = 27) with treated oral cavity- 72,2±7,3 years. In patients OF evaluated the index of oxidation-reducing processes: the ratio of NAD/NAD•H and SH/SS and the activity of the enzymes of pyruvate kinase and fructose diphosphatase. For statistical processing STATISTICA 6.0 and MS Excel XR application package were used.

Results: In patients with GP I-II stage was a decrease in the content of oxidative and an increase in the content of reducing nicotinamide coenzymes with simultaneous changes in the direction of growth ($p < 0,05$) of ratio SH/SS groups (0, 88±0.03, 1.01±0.01, 1.22±0.05 and 0.70±0.02) and decrease ($P < 0.05$) of ratio NAD/NAD•H (0.62±0.01, 0.35±0.02, 0.08±0.01 and 0.80±0.03), indicating the development of compensated metabolic acidosis. Reducing the oxidative properties of OF with age is confirmed by a significant decrease ($p<0.05$) in activity of pyruvate kinase to 11.1±0.3 nmol/s/ml, 7.3±0.6 nmol/s/ml and 1.5±0.1 nmol/s/ml against the index of subjects in the IV group - 14.9±0.7 nmol/s/ml and an increase in activity of fructose diphosphatase to 1.39±0.02 nmol/s/ml, 1.82±0,04 nmol/s/ml and 2.35±0.03 nmol/s/ml versus the index of subjects in IV group 1.09±0.05 nmol/s/ml.

Conclusion: The peculiarities of the oxidative-reducing properties of OF in elderly patients with GP I-II stage are associated with an increase of signs of compensated metabolic acidosis, indicating the need to strengthen local anti-inflammatory treatment with additional oral application of a complex of vitamins with antioxidants and Omega 3.

Biography

Pavlenko Ella is Postgraduate student of the Department of Therapeutic Dentistry at the Institute of Dentistry of National Medical Academy of Postgraduate Education named after P. L. Shupyk, member of UPO "Ukrainian society of periodontists", associate member of the European Federation of Periodontology. The author of 25 scientific works, of which 2 patents.

Influence of Mmp 20 Gene Polymorphism in the Development of Erosion of Teeth in Young People

Turianska Natalia
Shupyk National Medical Academy of Postgraduate Education, Ukraine

Introduction: The peculiarity of dental status of youth is high prevalence of caries, erosion of teeth and periodontal tissues diseases. The role of genetic factors in formation of physicochemical and morphological properties of enamel of tooth is known, which makes it possible to consider that the role of heredity in development of caries and erosion of teeth is essential (Gorbunova I.L. 2016). Among the informative genetic markers are number of polymorphisms of MMP-20 gene, which encodes the formation of an enzyme-calcium-dependent proteinase, which affects the formation of organic matrix enamel.

Methods: As a result of dental survey, 60 students aged 17-20 years are divided into groups: I (n=20) - caries on the background of periodontal tissues diseases; II (n=21) - erosion on the background of periodontal tissues diseases; III (n = 19) - erosion on the background of intact periodontium. To conduct a molecular genetic study for determining the presence of MMP-20 gene, epithelium from the inner surface of the cheeks was taken in all subjects.

Statistical analysis was conducted using Microsoft Office Excel applications.

Results: Significant differences ($p < 0.05$) were observed for MMP20 gene. Comparison of groups I and III revealed differences for genotype TT ($\chi2 = 3,12$, $p = 0.077$, OR = 0.25, 95CI%: 0.07-0.94). The presence of allele C in homozygous state leads to a 3-fold increase of risk of teeth erosion on the background of intact periodontium ($\chi2 = 4.55$, $p = 0.033$, OR = 3.43, 95CI%: 1.21-9.69). In the comparative analysis of groups I and III, the protective effect of genotype AA ($\chi2 = 6,12$, $p = 0,013$, OR = 0,07, 95CI%: 0,01-0,61) and negative effect of allele C on the risk of erosion on the background of intact periodontium increased 3 times ($\chi2 = 5.16$, $p = 0.023$, OR = 3.21 95CI%: 1.27-8.10). The protective effect of AA genotype of MMP20 gene to the development of erosion on the background of periodontal tissue diseases was established ($\chi2 = 4.88$, $p = 0.027$, OR = 0.13, 95CI%: 0.02-0.71).

Conclusion: The presence in the buccal epithelium of AA genotype of MMP20 gene prevents the development of teeth erosion, and the presence of TT genotype of MMP20 gene indicates the possibility of predicting the emergence of erosions in young people and the formation of a risk group on the development of this pathology of hard tissues of the tooth.

Biography

Turianska Natalia is Postgraduate student of the Department of Therapeutic Dentistry at the Institute of Dentistry of NMAPE, member of UPO " Ukrainian society of periodontists", associate member of the European Federation of Periodontology. The author of 8 scientific works. Scientific direction- diagnosis, treatment and prevention of periodontal. Study of the risk factors for teeth erosion, in particular the study of the impact of gene polymorphisms on the risk of these diseases.

Single-Cell Systemic Immune Profile of Chronic Periodontitis

Dyani Gaudilliere
Stanford University School of Medicine, USA

Introduction: Chronic Periodontitis (ChP) is a highly prevalent inflammatory disease affecting almost half of the population in the United States. ChP produces a profound local inflammatory response that leads to the destruction of alveolar bone and eventual tooth loss. ChP is also associated with multiple systemic illnesses including cardiovascular disease, malignancies, and adverse pregnancy outcomes. However, the immunological mechanisms underlying the systemic consequences of ChP are poorly understood.

Methods: In this prospective study, we performed the deep longitudinal analysis of peripheral immune responses in 28 patients with and without ChP, including a clinical intervention and longitudinal analysis for a subset of 16 patients. Using a 45-parameter mass cytometry immunoassay, systemic alterations in immune cell distribution and associated intracellular signaling responses were simultaneously quantified in whole blood samples from patients with ChP patients at baseline and after standard periodontal treatment (SRP and home hygiene).

Results: A high-dimensional cell-signaling based Elastic Net analysis of immune signaling networks revealed immune-system wide dysfunctions associated with ChP ($p = 1.673 \times 10\text{-}4$), including increased neutrophil and monocyte responses to P. Gingivalis-derived LPS and dampened natural killer cell responses to TNFα interleukins IL-2,4, and 6 and GM-CSF. Importantly, the peripheral immune responses associated with ChP before treatment no longer differentiated patients from controls three weeks after periodontal treatment, highlighting the remarkable plasticity of the human peripheral immune system to respond to a localized intervention.

Conclusion: These findings demarcate a peripheral immune signature specific to ChP, and highlight potential immunological mechanisms that can be targeted to prevent the local progression of ChP and its systemic consequences.

Biography

Dr. Gaudilliere graduated from Stanford University with an undergraduate degree in Human Biology. She then completed her dental degree at Harvard School of Dental Medicine followed by a Hospital-based General Practice Residency at University of California, San Francisco. Her Master's Degree in Public Health was completed at the University of California, Berkeley. This was followed by a Clinical Instructorship in the Oral Medicine & Maxillofacial Surgery service at Stanford University Medical Center. Currently an attending Hospital Dentist and Dental Oncologist, Dr. Gaudilliere's clinical practice is focused on oral infection control and dentoalveolar surgery in medically complex populations, including patients with dentoalveolar trauma and those undergoing cardiac surgery, organ transplantation, or cancer therapy. Her research focuses on studying immunology to treat disease and improve outcomes, as well as studying oral surgical education techniques and implant ology. She has worked on several projects using Mass Cytometer (CyTOF) analysis of clinical samples, including immunology projects involving systems level analysis of immunological adaptations to pregnancy, which epidemiological studies show can be altered by oral disease. By studying the immunology of chronic periodontitis, she hopes to find meaningful links between the systemic immune changes caused by periodontal pathogens and complications such as cardiovascular disease and preterm birth.

Oral Health

Evelyn Gopez
University of Utah, USA

Oral health is integral to the overall health and well-being of individuals and communities. It encompasses much more than just health teeth. Oral health affects our ability to speak, smile, eat, self-esteem, school performance, attendance at work and school and our ability to show emotions. 1 Although considerable progress has been made overall in oral health, many groups experience a "severe and disproportionate burden" of oral diseases.4 These disparities vary by race and ethnicity, socio-economic status, age, gender and geography.1,4,5

Oral health Disparities are often a manifestation of underlying disparities in access to care influenced by social, economic, and environmental determinants. Addressing access to care issues through the social determinant of health is one way to begin addressing oral health disparities.

In this talk, we will learn how the state of Utah and its Office of Health Disparity, partnered with the State of Partnership Initiative (SPI) to address health disparities.

Biography

Evelyn V. Gopez M.D. is the Associate Dean for Inclusion and Outreach in the School of Medicine from June 2012 - current. Her programs and initiatives are aimed to encourage and motivate young students to go to higher education, to improve the diversity amongst faculty, staff and students in the Health Sciences and to promote awareness, understanding and acceptance of diversity and inclusion. Dr. Gopez obtained her medical degree from the University of Santo Tomas in Manila Philippines. She did her residency in Anatomic and Clinical Pathology at the Berkshire Medical Center, then went to the University of Pennsylvania where she did two fellowships: Cytopathology and Surgical Pathology. After her fellowship she stayed at the University of Pennsylvania for one more year as junior faculty. The University of Utah recruited Dr. Gopez in 1997 in the Department of Pathology. Her responsibilities included teaching Cytopathology to medical students and Pathology residents and fellows. She also performs fine needle aspiration (FNA) in addition to teaching and supervising residents and fellows in the performance of the procedure. She was the Residency Program Director for Pathology from 2005 – 2012 and the Medical Director of the Cytology Laboratory at ARUP 2009 – 2012.

Transferring Professional Knowledge in a Humanistic Way

Mary Jacobs
College of Lake County, USA

Introduction: The past decade has been marked by a trend in healthcare education to move from a behavioral form of teaching and learning toward an educational process grounded in humanism. The accrediting body for dental education calls for institutions to provide a humanistic environment characterized by respect, tolerance, understanding, and concern for others; however, there is limited access to teaching knowledge regarding what humanistic pedagogy looks like. The central research question of this study is, "In what ways do clinical dental hygiene instructors situate the humanistic paradigm?"

Methods: The research was guided thorough the qualitative method of interpretive description. This method recognizes that the clinical mind tends not to be satisfied with pure description, but rather seeks to discover associations, relationships, and patterns within a phenomenon of interest. Two in-depth interviews were conducted with 12 clinical dental hygiene instructors from community colleges in the Midwest region of the United States. Data were analyzed using the constant comparative method with theoretical underpinnings of symbolic interactionism.

Results: Findings were organized into three major constructs: empathic understanding, thoughtfulness and tact, and pedagogical influence. Empathy was found to be a dynamic process undergirded with mutual respect and a consideration that the learner brings their whole person (body, mind, spirit, life-history) to the learning event. Instructor's confidence in their course of action was an interpretive process manifesting through both self-indication and interaction with other instructors. Participants viewed pedagogy as an act that is carried out in the practical and reflective moments of teaching. Pedagogical influence was characterized as shaping student's growth as professionals stemming from the instructor's personal socialization as a Dental Hygienist.

Conclusion: Results of the study provide a conceptual framework for exploring a shift toward humanistic education in healthcare.

Biography

Mary Jacobs is a Professor of Dental Hygiene at the College of Lake County located in Waukegan, Illinois where she teaches both in the didactic and clinical setting. Mary is a 1984 graduate of Harper College's Dental Hygiene program. She received a Bachelor of Science Degree in Dental Hygiene in 1988 from Northwestern University, a Master's Degree in Education from the University of Illinois in 2010, and a Doctorate in Education from Northern Illinois University in 2016. Mary's dissertation titled: Situating the Humanistic Paradigm in Clinical Dental Hygiene: Empathic Understanding, Thoughtfulness and Tact, and Pedagogical Influence was published in February, 2017. Mary's perspective on clinical teaching stems from her experiences as a dental hygienist, researcher, scholar, and dental educator. Her professional focus is centered on the training and inspiration of educators who seek to create a humanistic learning environment for their students.

Management of Osteoradionecrosis by Tissue Bio-Engineering

Subhagata Chakraborty
Manipal College of Dental Sciences, India

Osteoradionecrosis is one of the major debilitating conditions of the head and neck region post radiotherapy with an incidence rate of 4–8%. The treatment protocol for ORN choices from hyperbaric oxygen therapy to a combined therapy of pentoxyfylline and tocopherol. The surgical management is based on the Marx protocol involving aggressive wound debridement to resection of jaw. Tissue bioengineering is the use of cells, suitable biochemical and physicochemical factors to improve or replace biological tissues. PRF and statins, individually, constitute an important role in bone regeneration and healing of extraction sockets. Platelet rich fibrin (PRF) is the portion of blood containing the concentrate of platelets which are rich in mitogenic growth factors (GF) such as platelet derived growth factors (PDGFs), transforming growth factor beta TGF-β, epidermal growth factor EGF, insulin like growth factor IGF and vascular endothelial growth factor VEGF. Statins on the other hand , also known as HMG-CoA reductase inhibitors, mainly acts by inhibition of the mevalonate pathway. Considering hypocellularity as one of the important features of the site receiving radiotherapy, a blend of PRF and simvastatin can be helpful in the healing of non-extraction sockets. Presenting to you a review of cases in the management of Stage I Osteoradionecrosis.

Biography

Dr Subhagata Chakraborty has passed his MDS degree from Manipal Academy of Higher Education , Mangalore, India. He is an expert surgeon in the field of Maxillofacial trauma, maxillofacial pathology and head and neck cancer. He has numerous publications in the reputed International and National joirnals. He is also a reviewer of some famous national journals. He is currently a practicing Maxillofacial surgeon in his native place and is attached to various hospitals of repute.

Psycho-Social Adjustments among Adolescents with Craniofacial Conditions and the Influence of Social Factors: A Multi-Informant Study

Rany Bous
Case Western Reserve University, USA

Institutions: (1) Case Western Reserve University School of Dental Medicine, Cleveland, OH, (2) Case Western Reserve University School of Medicine, Cleveland, OH, (3) University Hospitals Cleveland Medical Center Rainbow Babies & Children's Hospital, Cleveland, OH

Background/Purpose: Numerous studies have investigated psychosocial adjustment levels among adolescents with cleft lip and/or palate (CL/P) but our understanding of other craniofacial conditions remains to be scarce. The primary purpose of the current study is to compare psychosocial adjustments among three groups of adolescents: 1-craniofacial conditions other than cleft lip and/or palate (CFA), 2- cleft lip and/or palate (CL/P), and 3-controls(CON). Our second objective is to identify the influence of social factors on the adjustment levels.

Methods/Description:

Study design: cross-sectional, multi-informant, controlled survey study.

A total of 146 participants were recruited into this study as follows; 1- CFA group (craniofacial conditions excluding isolated cleft lip and/or palate) (n=49), 2- CL/P group (isolated cleft lip and/or palate) (n=42), and 3- CON group (n=55).

We included adolescents aged 11-17 years old, and excluded subjects that were considered by their parents to be developmentally unfit to complete the questionnaire.

We attempted to collect three versions of the SDQ for each subject: parent, teacher, and self-reports.

The influence of the following social factors on the psycho-social coping was analyzed: 1- Number of parents in the household, 2- Number of siblings, 3- Frequency of being bullied, and 4- Having a good friend

Results: All three informant groups displayed similar patterns, where CFA reported the highest difficulty scores, followed by CL/P, while CON scored the lowest. Parent reports showed that CFA scored significantly higher than CON for the total difficulties and most subscales ($p=<0.001$), while CL/P scored higher than CON ($p=0.016$) and lower than CFA ($p=0.027$) for total difficulties and peer problems ($p=<0.05$). According to teacher and self-reports, CFA scored higher than CON for the total difficulties ($p=<0.05$) and peer problems ($p=<0.01$), while CLP scored higher than CON for peer problems only ($p=0.011$). CFA displayed a significantly higher frequency of abnormal psychosocial adjustments (34.7%), compared to 17% among CL/P, and only 3.8% among CON ($p=0.001$), indicating a greater risk of developing psychopathologies among this population.

The frequency of being bullied showed a significant positive correlation to the total difficulty scores ($p=<0.001$) while having a good friend showed an inverse relationship ($p=<0.001$). However, the number of parents in the household or the number of siblings were not significant predictors. The four examined factors explained 44.2% of the variance.

Conclusions: Adolescents with CFA reportedly had the highest difficulty scores, followed by CL/P, while CON had the lowest scores, highlighting the greater risk of having psychological problems among this population. The differences were most significant at the peer problems subscale.

Social factors, especially being bullied or having a good friend, could significantly influence the psychosocial adjustment levels, highlighting the influence of peer relationships on the psychosocial well-being.

Biography

I was born in Egypt, where I attended dental school at Cairo University, and graduated in 2011 with a BDS degree. Throughout dental school, I found a passion for orthodontics and decided to pursue a residency program in the United States to take my education a step further. After working as an orthodontic assistant and trainee in Egypt and serving in the Egyptian military for a brief period, I started a fellowship in orthodontics at Case Western Reserve University. The fellowship program broadened my horizons, provided me with a solid foundation of knowledge, an extensive clinical training and research experience. Right after my fellowship ended, in 2015, I joined the orthodontics residency program at Case Western Reserve University, which had been a dream come true. Throughout this period, I collaborated on many research projects, mostly with a focus on utilizing CBCT scans to help gain a better understanding of the transverse dimension in orthodontic patients. As I developed an interest in human psychology and patients with craniofacial conditions, the focus of my Master's thesis was to evaluate the psychosocial adjustments among teenagers with craniofacial conditions, and try to identify some social factors that could impact their adjustment levels. I am currently pursuing a Fellowship in Craniofacial Orthodontics, which would help me work more closely with the affected individuals and be part of a craniofacial team.

Updated biotechnological aspects in oral & maxillofacial rehabilitation

Boukhari Amin
Rambam Health Care Campus, Israel

In our modern times the advancement of new biotechnological aspects in dental practice increase day by day. One of those biotechnological aspects is the Digital dentistry who refers to the development of new tools and the replacement of outdated techniques in order to improve overall patient experience and outcomes.

During our lecture will see together how to exploit this advantage progress and how it can influence our common sense when it comes to determine the final prosthetic treatment plan.

Biography

Dr. Boukhari Amin (DDS. MSD.) is a specialist in oral & maxillofacial rehabilitation, Senior Clinician & Lecturer at the Maxillofacial Rehabilitation department & the Temporomandibular joint disorders unit at the Rambam Health care Campus – Haifa, Israel. Dr. Boukhari is graduated from the faculty of Dental Surgery of the Montpellier I University, Montpellier, France, 1991. He specialized in Oral Rehabilitation at the Tel-Aviv University, Tel-Aviv, Israel, 2005. He published articles in national & international manuscripts in oral & maxillofacial prosthodontics & Implant Dentistry. Recently he is leading research in maxillofacial prosthodontics, especially in the development of brachytherapy devices for the head & neck oncologic patient treatment at the Rambam hospital, Israel. He is a member in many national & international professional associations in the field of oral & maxillofacial medicine.

3D printing technique to fabricate chair-side dental restorations

PirkkoLiisa Tarvonen
University of Eastern Finland, Finland

Dental caries remains as one of the main health problems globally. Direct filling technique with composite has several shortcomings. Especially large fillings in lower posterior teeth are challenging. Indirect restorations are developed to overcome the challenges linked with direct restorations. Chairside subtractive CAD/CAM (computer-aided design and computer-aided manufacturing) milling technology has been generalized along with the expanding role of digitalization, but these solutions are so far expensive. Additive CAD/CAM technology has been used in dental labs to fabricate different appliances like splints, surgical guides, removable dentures, frames for crowns and bridges as well as facial prostheses, and chairside to fabricate orthodontic aligners.

RAYO 3DToothFill is a novel technique for fabrication of indirect dental restorations. This concept is based on modern 3D manufacturing techniques, digital imaging and 3D printing to fabricate the filling during a single visit to a clinic. It includes preparation of a tooth, tooth imaging, automated filling processing outside the mouth and fixation of the filling on the tooth. Based on an in vitro study carried out in University of Eastern Finland, Kuopio, Finland, the accuracy of 3D printing technique overcomes that of milling technique in the fabrication of dental inlay and onlay fillings. Major advantages compared to current solutions in addition to accuracy of the restoration include lower cost, possibility to layering and tailoring properties, suitability for existing filling materials and material use efficiency. The project is devoted to preparation of commercialization. Additional clinical investigations are planned to carry out during 2019 to confirm the findings. This 3D printing technique has been developed by a team of professors and experts from the University of Eastern Finland and University of Oulu. International patent pending.

Biography

Dr. Pirkko-Liisa Tarvonen graduated and specialized in public health care at University of Turku, Finland. With thirty years of experience in dental public health, she works as Senior Dental Officer at University Dental Clinic in Helsinki, Finland. She has also gained experience as project coordinator to develop patient classification model and to organize out-of-hours emergency oral health care as well as national information systems for oral health care. Since 2007, she has worked voluntarily as project coordinator in a development collaboration project to support primary oral health care and dental education in Democratic People's Republic of Korea.

A protocol for the management of ankylotic root resorption following dental trauma

Shaul Lin
Rambam Health Care Campus, Israel

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

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

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

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

Biography

Dr. Shaul Lin is a graduate of the School of Dentistry at Tel-Aviv University, where he also completed a residency in Endodontics and was an instructor in the Endodontics Department. Dr. Lin currently serves as the Director of the Department of Endodontics, and as the Director of the Endodontics and Dental Trauma Residency program in the School of Dentistry at Rambam Health Care Campus.

DAY 2

Keynote Speakers

DENTISTRY AND ORAL HEALTH SUMMIT

May 27-28, 2019
Rome, Italy

DOHS-2019

The Rising Importance of YouTube in Education on Orthodontics

Aylin Pasaoglu

Beykent University, Turkey

The objective of this study was to systematically assess the informational value, intention, source, and bias of videos related to orthodontics and education on orthodontics available on the video-sharing Internet platform YouTube. YouTube (www.youtube.com) was searched for videos related to education on orthodontics, using the system-generated sorts "by relevance". The first 120 results was rated by assessor filling out a questionnaire for each (total: 120). The data were subjected to statistical analysis using, Pearson's correlation coefficient tau, Mann-Whitney U-tests, and a nonparametric three-way ANOVA, including an analysis of the interaction between the sorting and category effect, with an α-level of 5 percent. The analysis revealed a wide variety of information about orthodontics and education on orthodontics available on YouTube. The purpose of these videos includes entertainment, advertising, and education. The videos classified under education have a higher degree of usefulness and informational value for laypersons, dental students, and dental professionals than those found in a broader search category. YouTube and similar social media websites offer new educational possibilities that are currently both underdeveloped and underestimated in terms of their potential value. Dentists and dental educators should also recognize the importance of these websites in shaping public opinion about their profession.

Biography

Aylin Pasaoglu Bozkurt, is an associate of professor at Beykent University, Department of Orthodontics, Istanbul. She obtained her PhD degree at Ege University Dentistry Faculty Department of Orthodontics. Her research interests are different treatment methods used in orthodontics. She is author of several articles in international journals.

Biomimetics-Making Composite Restorations Last Longer

Joseph Heher

University of Maryland, USA

The reality is that we dentists now have a dental material which if applied carefully can invisibly and conservatively mimic natural tooth structure. While the material is incredibly technique sensitive, a basic understanding of the material's properties and how it acts upon curing, can greatly enhance a restoration's longevity. Most dentists have some idea of these properties, yet surprisingly many don't utilize them, often leading to "hit or miss" results in the long term. Compensating for the "negative "aspects of composite's physics and enhancing of the "positive "aspects are relatively simple procedures, but somewhat time-consuming. In the time allotted I will discuss some of these factors that will enhance restorations longevity.

Biography

Dr. Heher after receiving his doctorate in dentistry degree from the University of Maryland's Baltimore College of Dental Surgery, he devoted three years of service to his country as a Naval Dental Officer at the U.S. Naval Station on Guam and the Marine Corps Headquarters in Washington, D.C. He began his private practice in Salisbury, MD after completing his military service. Continued professional study helps Dr. Heher remain at the forefront of modern dentistry. He has taken thousands of hours of post-graduate training both nationally and internationally in cosmetic dentistry, sleep disorder therapy, alleviation of dental apprehension, restorative dentistry, nonsurgical periodontal therapy, cranial osteopathy, preventive dentistry, and nutrition. Dr. Heher is highly skilled in many aspects of modern dentistry including preventive, general, cosmetic, restorative, and advanced treatments.

DAY 2

Oral Presenations

DENTISTRY AND ORAL HEALTH SUMMIT

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A Biological Approach to Dental Hygiene

Carol Wells
Hamilton & District Dental Hygienists, Canada

Dentistry is changing on a daily basis.

We know that periodontal disease causes infection in the oral cavity.

Infection = inflammation. Inflammation = Disease. This infection/inflammation can be carried throughout the body. Current research on Periodontal Disease is aware of the connection between inflammation in the oral cavity and diseases of the body. This type of disease process sets up the Oral Systemic Connection. Patients are becoming aware of the Oral Systemic Connection. They hear it from the media and are able to do their own research now, searching for different modalities of treatment, on the net. They are searching for dental offices that meet their needs – to become healthier.

With the use of a phase contrast microscope combined with ozone therapy we can target the disease related bacteria that contribute to periodontal disease. With the focus on health, it is time for a paradigm shift, to help our patient become healthier.

Biography

Carol Wells is a Registered Dental Hygienist in Ontario, Canada. She qualified as a hygienist in 1977. She is affiliated with many professional bodies including the Canadian Dental Hygienist's Association, and also held the role of President of the Hamilton & District Dental Hygienists' Society. Carol has passion for preventative dentistry and a special interest in the oral systemic link.

Perceptions, Knowledge and Attitudes of Latin-American Health Practitioners Regarding Oral Health in Pregnant Women

Jairo Corchuelo
Universidad del Vall, Colombia

Introduction: In the Latin American region, there is little data regarding the level of knowledge provided to the healthcare professionals incharge of caring for pregnant women during their basic and graduate training. The knowledge provided during continuing education processes, are needed in order to promote work in multi-disciplinary teams to facilitate comprehensive care for women during this stage. The purpose of this study was identify perceptions, attitudes and knowledge gaps regarding oral health in pregnancy among obstetricians and gynaecologists and health-care practitioners in Latin America.

Materials and Methods: Cross-sectional study of specialists in obstetrics and gynaecology, residents, general practitioners and professional nurses. Simple random sampling from a base sample of 680 healthcare practitioners. The sample size was calculated at 103 subjects, with a 95% confidence level, a knowledge prevalence of 65%, and a 10% accuracy. A self-administered questionnaire especially designed on the basis of previous studies was used. Sociodemographic characteristics, knowledge, attitudes and perceptions were measured.

Results: Of 103 professionals selected, there was a total of 84 respondents: obstetricians and gynaecologists (53.6%), general practitioners (23.8%), registered nurses (16.7%) and graduate students of the obstetrics and gynaecology specialty (6%). There was information available from practitioners in 13 out of 19 countries. Of them, 57.1% had not received any training in oral diseases. Of the respondents, 20% had a high level of knowledge, and 25% had a positive attitude.

Conclusion: There are knowledge gaps among the different practitioners surveyed regarding oral health in pregnant women. Training and team work are recommended.

Key words: Prenatal care, oral health, primary healthcare, knowledge, oral diagnosis, attitude.

Biography

Professor of the School of Dentistry of the Universidad del Valle, Director of Regionalization of the same University. Doctor in Public Health Sciences from the University of Guadalajara (Mexico). 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.

Moxifloxacin: An Ideal Candidate Adjunctive Antibiotic for using in Association with Scaling and Root Planning in Treating Periodontitis

Carlos Martin Ardila Medina
Universidad de Antioquia School of Dentistry, Colombia

The adjunctive use of systemically administered antibiotics has been shown to provide a better clinical outcome, particularly in terms of probing depth reduction and attachment-level gain than scaling and root planning (SRP) in subjects with aggressive periodontitis (GAP). Scarce studies have looked at the microbiology and clinical efficacy of moxifloxacin as adjunctive therapy in periodontitis.

Interestingly, Ardila et al. (2010, 2015) suggested that moxifloxacin (MOX) has potent antibacterial activity against periodontal pathogens, higher than that of metronidazole and amoxicillin. Moreover, in earlier randomized clinical trials MOX has shown microbiological and clinical efficacy in chronic periodontitis (Flemmig et al. 2011, Guentsch et al. 2008). The properties of MOX have been studied, showing excellent bioavailability, long half-life and good tissue penetration of this drug (Cachovan et al. 2009), and it has an excellent tolerability (Guentsch et al. 2008). In addition, given the high incidence of hypersensitivity reactions to beta-lactam antibiotics, the use of MOX might represent a therapeutic alternative (Bozkurt et al. 2005). Nevertheless, because of the wide use of these drugs, the number of quinolone-resistant bacterial strains has been growing steadily since the 1990s (Aldred et al. 2014), but this problem is not relevant in periodontics due to the limited use at the moment.

On the other hand, the pharmacokinetic properties of MOX allow a single dose treatment per day. This reduces costs and enhances the patient's compliance (Krasemann et al. 2001). This is an important fact, because incomplete adherence to a 7-day adjunctive course of systemic antibiotics is associated with decreased clinical outcomes in GAP (Guerrero et al. 2007). The above properties appear to make MOX an ideal candidate adjunctive antibiotic for using in association with SRP in treating GAgP.

Biography

Carlos M. Ardila has completed his PhD from Universidad de Antioquia. He is the coordinator of the Biomedical Stomatology Research Group, a group that is ranked in the highest category in Colombia. He has published more than 100 papers in indexed journals and has been serving as an editorial board member and reviewer in reputed journals.

Polymorphism of Tongue Taste Receptors Gene Might Play a Critical Role in Prediction of Type 2 Diabetes

Hila Yousefi
Tehran University of Medical Sciences, Iran

It has been well understood that type 2 diabetes (T2D) is a multifactorial disease. Obesity, nonhealthy diet, and tobacco use are the major risk factors of the disease. These findings leave open the possibility of the augmented efficacy of genetic variations related to lifestyle changes, especially diet habits. To meet this hypothesis data were collected from a variety of studies in various fields. It has been well established that variations in sweet/bitter taste receptor's genes play a pivotal role in more sweet food intake and dietary behavior, leading to higher risk of metabolic impairment and diseases such as obesity. Studies have shown a significant association between genetic variation of bitter taste receptor and the frequency of cigarette smoking. Studies on children indicated that sensitivity to bitterness set the stage for more consumption of sweets. Hypersensitivity to bitterness could also avoid individuals from a healthy diet. Moreover, the significant direct contribution of activation of bitter taste receptor to glucagon-like peptide1(GLP-1) secretion has been detected, which lowers blood glucose level. It has been illustrated that GLP-1 signaling normally acts to maintain/enhance sweet taste. Given such multifaceted roles of bitter/sweet taste receptors in the development of risk factors for T2D, more precise understanding of their genotype-phenotype interactions will strengthen future predictive/preventive medicine for T2D. To meet this gap while the genotype-phenotype associations are being studied it should be taken into consideration that subjective pleasure of eating sweets/bitters should be asked from both case and control groups.

Biography

Hila Yousefi has completed her Degree in Dentistry and Surgery (DDS) and now she is a research associate in Personalized Medicine Research Center, Endocrinology and Metabolism Clinical Sciences Institute, Tehran University of Medical Sciences. She has published more than 10 papers in prestigious journals while she was an undergraduate student. Following her passion in innovation in science, she is now a patent holder and also holds theories in the field of medical sciences. Dr. Yousefi is the idea holder of international projects, and she is well known in the research team as the holder of innovative scientific ideas.

Laser Therapy and Clinical Treatment of Temporomandibular disorders

Vesna Karic
WITS University, South Africa

Objectives: The objective of this review is to provide practitioners with updated information about laser therapy and photobiomodulation of stem cells, as an alternative method for the treatment of temporomandibular disorders (TMD).

Data: The authors searched ''PUBMED' 'to discover relevant literature written in English on the subject of temporomandibular disorders, basic and conventional treatment techniques, and photobiomodulation of stem cells used in tissue engineering. The following key words were used in combination: ''tissue engineering in temporomandibular joint (TMJ)'',''approaches'', 'strategies'', "laser therapy of TMD", "TMJ disc tissue engineering", "temporomandibular disorder treatments", "photobiomodulation of stem cells".

Sources: Abstracts, full text articles and books were used to compile this review. Information on causes of temporomandibular disorders and loss of temporomandibular joint tissue, different approaches to treatment were investigated.

Selection: Only those articles that dealt with the temporomandibular disorder signs, symptoms, treatment, laser therapy and photobiomodulation of stem cells and tissue engineering of TMJ where selected.

Conclusion: There has been a recent surge in research around the use of laser therapy in the treatment of temporomandibular disorder. However, very little has been explored in the area of influence of laser therapy on the stem cells. Future research will widen the spectrum of studies in this direction with purpose of providing a better treatment option to patients.

Clinical significance: Laser therapy as an alternative in the treatment of temporomandibular disorders has broth novel treatment to TMD patients with immediate pain relief and possible regeneration of damaged tissue.

Keywords: Laser therapy, Tissue engineering, Temporomandibular joint, Temporomandibular disorder, Photobiomodulation, Stem cells.

Biography

Dr V Karic mother of three children and wife of J Alexander, Senior Lecturer, BDS (BGD, Serbia), MSc Dent (WITS), P. h. D candidate(Biomedical Technology in Lasers and Stem cells, Laser Research Centre, Faculty of Health Sciences, University of Johannesburg), Mastership, Laser therapy in Dentistry, Aachen University, Germany (2017), Health Sciences Educational Postgraduate Diploma(2018)

HOD, Division of Laser therapy in Dentistry, Dental Neural Sciences, TMJ clinic

Total mandibular reconstruction with total custom titanium prosthesis in segmented microvascular fibula

Wagner Breit
Maxillo Facial Surgeon in Brazilian Army, Brazil

The objective of this work is to show a new surgical protocol in high complexity reconstructions in the mandibular skeleton, predicting more stable results and a greater chance of rehabilitation with integrable bone implants.

This surgical case is the first made in the world. Until then, we only have cases of the most varied types of mandibular reconstructions, either micro-vascularized, or autogenous grafts isolated or with plaques of reconstruction, not guaranteeing a stable long-term result for the patient mutilated by extensive segmentations caused by benign or malignant oral pathology .

Therefore, in this particular case, it shows a case of a patient with extensive ameloblastoma, who in a first surgical phase, was performed full mandibulectomy with a wide margin of safety and microvascular fibular graft with green-breasted fibular segmentation, grafted bone graft interposition bioss, rhBMP-2 and osteosynthesis with miniplates and 2.0 screws.

After a few months after surgery, the appearance of the microvascular fibular graft was morphologically in poor position, with vertical height exaggerated due to the high degree of angulation of the fibula, fibrosis in the stumps grafted with, bone instability to withstand chewing forces for future rehabilitation with osseointegrated implants.

Therefore, a new surgery, with extra-oral access, segmentation of the fibular graft in specific areas and studied in virtual planning and manufacture of the total mandibular prosthesis in custom titanium, with height and mandibular shape, thicknesses at strategic locations as a zone of traction and compression, as well as to predict the exact locations for placement of the implants and their complete rehabilitation.

Biography

Wagner Breit is a facial maxillo surgeon, works with facial deformities, temporo mandibular joint surgery, maxilo-mandibular complex reconstructions and palatine cleft. Works in the Brazilian Army. Also is a surgical consultant. Works with customized prosthesis in temporo mandibular joint. Its direct studies for the treatment of articular disorders, in addition to working in face complex traumatism for fire weapher injury.

The Remission of the Prenatal Control Program, A Key Factor in the Assistance of Pregnant Women to Dentistry

Jairo Corchuelo
Universidad del Vall, Colombia

Introduction: In the Latin American region, there is Little data regarding the level of knowledge provided to the healthcare professionals incharge of caring for pregnant women during their basic and graduate training. The knowledge provided during continuing education processes, are needed in order to promote work in multi-disciplinary teams to facilitate comprehensive care for women during this stage. The purpose of this study was identify perceptions, attitudes and knowledge gaps regarding oral health in pregnancy among obstetricians and gynaecologists and health-care practitioners in Latin America.

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Investigation of the Effect of Er:Cr:Ysgg Laser 2780 nm in Comparison with xp-Endo Finisher on Root Canal Dentin Permeability and Smear Layer Removal: An In Vitro Study

Ruaa M.Al-Mafrachi
University of Baghdad, Iraq

The aim of this study was to assess the effect of Er:Cr:YSGG 2780nm laser in comparison with Xp-endo Finisher in elimination of smear layer in terms of root canal dentin permeability and SEM analysis. Method: twenty-eight single-rooted extracted lower premolars were instrumented up to size X4 (protaper Next, Dentsaply) and divided into two groups according to the irrigation system, first group activated by Xp-endo Finisher and second one by Er:Cr:YSGG laser 2780 nm, pulsed mode, 1.25 W. Afterward, the roots were made externally impermeable, filled with 2% methylene blue dye, divided horizontally into three segments representing the apical, middle, and coronal thirds then examined under stereomicroscope. Using analytical software, the root section area and dye penetration area were measured, and then, the percentage of net dye penetration area was calculated. Moreover, scanning electron microscope investigations were accomplished.

Results: The non-parametric Mann-Whitney U test was done and showed a highly significant difference between the two experimental groups over the three root thirds. Dye penetration in Erbium laser group was significantly higher over the whole root length compared to other group. Scanning electron micrographs of Erbium laser group showed a distinctive removal of smear layer with preservation of the annular structure of dentinal tubules, while Xp-endo finisher group result in uneven removal of smear layer, and the dentinal tubules appear in sickle shape which indicate that they are partially opens especially in the apical third.

Biography

Ruaa got a Bachelor degree B.D.S at the age of 23 years from Baghdad University/ college of dentistry, and then she completed a rotation residency at Al-Karama specialized dental center. After that, she was worked at Iraqi ministry of health till 2014. Later on she was completed a master degree in laser sciences in dentistry from Institute of Laser for Postgraduate Studies/ Baghdad University and now she is an assistant lecturer at Uruk university/ college of dentistry. She has published 3 papers in different journals.

The Oral Manifestations of Psychiatric Disorders

Bahaa Aldin Alhaffar
Damascus University, Syrian Arab Republic

Background: Many studies showed that oral diseases are very common among psychiatric patients and they are usually a result of bad oral hygiene and other factors related to the pharmacokinetics of the psychotropic medications. The aim of this study was to evaluate the prevalence of oral manifestations among mental disorder patients taking into consideration the type of psychiatric disorder and psychotropic medications intake behavior.

Our aim was to study: The prevalence of oral manifestations and the relation with the mental disorder using multi-variables (the type of psychiatric disorder, the duration of intaking psychotropic medications, number of psychotropic medications, demographic variables).

Materials and Methods: A cross-sectional study on patients with psychiatric disorder. Participants were recruited from Psychiatry unit at AL-Mowasat Hospital Damascus- Syria. Specially designed charts to collect data was established including: personal and demographic data, psychiatric disorder, psychotropic medications, DMFT index, gingival index, periodontal index, TMJ disorders checklist. Mann-Whitney U test, Kruskal-Wallis test and spearman's correlation was made to find if there are any significant relations between the given variables.

Results: 46 patients (39.1% males, 60.9% females) were included in this study. The majority of the patients were diagnosed with schizophrenia (73.9%). 21.7% of the sample were taking one drug, 43.5% were on two drugs, 21.7% were on 3 drugs and 13% were on 4 or more drugs. Scores according to the number of medications intake were as follow: 1 drug (DMFT=12.2), 2 drugs (DMFT= 13.4), 3 drugs (DMFT= 17.8) and 4 or more drugs (DMFT= 20.3). A significant relation between the number of taken medications and DMFT score was found (p= 0.036). Also, a significant positive correlation was found between DMFT scores and the number of medications taken (p= 0.022). 39% of patients exhibited bruxism habit.

Conclusion: This study presents the general oral condition of the psychiatric patients. those patients had higher rates of decayed, missed of filled teeth than general population, and higher rate of gingivitis (GI) and plaque (PI). A significant relation was found between total DMFT score and gender. Also, positive correlation was found between the total DMFT score and number of medications taken by the patients. No significant relation was found between total DMFT and medication type or duration of intaking psychotropic medications or type of mental disorder.

Keywords: Oral health - psychiatric disorders - DMFT index.

Biography

Dr. Bahaa Aldin Alhaffar DDS, MSc, graduated from faculty of dental medicine - Damascus university - Syria with a DDS (doctor in dental surgery). Master in oral surgery at Saint Joseph university (USJ) Beirut - Lebanon. His work concentrates on the special manifestation of different disease especially the psychiatric disorder. Co-founder and HR manager at We Research organization for medical research since 2016. Medical research methodology trainer at Syrian Researchers Organization. Awarded the GHI conference global health award at the American university – Beirut. Published more than 6 original articles. And working currently on enhancing the osteointegration of dental implants.

Lymphatic malformation

Omar Amer Elhag
University of Gezira, Sudan

Background: lymphatic malformation (LM) is rare vascular malformations

Objective: To define the clinical characteristics of children with (LM) and their management

Methods: we performed a retrospective hospital based cross – sectional study with descriptive & analytic component using data collection sheets stating the name, age, gender and residence of the patients . Demographic and clinical features diagnostic imagining treatment and complications were recorded

Result: Nine males and eleven female patients with LM were identified the anatomical location of LM involved the right site of the neck and the lip more frequently 30% followed by the tongue and check with equal 20%. According to the consistency soft swelling presented in 11 patients 55% seven patients presented with firm 35%. According to the surface 80% smooth and 4% non smooth blue and normal skin texture were the most common color 30%, pink 20% red 10% yellowish 10%. Half of the LM found compressible according to the shape 75% diffuse in shape 25% rounded the main age was 14.8 (6 months to 49 years). Infants and children were more affected than anther age groups. Adult patients who were exposed to trauma or radiation may be at risk. Patients treated either by surgery or sclerotherapy. LM causes morbidity and death in one child.

Conclusion: LM is heterogeneous vascular malformations that may result in significant morbidity diagnosis is often delayed. And cystic hygroma is risk factor for air way obstruction Multidisciplinary approach to management including dermatology, diagnostic and interventional radiology, pediatric surgery is important.

Biography

Dr. Omar Amer Elhag Abdalla (BDS .M.D) is Assistant Professor of Oral and Maxillofacial surgery University of Gezira Faculty of Dentistry and Consultant of Oral and Maxillofacial Surgery Wad- Madani Teaching Dental Hospital Sudan. Dr. Omar Amer graduate from faculty of Dentistry University of Khartoum - Sudan and M.D of oral and maxillofacial surgery from Sudan Medical Specialization Board and fellowship from Hamburg Medical University center Germany. Dr. Omar published article in the field of oral and maxillofacial surgery. Recently he is leading research in maxillofacial surgery including TMJ and osteonecrosis of the jaw associated with anti - osteolytic drugs. He is member in many national and international professional association of oral and Maxillofacial surgery.

DAY 2

Poster

DENTISTRY AND ORAL HEALTH SUMMIT

May 27-28, 2019
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DOHS-2019

Novel Adhesive Periodontal Dressing After Flap Surgery : A Randomized Clinical Trial

Jae-Eun Chung
Seoul National University Gwanak Dental Hospital, South Korea

Introduction: The periodontal dressings are applied around the teeth and adjacent periodontal tissue to protect surgical areas, reduction of infections, pain and sensitivity after periodontal surgery. Recently developed mucous adhesive periodontal dressing (Orascar, TBM, South Korea) has strong adhesion when it is applied applied on gingiva and hydrated in oral cavity. Therefore, the present study was performed to compare the tissue response and the patient compliance of the newly developed adhesive dressing Orascar with Coe-Pak following Modified Widman Flap.

Methods: 34 subjects who show probing pocket depth more than 4mm, complete the phase I therapy, requiring periodontal flap surgery in more than 2 quadrants were involved. Orascar was applied to the randomly assigned experimental segment and the other segment was covered by COE PAK after Modified Widman Flap. 24~48 hours after the flap operation, all patients were recalled to record the postoperative pain and discomfort scores. 2 weeks after the surgery, the subjects were examined and gingival index,width of attached gingiva, gingival recession, probing pocket depth were recorded.

Results: The Orascar treated group showed a significantly ($P<0.1$) lower level of VAS than COE-PAK group. There were 2 sites that had burning sensation, 1 site showed bleeding and 4 sites had difficulties in eating of COE-PAK treated group. No site showed burning sensation, there was 1 site showed bleeding and eating difficulties each in Orascar group.

Conclusions: It may be concluded that adhesive periodontal dressing (Orascar) is easily applied, shows more esthetic appearance without unpleasant taste or smell. The clinician's personal preference as well as the patient's acceptance (eg. Postoperative pain and discomfort) are important while deciding the periodontal dressing of choice. With due consideration to the above, Orascar can be an alternative to Coe-pak as a dressing material.

Biography

Jae-Eun Chung has completed his PhD at the age of 29 years from Seoul National University School of Dentistry. She is the associate professor of Seoul National University Gwanak Dental Hospital, Department of Periodontology, associate director of academic affairs of Korean Association of Periodontology, associate director of insurance affiars of Korean Association of Oral and Maxillofacial Implantology.

Accepted Abstracts

DENTISTRY AND ORAL HEALTH SUMMIT

May 27-28, 2019
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DOHS-2019

Dental Student's Knowledge, Opinions and Practices (KOP) Regarding Sexual Behaviors and their Impact on Oral Health

Sharon L. Carter
Tennessee State University, United States

Introduction: Sexually transmitted infections often have oral manifestations and may also have important implications for oral health. However, the majority of the dental literature focuses on oral implications of individual diseases and no reviews are available that provide an overview to the full spectrum of oral conditions that are sexually based.

Objectives: To 1) review the literature with respect to sexual risk factors and their oral manifestations and, 2) to develop and validate a survey to evaluate dental professionals' understanding of the topic.

Methods: We conducted a systematic literature review to identify key systemic diseases that are influenced by sexual behaviors and used the results to develop a comprehensive survey to evaluate dental professionals understanding of the topic. We validated the survey with an expert panel that included an oral pathologist, dental public health faculty, dental health services researcher and oral epidemiologist.

Results: A total of 517 studies were identified. After removing duplicates and unrelated studies, a total of 20 full text studies were reviewed. Seventeen key diseases with an oral component linked to sexual behaviors were identified, many of which can lead to oral cancer. Additionally, a survey was developed to evaluate dentists' knowledge about these oral health conditions and associated behaviors.

Conclusions: This study finds that dental residents are unlikely to discuss patient's sexual practices (PSP) unless the patient is already displaying symptoms. The first step in solving this problem is to develop effective training, policy and practice recommendations.

Zirconomer Family Called the White Amalgams: Can They Replace Dental Amalgam as Restorative Materials?

Nagy Abdulsamee
Modern University for Technology & Information (MTI), Egypt

Dental caries has been considered as a historically important component of the global oral disease burden. Thus, the quest for an ideal restorative material with optimum physical properties and durability exists. Though amalgam has many known drawbacks, but it has been used for more than a century as a successful restorative material. Many tooth-colored materials, such as composite resins and glass ionomer cements (GICs), have evolved to replace amalgam in the recent past and solved many of amalgam drawbacks but none of them was without drawbacks.

New GIC formulations called as Zirconomer and zirconomer improved (white amalgams) are novel materials, composed of ceramic and zirconia reinforced glass ionomer cements that could overcome the drawbacks of previously used amalgam as well as other tooth-colored restorative materials. They exhibit the strength of amalgam and at the same time maintain the unique properties of GICs. The aim of the current work is to present the new zirconomer family regarding their composition, properties, mechanism of zirconia toughening, and clinical cases restored with them.

Biography

Bachelor Degree of Dental Sciences from Faculty of Dentistry, Cairo University 1975, Master Degree in Prosthodontics from Faculty of Dentistry, Alexandria University, December 1980, and PhD in Dental Biomaterials has been finished at faculty of dentistry, Alexandria University 1985. Worked as demonstrator 5/7/1976 – 21/4/1981, Assistant lecturer 22/4/1981 – 16/9/1985, Lecturer 17/9/1985- 29/12/1991, and Assistant professor 30/12/1991 – 6/7/1994 at Dental Biomaterials Department, Faculty of Dentistry, Mansura University. Worked as consultant Prosthodontics, Dental Center, King Fahad Hospital, Al-Madinah Al Menawarah, Kingdom of Saudi Arabia 1988 –2000. Worked as Assistant Professor, Dental Biomaterials, College of Oral and Dental Medicine, Misr University for Science & Technology (MUST), Egypt 2000 –2004. At the same university i became a full professor & head of Dental Biomaterials, 12/9/2004 – 1/6/2014. I worked as a Vice Dean of Graduate Studies and Researches, in this college, 2/6/2014 till 31/1/2016. Currently: Consultant Prosthodontics, Professor and Head of Dental Biomaterials, Faculty of Dentistry, Modern University for Technology & Information (MTI), Egypt 1/9/2016 till now. An editor in many international dental journals, a speaker at many national and international dental conferences, and published seventeen researches in international dental journals.

Biointegration and Surface Modifications of Titanium Dental Implants

Kinga TURZÓ
University of Szeged, Hungary

With the increase of the time of life of humans the need for biomaterials replacing parts of human body or organs is increasing. Therefore the study of the biointegration of alloplastic materials and development of biocompatible materials is one of the most important research fields of biomedical sciences. This lecture presents a brief description of the biointegration and surface modification of dental implants. A new emerging field of science, the biological surface science is also introduced and its connection to the field of alloplastic materials and dental implants is shown. Our studies relate to replacements of body structures in case of which the biological function requires significant load-bearing capability. Example for that are dental implants which are one of the most frequently used biomaterials and artificial hip-joint replacements. These are generally made from titanium (Ti) and their biological integration and selective biocide nature depends on -among others- the surface structure of the material. Therefore our research focuses on the surface aspects of these materials. We will indentify some important trends and directions in the surface modifications of Ti dental implants targeting the improvement of their bio/osseointegration. Our research group started its activity in the field of the biointegration of alloplastic materials 17 years ago. In general we are testing the bio- and osseointegration of surface modified titanium dental implants (physical-chemical and biochemical modifications). Beside this we have performed studies on the effect of fluoride containing prophylactic gels and solutions on titanium probes and on the effect of decontaminating agents used for the treatment of periimplantitis on titanium dental implants. Used investigation methods: surface science methods (AFM, SEM, XPS), in vitro (tissue cell culture) and in vivo (animal) studies.

Biography

Kinga TURZÓ is a physicist (B.Sc. and M.Sc.) graduated in 1989 at the Faculty of Physics, University of Bucharest, Romania. She gained her PhD. degree in physics (2000) at the University of Szeged, Hungary. In 2001, she achieved an Alfred Kastler fellowship in Strasbourg, at Université Louis Pasteur where she started to work on surface modifications of dental implants. Since 2001, she works at the University of Szeged, Faculty of Dentistry, Department of Oral Biology and Experimental Dental Research, where as an associate professor she established a school of biomaterial science with her colleagues. Between 2015-2018 she was the dean of the Faculty. Since 2018 she works also at the University of Pécs, Medical School, Department of Dentistry, Oral and Maxillofacial Dentistry. She is the leader of several national and international grants and she published 27 papers in reputed journals. Post-doctoral fellowships: György Békésy (2003), János Bolyai fellowship of the Hungarian Academy of Science (2011-2014).

N-acetyl cysteine versus chlorhexidine mouthwashes in prevention and treatment of experimental gingivitis: A randomized, triple-blind, placebo-controlled clinical trial

Ahlam Al-kamel
University of Science and Technology, Yemen

Objectives: To compare the efficacy of N-acetyl cysteine (NAC) mouthwash with chlorhexidine (CHX) in prevention and treatment of experimental gingivitis.

Materials and Methods: Sixty subjects were assigned randomly and blindly into one of 3 equal groups: NAC, CHX or placebo group. The study was conducted in two stages: preventive and treatment substudies. Professional prophylaxis was performed ahead of starting the preventive substudy. Then the subjects were instructed to stop oral hygiene practices and begin rinsing twice/day with 15 ml of the assigned mouthwash (1.25% NAC, 0.2% CHX or inert base). Plaque index (PI), gingival index (GI) and papillary bleeding index (PBI) were measured at baseline, 7, 14, and 21 days. The treatment substudy started on day 21 in which the subjects in the placebo group (now with established experimental gingivitis) were assigned to NAC (n=10) or CHX (n=10); the abovementioned indices were measured at 28 and 35 days. Efficacy of these interventions was compared.

Results: All groups accumulated plaque and developed some degree of gingivitis: full-blown in the placebo group and remarkably mild in the CHX group. NAC had slight preventive properties at days 14 and 21. In the treatment substudy, CHX was associated with remarkable reduction in plaque and gingivitis while NAC resulted in insignificant reductions.

Conclusions: 1.25% NAC is marginally effective in prevention and treatment of experimental gingivitis.

Clinical Relevance: When compared with the placebo, NAC showed promising preventive and treatment effects of gingivitis that deserve further development and studies.

Biography

Dr. Ahlam AL-Kamel -a research assisstant and a master student in the Department of preventive and biomedical sciences, Faculty of Dentistry at University of Science and Technology, Sana,a Yemen. She has published two papers. She has also been working as a periodontology at private dental centers for four years.

Odonto-Aesthetic Engineering through Facial Interferometry

Roba Izzeddin
CIMBUC, Venezuela

The facial harmony is an element that plays an important role in the aesthetics of the human face, contributing almost entirely to the adjustment of the deformations produced in it, due to the absence of a total prosthesis or its wrong placement. The objective of this study is focused on determining and visualizing, through images and their respective topographic survey, the vertical dimensions of the human face, with the purpose of accurately detecting the necessary measures in terms of prosthetic rehabilitation. Materials and Methods: Three clinical cases: a total edentulous case before and after the prosthetic rehabilitation, to which the linear projection technique was applied and the calculation of the respective vertical dimensions, the other two cases one was applied the technique of linear projection and the other was applied the technique of moiré patterns, all of them were surveyed in 3D. Results: The proposal applied in humans allows the calculation of parameters that achieve harmony of the facial profile and the lifting of 3D images based on two interferometry techniques: linear projection and moiré patterns. Conclusion: Both techniques offer the dentist 3D visualization of the face, and the linear projection technique allows obtaining the required measurements with greater precision and with non-invasive techniques useful for all dental specialties.

Biography

I graduated at the age of 23 years of Dentistry at the University of Carabobo (2002), then completed the Specialization in Teaching for Higher Education at the University of Carabobo (2005). Realizes in the year (2011) a Postgraduate in Aesthetic Dental BCN Spain. In the same year, I was able to complete the Master in Dental Aesthetics UPE (2011) and in (2012) I completed a Master in Public Health Management. The Universidad Internationals del Caribe also completed a Doctorate in Dental Sciences at the Universidad international del Caribe (2014). I am an associate researcher at the Medical and Biotechnology Research Center of the University of Carabobo (CIMBUC) since 2014, this year I have a Doctorate in Experimental Pedagogical Education Sciences from Universidad Liberators (2018). I am currently attending the Continuing Education International Aesthetic Dental New York University program.

Effect of Combination of Calcium Hydroxide and Chlorhexidine Gel 2% as Intracanal Medication in Comparison to Calcium Hydroxide Paste as Intracanal Medication on Postoperative Pain and Bacterial Endotoxin in Necrotic Teeth: A Randomized Controlled Trial

Mohammed Saadi Alarbeed
Cairo University, Egypt

Aim: The aim of this study is to evaluate the effect of calcium hydroxide combined with 2% chlorhexidine gel as Intracanal medication compared to calcium hydroxide paste on postoperative pain reduction as the primary outcome and endotoxin reduction as the secondary outcome in a patient with necrotic pulp on two visit treatments.

Materials and Methods: Forty-three patients with necrotic single-rooted tooth with apical periodontitis, aged ranged from 18 to 49 years old with no gender predilection. The participants were randomly assigned into three groups according to the Intracanal medication used; (Calcium hydroxide and chlorhexidine 2 % gel group I, n=15), (Calcium hydroxide paste alone group II, n=15) and (no Intracanal medication group III, n=13). The preoperative pain was recorded using numerical rating scale (NRS). After isolation and disinfection, access cavity was prepared followed by chemo mechanical preparation, which was done using rotary Revco-S files with 2.5% NaOCl irrigation. Then, Intracanal medication was placed for 14-days. Postoperative pain was recorded at 4, 24, 48 hours and 14-days postoperatively. Paper points collected endotoxin samples before (S1) and after chemo mechanical preparation (S2), and after 14-days of intra-canal medication (S3). A sandwich ELISA method was used for the quantification of endotoxin. Patients were randomly assigned to any of these three groups.

Results: Each group resulted in an increase in median pain value from preoperative to 24 hours postoperative record, followed by a gradual decrease from 48 hours to 14-days postoperatively with a statistically significant difference. When comparing to control group (III), Calcium hydroxide combined with chlorhexidine 2 % gel group (I) showed lower postoperative pain than that of calcium hydroxide paste group (II) at 24 and 48 hours and 14-days. There was statistically significant difference between the three groups ($p<0.001$). Regarding endotoxin level, all groups showed marked decrease in endotoxin median values from (S1) to (S3), where the group (I) showed significantly least endotoxin value at (S3) ($p<0.001$). When compared to group (II) and group (III) groups ($p<0.0001$).

Conclusion: The use of Intracanal medication for 14-days in necrotic teeth with apical periodontitis was more reliable in reducing postoperative pain regardless the type of medication used. However, endotoxin level in the infected root canals was reduced significantly after root canal preparation and further reduced after 14-days of Intracanal medication, where calcium hydroxide combined with 2% chlorhexidine gel showed higher endotoxin reduction when compared to calcium hydroxide alone.

Biography

Mohammed Saadi Alarbeed has completed MCs in Endodontic at the age of 34 years from Cairo University. Published my paper in ACTA journals. Experience working Alqasr Alaine Hospital – Cairo University (MCs in Endodonctic) from 2014 – till now. Experience work with Altayyar Co. (Dental Material , Lumineers) (DENMAT). Experienced work with Alliance Technology (Medical Devices) for 4 months in Saudi Arabia. Experienced work with the Ministry of Health in Jordan.

Title: MODIFIED RIDGE SPLITTING AND BONE EXPANSION OSTEOTOMY FOR PLACEMENT OF DENTAL IMPLANT. "A NOVEL APPROACH"

Mohamed Marwan Rahhal
Fayoum University, Egypt

Introduction: Ridge splitting with bone expansion is a technique of manipulation of bone to form receptor site for implant without removing any bone from the implant site. Maxillary bone has inherent quality of flexibility which can be molded to desire location by using series of instrument. Maxillary bone is softer in quality (mainly D2, D3 and D4 type). Failure rates of implant placed by mere drilling are very high in maxilla. This further improves quality of bone all around implant, at both the crest and apex.

In some cases of implant placement there is insufficient horizontal bone (width less than 3 mm) preventing implant placement and this may lead to mal-aligned implant. Thus, ridge splitting is the treatment of choice. Ridge splitting with bone expansion is a technique of manipulation of bone to form a better receptor site for implants. The following approach shows how to mold the maxillary bone to the desired location by using series of instruments for the ridge splitting procedures, which in turn improves quality of bone all around the implants, at both the crest and apex.

Case description: Ridge splitting was carried out using a lancet and continued with a cement spatula then 4 implants were placed in the maxillary left canine, premolar, right (lateral and premolar). Since implants were mal-aligned, 25 degree angulated abutments were considered. Provisional restoration was cemented temporarily showing good levels of acceptance.

Follow-up & outcomes: Implant stability was detected using an "Ostell" where it revealed successful readings (an average of 68, 71, 69 and 73 for maxillary left (canine and premolar) maxillary right (lateral and premolar) respectively, after a healing phase (osseointegration) of 5 months. The postoperative CBCT showed gain to the bone width beside better function and good results concerning the esthetics. No clinical signs and symptoms were shown.

Conclusion: This modified ridge splitting technique is a simple and short procedure with satisfactory results regarding the patient satisfaction and the CBCT showed bone gain with minimal morbidity. The approach overcomes the disadvantages of bone grafting and has a low cost.

Effect of Gels Containing Chlorhexidine or Epigallocatechin-3-Gallate on the Protein Composition Of The Acquired Enamel Pellicle

Marcia Yuri Kawauchi
University of São Paulo, Brazil

Objective: This study evaluated changes in protein profile of the acquired enamel pellicle (AEP) formed in vivo, after application of gels containing chlorhexidine or EGCG and further challenge with citric acid. Design: AEP was formed in 9 volunteers for 2 h and then treated with one of the following gels: placebo, 400 Mm EGCG or 0.012% chlorhexidine. A thin layer of gel was applied and after 1 min the excess was removed. One hour after gel application, the AEP was collected from the buccal surface (upper and lower jaw) of one of the sides with filter paper dipped in 3% citric acid. On the other side, erosive challenge was performed through gentle application of 1% citric acid (pH 2.5) for 20 s (using a pipette) followed by washing with deionized water. The AEP was collected as mentioned before. Proteomic analysis was performed through liquid chromatography electrospray ionization tandem mass spectrometry (LC-ESI–MS/MS). The MS/MS spectra obtained were compared with human protein databases (SWISS-PROT). Label-free quantitation was done using the PLGS software. Results: In total, 223 proteins were identified. After treatment with EGCG and CHX gels, proteins with potential functions to protect against caries and erosion such as PRPs, calcium-bind proteins and Slathering were increased. When EGCG and CHX-treated AEPs were challenged with citric acid, there was increase in cystitis and Profilin- 1.

Conclusion: CHX- and EGCG-treated AEPs, submitted to challenge with citric acid or not, had remarkable changes in their proteomic profiles.

Biography

Marcia Yuri Kawauchi has completed her PhD in orthodontics at the age of 32 years, in 1999 at the University of São Paulo - Brazil (USP – Bauru). Since then, she has coordinated postgraduate courses such as specialization and master's degree in orthodontics, in addition to working in private practice. Currently she is Professor at UNIFIO, Ourinhos (São Paulo - Brazil). She has published several papers in reputed journals, and she is scientific reviewer of some national and international journals, as well.

A Study about Managing Precancerous Oral Ulcer by Imposing Some Food Habits Focusing On Oral Cancer Prevention

Jebun Nessa
BSM Medical University, Bangladesh

Introduction: Worldwide the frequency of various types of oral ulcer including oral cancer is increasing alarmingly. Bangladesh is not exceptional in this regard. From several epidemiological and clinic-pathological perspectives it is clear that the oral precancerous lesion, right now known as potentially malignant disorders, can progressively be transformed into oral cancer. Presently this is a common representation of Bangladesh where oral cancer is one of the leading causes of cancer mortality. In Bangladesh specifically in remote rural areas, an enormous number of people stay with undiagnosed different forms of oral ulcers and hence remain untreated. Apart from this despite the advancement of new technology including the available treatment components like surgery, radiation and chemotherapy, the five-year survival rate has not yet been much upgraded. Therefore, prevention of the transformation of oral precancerous lesion to cancer is more judicious. To ensure this early detection and taking speedy care is vital.

Methods: However, the present intervention study was accomplished using an innovative treatment modules prepared by the investigator herself. This new regimen is a non-toxic and eatable product. The intervention trial was performed on the research participants with oral ulcer who visited to the Faculty of Dentistry, BSMMU to seek treatment. Participants were selected using purposive sampling technique. The sample size was 60. Through undertaking biopsy the diagnosis was established in every case.

Results: The age range of them was from 25-65 years where the mean age was 42.5 years. Most of them came with the complaints of burning sensation in their mouth. 75% of the study population was female. And amongst the all participants 85% of population were suffering from Lichan Planus while other 15% embrace: 5% Mucosal Fibrosis, 5% Erythroplakia and 5% were Leukoplakia. After implementing the self-made treatment module, improvement of the most oral precancerous ulcer took place by shrinking or reducing the oral ulcer. It has been observed that after using the trial regimen the oral ulcer was improved immensely but when discontinuing the regimen the ulcer relapse within 10-15 days.

Conclusion: So, this study outcome offered an opportunity to generate a new hypothesis. Therefore, further research is acclaimed using the same trial regimen because to comprehend the effectiveness of the new regimen satisfactorily more work has to be done for long-term basis.

Biography

Jebun Nessa is a founder chairman of Pedodontics Department, Faculty of Dentistry, BSM Medical University, Dhaka-1000, Bangladesh. She passed BDS (Bachelor of Dental Surgery) in 1982 from Dhaka Dental College. In 1987 she got her DDS (Post Graduate Diploma in Dental Surgery) from the University of Dhaka. In 1992 she got her Post Graduate Diploma in Primary Health Care from the University of Western Australia and MPH from the University of Sydney, NSW, Australia. She is currently working as a professor and chairman of Department of Pedodontics at BSM Medical University, Shahbag, Dhaka-1000, Bangladesh.

OPB (Optimized Biomechanical Protocol) - Myths and Truths about Self-Ligating Brackets in Orthodontics. Clinical Tips

Eduardo Alvares Dainesi
E. Orto – Dentistry Post-Graduation School, Brazil

Self-ligating brackets are ligature less bracket systems that have a mechanical device into the bracket to close off the edgewise slot. According to the locking systems and to the relation they present with the arch wires inserted in their slots these brackets acting as passive, interactive or active. One can say that one of the greatest benefits in the use of these brackets is the reduction of friction between slot and arch wire, thus allowing a faster tooth movement, especially when using sliding mechanics. This is partially true since the friction reduction does not depend only on the bracket and wire connection system. In order to reduce friction effectively, it is necessary to use thermodynamic wires, especially those with ionic surface treatment. In addition, in order to have greater control of the dental position, especially during the alignment and leveling of the dental arches, it is necessary to use stops. Reduced friction during orthodontic movement in performing induced tooth movement means that more biologically compatible forces may be applied. This means working with lower levels of forces, allowing a better control of the mechanics, especially of anchorage and reducing the probability of biological costs, as root resorption. The OPB has the following purposes: reducing clinical working time (by using self-ligating brackets to allow a fast working time); Reduction of the orthodontic biological cost; Biomechanical comfort during the treatment and Largest time for the detailing and refinement of the occlusion (through the application of a logical sequence of thermodynamic archwires and strategically positioned stops). Culminating in patient's satisfaction and well-being. Thus, this presentation discuss some clinical tips to show the simplicity of the OPB.

Biography

Eduardo Alvares Dainesi has completed his PhD in orthodontics at the age of 34 years, in 1998 at the University of São Paulo - Brazil (USP – Bauru) and his Postdoctoral degree in orthodontics at the same University in 2001. Since then, he has coordinated postgraduate courses such as specialization and master's degree in orthodontics, in addition to working in private practice. Currently he is the scientific director of E. Orto – Dentistry Post-Graduation School, Bauru city (São Paulo - Brazil). He has published several papers in reputed journals, and he is scientific reviewer of some national and international journals, as well.

Orthodontic post-adjustment pain control with acupuncture

Daniela Boleta Ceranto
Universidad Paranaense – UNIPAR, Brazil

Introduction: Dental therapy, including orthodontic treatment, usually causes pain. For orthodontic movement, there are no doubts that pain perception is part of the inflammatory reaction caused by many chemical mediators released. Studies show that nearly 95% of patients under orthodontic treatment present different levels of discomfort that can interfere in patients sleep and induce the medication use. New procedures for pain control are needed. This study assessed the analgesic efficacy of acupuncture therapy on pain caused by orthodontic adjustments.

Methods: This research was approved by the Ethics Committee. Patients under fixed orthodontic treatment, that complained of pain after orthodontic adjustment and accept acupuncture treatment participated. Thirty patients participated the study. Visual Analogic Scale was used to quantified pain with and without acupuncture treatment. Hegu (LI4) and Jiache (St6) points were used before adjustment on both sides, the needles remained in place for twenty minutes. Results were used to calculate the average pain described by each patient during the three orthodontic adjustment appointments after acupuncture therapy. Volunteers performed self-analyses. 11 volunteers conclude the study.

Results: Significant statistic differences were found in pain perception between male and female patients, results were separately assessed according to that variable. Results reveal a gradual increase in volunteers' pain level right after orthodontic adjustments and within the first 24 hours with gradual reduction during the following periods. Analysis of variance (ANOVA) followed by Turkey test at a 5% significance level was conducted between male and female patients and showed a statistically significant difference in pain level after orthodontic activation with or without previous acupuncture therapy.

Conclusion: Within the limitations and conditions of this experiment, it is reasonable to conclude that systemic acupuncture treatment performed before orthodontic therapy can reduce pain level in both men and women. Additionally, acupuncture proves to be a safe technique employed for this purpose. The fact that it is not an onerous technique is important and must be observed, particularly considering the present social-economic situation in Brazil.

Antibacterial Activity of Biological Active Chitosan/composite Coating Electrophoretically Deposited on Titanium Dental Implant In-vitro Study

Dina Gamal AbdelAll
Nahda University, Egypt

Objective: This study aimed to coat titanium alloy dental implant with biological active chitosan/calcium phosphate composite coating by electrophoresis technique and monitoring the antibacterial effect on different bacterial species.

Material and methods: 50 Ti-6Al-4V discs were prepared and divided into five groups (n=10). Group 1 was used as control group. Electrophoretic technique was used to deposit pure chitosan on dental implant disc (Group 2). Group 3 was calcium phosphate coated. Group 4 was chitosan/calcium phosphate composite coated with lower current density and group 5 with higher current density. The different coated dental implant surfaces were chemically characterized by (XRD) and (FTIR). Surface topography was surveyed by using (ESEM) whereas morphologically by (SEM). Coating thickness was calculated. Antibacterial activity of hybrid chitosan coating was assessed against two bacterial strains; S. aureus and E. coli by using Colony forming units' plate counting method (CFU).

Result: XRD- analysis of the different coated dental implants revealed that; Group 2 represented amorphous pattern chitosan coated layer. Highly crystalline hydroxyapatite/ Chitosan composite coating was formed mainly with lower current density (Group 4). Whereas increased current density group 5 formed from less amount of crystalline HA/ Chitosan composite coating. FTIR analysis confirmed the XRD results. Group 5; recorded the highest significant mean average surface roughness was (Ra) = 189.26±1.01µm with highest coating thickness. SE micrograph revealed deposition of typical morphology of HA/chitosan composite structure in group 4 and group5 all over the surface. Group 5 showed the highest significant antibacterial effect against gram-positive bacteria (staphylococcus auras) among all groups.

Conclusion: Defective HA/chitosan hybrid composite structure has more antibacterial effect than crystalline HA/ chitosan.

Endocrowns: Clinical Report

Erika Lander
Central university of Venezuela, Venezuela

Objectives: The Endocrown consists of a circular equigingival butt-joint margin and a central retention cavity of the entire pulp chamber, instead of intracanalicular posts. (Gohring & Peters, 2003) It is placed into the chamber and 2mm or 4mm into each canal space.

Method & Materials: In a 32 year-old woman, with old restorations of amalgam in two lower molars, both with secondary decay, Endocrowns should be taken as a conservative alternative of restoration due to the quantity of remaining tissue in both teeth, that can be appreciate in the clinical evaluation. After removing the temporal material it was realized how many remaining dental structures were available to conserve, and was possible to initiate the preparations.

Results: Due to the conservative procedure some of the remaining tooth structure could be used for retention; due to the material that was used, a more natural shape appearance could be obtained; and finally, taking advantage of adhesive techniques, risks of gaps, secondary decays, and failures were avoided, so we could have restorations that could be successful in terms of aesthetics and longevity.

Conclusions: Our interest to increase the scientific knowledge about this subject is because it could represent an interesting, conservative and secure procedure. Recommended as a real restorative possibility for endodontically treated teeth.

Biography

Erika Lander is a Dental Technician and Professor in the Department of Aesthetic Dentistry on the Private Educational Center Somos Saludy Education, Caracas, Venezuela. She is Lecturer, Professor, and Universidad National Experimental Politécnica de la Fuerza Armada of Caracas, Venezuela. She is invited Professor at Department of Implants, Universidad Santa Maria and UCV of Caracas, Venezuela. She is dedicated to the Private Dentistry in her own Office in Hospital de Clinicas Caracas, Venezuela. She is Researcher, Lecturer, Exclusive Brand Manager and Distributor of Dentium Implants System, Venezuela. She is Dental technician on Ceramics and Director of Creación Dental Art Laboratory. She is Manager Director of Gold Esthetic Group Venezuela since 2019.

The Use of Mucograft® Collagen Matrix to augment the zone of keratinized tissue around teeth versus to Free Gingival Grafting: A Randomized, Controlled Clinical Trial

Hadi
Lorestan University of Medical Sciences, Khorramabad, Iran

Background: The gold standard surgery for increasing keratinized tissue (KT) is an autogenous free gingival graft (FGG); however, there is morbidity associated with the harvest of autogenous tissue, and supply is limited. The purpose of this study is to determine if a xenogeneic collagen matrix (CM) might be as effective as FGG.

Methods: This study is a triple-masked, randomized, controlled, split-mouth study of 30 patients with insufficient zones of KT (<2 mm). It uses a within-patient treatment-comparison design to establish non-inferiority of the test (CM) versus control (FGG) therapy. The primary efficacy endpoint was change in KT width (ΔKT) from surgery to 6 months post-surgery, patient's recorded pain during 7 days post-surgery. Secondary endpoints included traditional periodontal measures, such as clinical attachment level, recession, and bleeding on probing. 12 patients with inadequate amounts of keratinized attached gingiva bilaterally in the posterior mandible were enrolled using a split-mouth design.

Results: There were statistically significant increases in attached gingiva at all test (CM) and control (FGG) sites. The CM sites at 6 months blended well with surrounding tissues, while the FGG sites were morphologically dissimilar to the adjacent areas.

Conclusion: The FGG and the Mucograft (CM) are both suitable for the regeneration of the keratinized gingiva around the teeth. With the Mucograft (CM), tissue harvesting procedures are eliminated, lower morbidity of the patients, surgery time can be reduced, and regenerated tissues have a more esthetic appearance

UPCOMING CONFERENCES 2019

Global Conference on Nursing Care & Education

during 02-03, September 2019 Rome, Italy

https://www.nursingcareconferences.com/

Global Conference on Breast Cancer Research

during 02-03, September 2019 Rome, Italy

https://www.breastcancerconferences.org/

Euro Congress on Dementia and Alzheimer's Diseases

during 02-03, September 2019 Rome, Italy

https://www.dementiameet.com/

UPCOMING CONFERENCES 2020

2nd Dentistry and Oral Health Summit

during 13-14, April, 2020 Las Vegas, USA

https://www.dentalcareconference.com/

2nd International Conference on Aging & Cognitive Impairment

during 13-14, April, 2020 Las Vegas, USA

http://usa.agingcongress.com/

Global Conference on Sexual Medicine

during 30-31 March, 2020 Dubai, UAE

http://www.sexualmedicineconference.com/

Behavioral and Social Science Research Summit

during 30-31 March, 2020 Dubai, UAE

http://www.behavioralconference.com

Human Nutrition and Food Science Conference

during 30-31 March, 2020 Dubai, UAE

http://www.hnfsconference.com/

3rd International Summit on Aging & Gerontology

during 3-4 August, 2020 London, UK

https://www.agingcongress.com/

Catalysis and Chemical Engineering Conference

during 3-4 August, 2020 London, UK

http://catalysisummit.com

Global Summit on Climate Change

during 3-4 August, 2020 London, UK

http://climatechangecongress.com