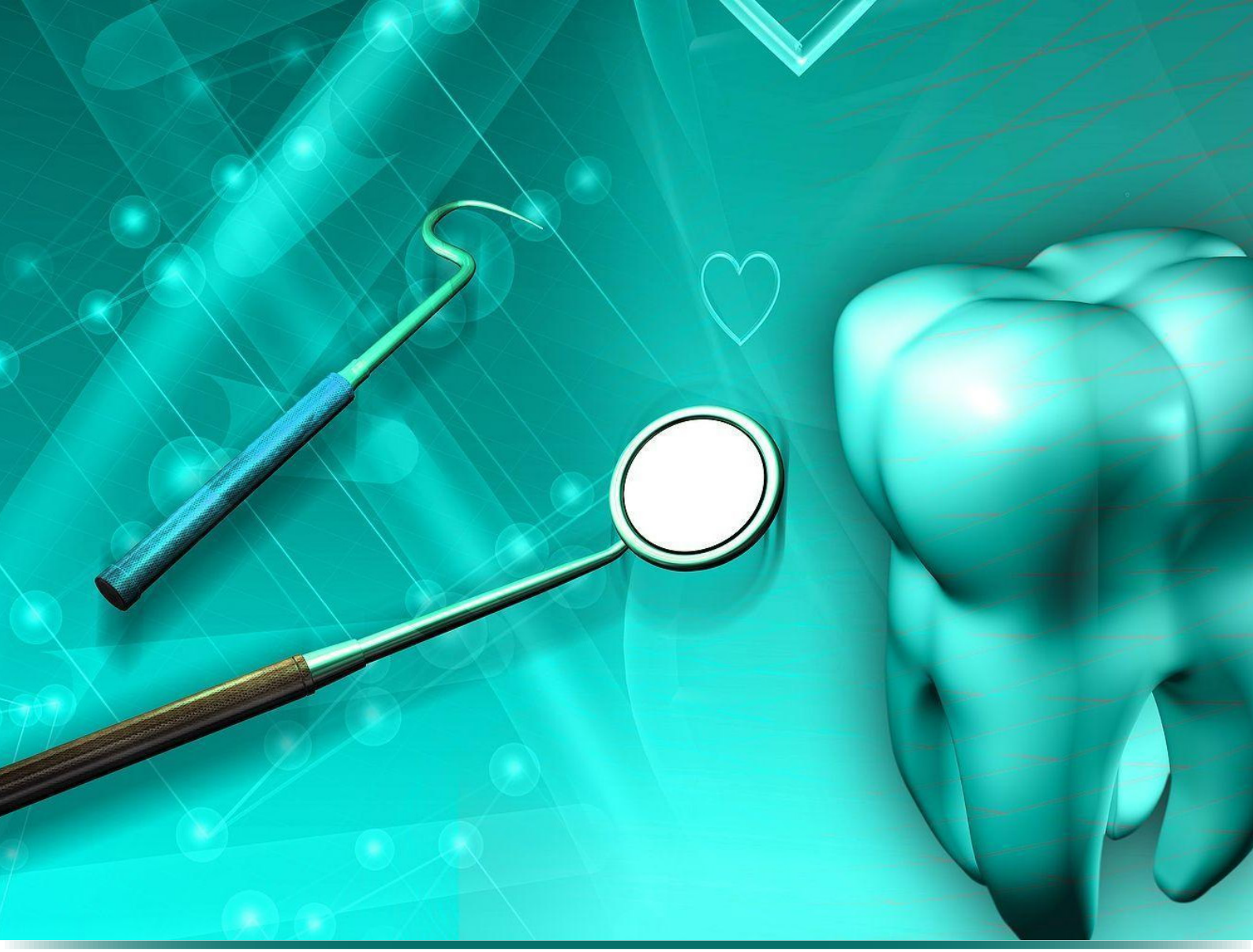

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Proceedings of

2nd International E-Conference on

DENTISTRY AND ORAL HEALTH

November 22, 2021 I Webinar

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NOTE:

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KEYNOTE SPEAKERS

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Josephine Efemba Ondoua[1], Vicky Jocelyne Ama Moor*[2], Chris Nadège Nganou- Ngnindjio[3], Catherine Gamgne Guiadem[1], Batakeh B. Agoons[4], Jan Rene Nkeck[3], Xavier Ekouelkoum[1], Manuel Eko Ondoa[2], Jean Joel Bigna Rim[5]

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Cardiovascular risk in obese and overweight subjects with periodontal disease in Yaoundé: a community cross-sectional study

Studies show an association between obesity, cardiovascular risk and periodontal disease. In Sub-Saharan Africa, and Cameroon in particular, no data exists reporting the association between these three entities. This study aimed to evaluate the cardiovascular risk in obese or overweight subjects with periodontal disease in Yaoundé.

We conducted a cross-sectional analytical study from December 2020 to June 2021. Consenting obese or overweight subjects aged 21 years and above, were included. Subjects with documented cardiovascular disease/history of cardiovascular events were excluded. The sample was divided into two: obese/overweight subjects with periodontal disease and obese/overweight subjects without periodontal disease. Anthropometric characteristics, oral hygiene habits, medical history and periodontal examination findings were documented. Cardiovascular risk was calculated using the Framingham score. The chi-square test and Student test were used to evaluate the association between variables, with a significance level of 0.05. The odds ratio and its 95% confidence interval were used to determine the degree of association.

A total of 276 obese or overweight subjects were included (87.3% women). The average age was 49.2 ± 13.2 years. The prevalence of periodontal disease was 46.0% with gingivitis (23.2%), moderate periodontitis (13.8%) and mild periodontitis (8.3%) being the most frequent. Diabetes, body mass index (BMI) and age were significantly associated with periodontal disease (aOR: 3.24, 1.09, 1.05 respectively). The overall mean risk of developing a cardiovascular event within 10 years was 6.6% in subjects with periodontal disease and 2.2% in the healthy periodontium group (p=0.0001). This risk increased with severity of periodontal disease.

Obese or overweight subjects with periodontal disease have a greater risk of developing cardiovascular disease within 10 years than obese or overweight subjects without periodontal disease.

Keywords: obesity, cardiovascular risk, periodontal disease.

Biography:

Ama Moor Vicky Jocelyne is a medical doctor since 18 years, specialized in clinical pathology since 10 years and has received her Ph.D degree in the year 2018 from University of Yaounde 1 in Cameroon. She has working on dyslipidemia occurrence in Cameroon, with an interest in medicinal plants. She is associate Professor in the Department of Biochemistry at the Faculty of Medicine and Biomedical Science, the University of Yaounde 1. She has published more than 54 papers in reputed journals.

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Dr. Arpit Sikri*

Associate Professor & Post Graduate Teacher, Department of Prosthodontics, Crown & Bridge and Oral Implantology, Bhojia Dental College & Hospital, Baddi, Himachal Pradesh, India

The ABC of Basal Implantology

Dental implants have always been a preferred choice as far as the prosthetic rehabilitation is concerned. Success of the prosthodontic treatment relies on the proclivity of dental implants in comparison to other prosthetic rehabilitation modalities i.e. removable and fixed. Although, the endosseous implants have always been a conventional treatment modality, the concept of BIG B i.e. Basal Implants in Dentistry is not a new one. They have been termed in a way keeping in view the length of the implant since they have greater length as compared to the crestal implants. Basal implants have always been in controversy with the conventional crestal implants keeping in view the active evidence based practices going on day-to-day basis.

In conventional implantology (Implants are referred to as crestal-type implants since they are inserted into the jaw bone coming from the crestal alveoli and whose main load-transmitting surfaces are vertical. The BIG B or Basal implantology has been given so many names in the past. It is also known as bicortical implantology, cortical implantology, bicortical, multicortical, corticobasal and very recently BIPS (Bone Implant Prosthetic System) is a modern implantology system which involves lateral or axial placement of the dental implants into the basal bone. The basal bone i.e. the framework of the human body provides excellent quality cortical bone as well as resistance to resorption has been the bone of choice while engaging the implants.

Keywords: dental implant, basal implant, basal bone, long implant, BOI, BCS

Biography:

Dr. Arpit Sikri [BDS (Gold Medallist), MDS (Prosthodontics), PGDHM, DWCOI] is currently working as Associate Professor & Post Graduate Teacher in the Department of Prosthodontics, Bhojia Dental College & Hospital, Baddi, Himachal Pradesh, India. He had earlier worked as Senior Resident in the most prestigious dental institute of the country i.e. Maulana Azad Institute of Dental Sciences, New Delhi, India. He had also worked as Senior Lecturer in Santosh Dental College, Santosh Deemed to be University, Ghaziabad (Delhi NCR) & Senior Lecturer in Sudha Rustagi College of Dental Sciences & Research, Faridabad, Haryana, India. He is the youngest dental surgeon of India to have completed his Post Graduate Diploma in Hospital Management from National Institute of Health and Family Welfare (NIHFW, New Delhi) and that too with distinction. He has also been conferred with Diplomate Fellowship in the field of implantology by World Congress for Oral Implantology (WCOI), Tokyo, Japan. Throughout his academic career, he had been awarded with gold medals being the Topper of the University, back to back. He has authored a book on “Oral Pathology” under Scientific Medtech publishers. He has to his credit around 28 books under Lambert Academic Publishing (LAP) and more than 100 national as well as international publications in various reputed journals. He is the Editor of Webmed Central, Associate Editor of Current Dental Research Journal and Assistant Editor of Asia Pacific Dental Journal & I-Dentistry journal. He is on the panel of various national and international journals as an editorial board

member. Apart from this, he is also an active reviewer for various journals. He is actively associated with various associations namely IPS, IDA, IDRR, AHA, etc. He has been recently appointed as “General Secretary” of Oral Maxillofacial Implantology Council of India (OMICI) by DenTrenz Careers. He has presented keynote guest lectures and faculty presentations in various national & international conferences. He also presented paper as well as poster presentations in various conferences, many of which were highly appreciated and awarded. He is also known for his organization skills since he has been actively associated as organizing committee member for various conferences. Moreover, he is the youngest dental surgeon of the World to have been appointed as Chairman, Organizing Committee of the DenTrenz 3 in 1 International Virtual Dental Conference 2020. He is the Council Member of Gergson Lehrmann Group (GLG). He had been the President of NDDSF (dental society) from Punjab State. He has also contributed in various books like Textbook of Conservative & Restorative Dentistry, Textbook of Endodontics, Indirect Restorations, Target MDS MCQ’s, Dental Matrix, Brahmastra, AIIMS 25 etc. He has been also conferred with many awards namely IDA Profile of the Month 2011, Budding Dentist Award 2010, Dental Youth Icon 2009, Student Ambassador and Mentor by the publishing group “Elsevier” and “The Best Post Graduate Student in Prosthodontics in India” in 2016. He has been recently awarded as “The Most Dynamic Dentist of the year 2021” during the Next Den Gen Awards 2021 where he was also appointed as the Guest of Honour and esteemed jury member. Earlier, he was awarded “Doctor’s Excellency Icon Award 2020” for excellent work in the field of dentistry by Geniuses World Records on the occasion of National Doctor’s Day i.e. 1st July 2020 & Global Outreach Healthcare Award 2020 under the category “Associate Editor of the Year” for exemplary work in the field of research by Global Outreach Medical & Health Association (GOMHA). He has recently been conferred with the Appreciation Award for commitment and dedication to the field of dentistry on the occasion of International Dentist’s Day i.e. 6th March 2021 by team CynoDent (Global Healthcare for all). He was also awarded and honoured by the then Chief Minister of Punjab (Sh. Prakash Singh Badal) for securing highest marks during BDS 1st professional university examinations. He was also awarded with IDA Colgate scholarships and RN Kukar merit award throughout his academic career. Apart from the academics, he is actively associated with sports and cultural activities also. He had been a national level player of Table Tennis and won many awards for the same. He has also won medals for various sports events held in conferences, intra-college as well as inter-college level.

Dr Guillermo Rossi*

Chair Professor of Periodontics III, Universidad del Salvador, Asociación Odontológica Argentina, Buenos Aires, Argentina.

Abfraction-Myth or Reality? Why Some Wedge-shaped Cervical Lesions are not Caused by Acid Erosion?

The objective of this work is to demonstrate that all the lost of dental structure is not caused by acid and the specialy toohtbrushing one in the abrasivness of the toothpaste. Abfraction is called the wedge-shaped lesion in the cement-enamel junction (LAC) caused by eccentric occlusal forces that lead to tooth bending.

An injury strictly of the cervical enamel that rebound in dentine and cement that cause the dental flexion in where periodontium plays an important roll.

Although the processes of lost of dental structure must to multifactorial causes the action of the parafuntional forces act in a single one or few pieces of he himself sector.

During the development of this paper different causes were enumerated and the justification from because all the aetiology of non carious cervical lesions does not respond to the action of acids.

When it is present the harmful force that generates the loss in wedge shape is left to the structure of the enamel giving rise open to that acid elements are transformed into risk factors to trigger a greater loss of dental structure.

Keywords: Non carious cervical lesions; Abfraction; Erosion; Abrasion; Stress corrosion; Wedge shaped lesions; Abfraction and biological width; Periodontal surgery; Abfraction and steps; Gingival fluid and erosion

Biography:

Dr Guillermo Rossi is Periodontics Specialist Emeritus Professor of the Chair of Periodontology III of the USAL-AOA School of Dentistry. Lecturer in courses in the interior and exterior of the country, Spain, Uruguay, Paraguay, Bolivia, Costa Rica, Peru, and Brazil. He was author of the book “Atlas of Restorative Dentistry and Periodontology. Workshop of Periodontal Surgery for the practical General “and the book” Non-carious Cervical Lesions. The Dental Lesion of the Future “by Editorial Medica Panamericana. He is co-author of the book Operatoria Dental by Dr Barrancos Mooney.

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SPEAKER PRESENTATIONS

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Oral health in a context of public health: Prevention related issue

Betty Berezovsky*, Vladimir Bencko.
Institute of Hygiene and Epidemiology, First Faculty of Medicine
Charles University, Prague, Czech Republic

Oral afflictions represent a massive portion of health conditions affecting individuals worldwide. According to the WHO, 3.58 billion people were affected by oral pathologies around the globe in the year 2016, making oral illnesses a considerable public health concern. On the other hand, oral health has been long recognized as a prerequisite for one's overall health status, illustrating the significance of not only understanding the underlying pathophysiology of common diseases affecting the mouth, but also the optimal conditions that should be met for health cultivation. An important such consideration is the effect of the oral microbiota on its host. Floral abnormalities, also termed dysbiosis, have been documented in important oral conditions, sometimes as a predisposing factor and at other times as a result thereof. Extensive research into the microbiome has paved a path into potentially better understanding of some important disease mechanisms (dental caries, chronic periodontitis, and oral squamous cell carcinoma). And yet, on a more practical level - implementing preventative measures and developing potentially better ones should be intensified if the disease burden of oral diseases worldwide is to decline in the future.

Keywords: oral health, oral hygiene, dysbiosis, caries, periodontitis, oral cancer

Biography:

Miss. Betty Berezovsky (Born in 1994) is a 6th year medical student at the First Faculty of Medicine at Charles University, Prague (1. LFUK). She has cooperated with Professor Vladimir Bencko from the Institute of Hygiene and Epidemiology at 1. LFUK on public health focused approach to common oral conditions. She currently works with the Iron metabolism research group at the Institute of Pathological physiology at 1.LFUK.

T-scan & Orthodontics: What do we have in hands?

Rim Fathalla*
Suez Canal University, Department of Orthodontics, Faculty of Dentistry, Ismailia, Egypt

One of the main objectives of the orthodontic treatment is improving the masticatory and postural function, which in turn permits functional comfort. Since dealing with complex malocclusions with fixed appliances implies that the orthodontist modify dental contacts to achieve a new position of equilibrium, the evaluation of the occlusion during the patient initial examination and during the different stages of treatment is essential. Also, the assessment of the quality of the final occlusion of the treated cases is mandatory in terms of stability and masticatory efficiency. Throughout the years, orthodontists have evaluated the quality of occlusal contacts by different techniques: direct visual inspection, articulating paper marks, polyether rubber impression bites and others. However, these methods were time-consuming and inaccurate.The ideal static occlusal relationships don't necessarily result in ideal functional occlusal relationships. Moreover, the outcome orthodontic indexes assess the aesthetic and morphologic endpoints and don't determine any functional occlusal relationships. Nowadays, by using computerized tools like the T-scan system , the occlusal forces and occlusal contact data can be easily evaluated throughout the arches in real time , dynamically and in different clinical situations .

Objectives of this lecture are :

1. To shed the light on the T-scan system and how it's used to measure the occlusal bite force.
2. To understand the effect of orthodontic treatment on the occlusal bite force.
3. To understand why it's important to monitor the changes in the occlusal forces and occlusal contact areas throughout the treatment process and during the follow-up.

Statistical results of the related studies cited in the literature:

found that the T-scan is a quantitative and a reliable method for occlusal assessment and that the settling of occlusion seems not to improve the functional occlusion after debonding. Hence, it's mandatory to check the functional occlusion before the appliance is removed in order to eliminate any unsatisfying functional occlusal contacts.

Conclusions:

1. The new digital occlusal analysis systems offer many solutions for the orthodontist to accurately determine the distribution of bite force , the center of force trajectory path and the occluding and disclosing times.
2. Digital Orthodontics is not the future. It's the present.

Keywords: T-scan, occlusion, Orthodontics, occlusion time, bite force.

Biography:

She got my Bachelor degree of Dentistry in 2009 from Suez Canal University And my Master Degree in Orthodontics in 2017 from Suez Canal University and I'm currently a PhD researcher in Orthodontics. I'm an Assistant Lecturer of Orthodontics.I was a former speaker at the annual conference of the Egyptian society of Orthodontics in 2019. Also, she was a speaker at IMCAS congress held in Paris in 2020 and I gave a lecture recently in EDSIC Ortho last August.

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Oral health literacy- A tool to achieve successful clinical outcome.

Prof (Dr). Ramesh Nagarajappa[1]*, Dr. Gayathri Ramesh[2]

[1]Department of Public Health Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India.

[2]Department of Dentistry, Chamarajanagar Institute of Medical Sciences, Chamarajanagar, Karnataka, India.

Like general wellbeing proficiency, oral health literacy (OHL) is strongly associated with oral health behaviour and outcome. Fundamentally, it refers to the degree to which individuals have the ability to acquire, process and comprehend essential oral health information and services needed to make appropriate oral health choices. Oral health literacy is an interaction among culture and society, the health and education system, language and oral health outcomes. Knowledge regarding the maintenance and protection of oral health can act as a guide for general persons for taking appropriate consideration of their oral cavity and improvement of oral health status. Individuals who have recently experienced any sort of dental illnesses and have visited dental specialists, will have better understanding and awareness regarding the pain and complicacies associated with oral health problems. Restricted OHL can act as a barrier to accomplish better oral health outcomes. People with low OHL won't know about antagonistic impacts related associated with frequent meal snacking, irregular and faulty brushing technique, excessive consumption of carbohydrate food and beverages, ill effects of use of tobacco and alcohol consumption on oral health which in turn will lead to cause various dental problems starting from dental caries to more severe oral health issues like carcinoma. Hence better oral health literacy is required for having thorough understanding and knowledge in regards to significance of good oral health, its promotion and prevention of oral diseases.

Keywords: oral health literacy, oral diseases, prevention (maximum 6 words)

Biography:

Prof (Dr). Ramesh Nagarajappa, graduated from the prestigious Bapuji Dental College and Hospital, Davangere, India in 1999. I am presently working as a Professor and Head, in the Department of Public Health Dentistry affiliated to Siksha 'O' Anusandhan (Deemed to be University) at Bhubaneswar in India. I have a post-graduation teaching experience of over 22 years and guiding both PhD and MDS students. I have also authored 132 publications in various international and national reputed journals. Been a regular reviewer too in many journals. I do have an experience of delivering scientific presentations and chairing scientific sessions in various conferences.

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Evaluation and comparison of anti-inflammatory properties of Ibuprofen using two drug delivery system after third molar surgery- Using chitosan microspheres as a carrier for local drug delivery in to the third molar socket and through oral route.

Dr.Balamurugan.R MDS (OMFS)*
Oral and Maxillofacial Surgeon and Oral Implantologist RYA COSMO Foundation, India

The purpose of this study is to evaluate the implant stability and marginal bone level changes of straight and conical implants during the implant healing process. A total of 32 titanium dental implants with a length of 9 mm or 11 mm were installed in the maxilla and the mandible according to the manufacturer's instructions. A resonance frequency analyzer was used to measure the implant stability quotient (ISQ) at the time of implant placement and after 2 weeks, 4 weeks, 6 weeks, 8 weeks, 10 weeks, and 12 weeks of healing. The changes in the peri-implant marginal bone level were evaluated from digital radiographic films taken at the time of implant placement and after 4 weeks, 8 weeks, and 12 weeks of healing. The preliminary results of this study revealed higher ISQ values and better healing tendency for conical implants in comparison with straight implants in the maxilla. Similar ISQ values and healing tendency were observed for straight and conical implants in the mandible. No significant differences in marginal bone loss were found between the straight and conical implants. However, in the mandible, slightly more marginal bone loss was found with the conical implants than straight implants after 12 weeks of healing. In conclusion, ISQ healing tendency and marginal bone loss are influenced by implant macro-design and jaw regions. Straight implants revealed similar ISQ healing tendency and marginal bone loss in both the mandible and maxilla. Conical implants were confirmed more beneficial for maintenance of implant stability and marginal bone level in the maxilla.

Keywords: Dentistry; trauma of maxillofacial region; dentoalveolar surgeries; pathologies of maxillofacial region; bone grafts; dental implants; temporomandibular joint disorders, cleft anomalies, reconstruction of jaws.

Biography:

Dr.Balamurugan.R is an Oral and Maxillofacial Surgeon and Oral Implantologist from Chennai, India. He initiated his professional career in the field of dentistry and continued his specialisation in the path of Oral and Maxillofacial Surgery (India) and Fellowship in Oral Implantology (International Congress of Oral Implantologists ICOI, USA). His field of expertise in basic dental treatments, dento-alveolar surgeries, maxillofacial trauma, dental implants, medical emergencies, pathologies associated with maxillofacial region, TMJ related disorders. He was awarded as the best PEER REVIEWER by Star Dental Centre Pvt Ltd, India for his sincerity and dedication towards work by adhering to the timelines with a prompt reviewing process. He holds various International and National peer reviewed paper publication that adds credit to his career. He is associated with International and National journals as editor and reviewer board member and he has also been invited as a keynote speaker globally. He also encourages and motivates the authors to explore with new innovative ideas in the field of research. Currently, he is a researcher and walks in the right path of motivation by providing a heart of service for the patients as an Oral and Maxillofacial Surgeon in RYA Cosmo Foundation, Chennai, India.

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Factors affecting the technical efficiency of rural primary health care centers in Hamadan, Iran: data envelopment analysis and Tobit regression

Saeed Mohammadpour[1]* , Javad Javan Noughabi[2] , Ali Vafaee Najar[2] , Moharram Zangeneh[3] , Shaghayegh Yousef[4] , Mojtaba Nouhi[5] and Reza Jahangiri[1]

[1]Department of Health Economics, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran.
[2]Social Determinants of Health Research Center, Faculty of Health, Mashhad University of Medical Sciences, Mashhad, Iran.
[3]Department of Health Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran.
[4]Mashhad University of Medical Sciences, Mashhad, Iran.
[5]Health Equity Research Center, Tehran University of Medical Sciences, Tehran, Iran.

Studying and monitoring the efficiency of service providers in the health system has a special place and although studies have been conducted in this field in Iran, but so far a study that examines the efficiency of rural health centers by data envelopment analysis and determining the factors affecting The inefficiency of these centers has not been done in Iran

The aim of present study was estimate the technical efficiency of Health houses and ascertain factors that affect this efficiency. This is a Longitudinal study of rural primary health care centers in Hamadan province (2002-2016). Data Envelopment Analysis was employed to estimate technical efficiency of sampled health facilities while Panel Tobit Analysis was applied to predict factors associated with efficiency levels. The outputs were child mortality rate under one year of age and child mortality rate one year to five years of age. The input was Behvarzes (rural health workers). The results of efficiency analysis showed that the average efficiency scores of the centers had a fluctuating trend during the period of the study, but the average performance scores generally decreased in 2016, as compared with 2002. Number of physicians and rural primary healthcare centers per population had a positive statistically significant and the number of midwives and the total fertility per population had a negative statistically significant effect on efficiency. The findings suggest some level of wastage of health resources in primary health centers.. Behvarz functions in providing primary care services can be considered in the reallocation and optimal use of available resources at the level of rural health centers.

Keywords: Resource Allocation; Efficiency, Organizational; Regression Analysis; Primary Health Care; Rural Health Services.

Biography:

He was born in 1989 in Mashhad. I received a bachelor's degree in health service management from Isfahan University of Medical Sciences. After that, I received a master's degree in health services management from Mashhad University of Medical Sciences. I am currently a PhD student in Health Economics at Iran University of Medical Sciences.

Rapamycin as a potential agent against oral cancer: Mechanisms of action

Sofia Lappas*, Sara Benchekroun, Meriem Hammache and Abdelhabib Semlali
Groupe de recherche en écologie buccale, Faculté de médecine dentaire, Université Laval, Québec (Qc) G1V 0A6, Canada

Treatment of oral cancer is based exclusively on surgery combined with or without chemotherapy. However, this treatment has several side effects. Targeting a new, more effective therapy has become an urgent matter. The literature shows that inhibition of the mTOR pathway could be a potential therapeutic target. This pathway has been identified as the target of rapamycin; hence the objective of this project is to study the therapeutic effect of rapamycin in oral cancer. Epithelial gingival cancer cells (Ca9-22) and epithelial normal gingival cells (GMSM-K) were stimulated with different concentrations of rapamycin to assess proliferation by MTT assay, cytotoxicity by LDH assay, colony formation with crystal violet, Ca9-22 cell migration by the scratch method as well as apoptosis and autophagy by flow cytometry. The expression of proteins involved in the cell cycle (cyclin D1, p15, p21, p27) and autophagy (LC3B, p62) as well as the expression of oncogenic genes (Bcl-2, ERBB2, RET and JND) and tumor suppressor genes (ACTB and HPRT1) were determined by quantitative PCR. The cancer signaling pathways were evaluated by western blot. Our results showed that rapamycin decreases cell proliferation and colony formation in a dose-dependent matter only in cancer cells and induces cytotoxicity as well as apoptosis, autophagy and cell migration. The effects of rapamycin pass primarily through the MAPKase, Wnt and NF-κB signaling pathways. Finally, rapamycin reduces the expression of certain oncogenic genes and stimulates the expression of tumor suppressor genes. These results indicate that rapamycin could be a potential agent for the treatment of oral cancer and for a prevention strategy. This research is funded by the Émile Beaulieu Foundation.

Keywords: Rapamycin; oral cancer; apoptosis; autophagy; oxidative stress

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2. Dreyer, C. et al. 2006. "PI3K and mTOR signaling pathways: perspectives of the use of rapamycin and its derivatives in targeted anti-tumor therapy", Bulletin du cancer: 31-40

Biography:

Sofia Lappas is a student at the Faculty of Dental Medicine at Laval University. She works under the supervision of Dr Abdelhabib Semlali from the Oral Ecology Research Center on a theme based on the use of natural products or their derivatives in the therapy of oral cancer. Sofia Lappas greatly contributes to the use of rapamycin as an inhibitor of the mTOR pathway as an alternative or complementary treatment to chemotherapy to fight this type of cancer.

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Implementation of Principles of Personalized Medicine in the Scope of Dentistry- A Literature Review

Dr. Sirma Todorova Angelova, DMD, PhD*
Medical University "Prof. Dr. Paraskev Stoyanov"-Varna, city of Varna, Bulgaria.

Most diseases which affect human organism are influenced by functions, activities and interactions among a great variety of genes. Studies concern the role and significance of genetics and genome for the diagnostics and treatment of clinically manifested disorders. The utilization of genes' based information in the sphere of medicine- and dental medicine-related care is associated to target approaches for maintenance and improvement of individual oral-dental health. Nowadays the conception of dental medicine corresponds to the purpose of optimization of the interrelations between systemic and oral health by performance of complex personally addressed diagnostic, therapeutic and preventive measures. The necessity is to be differentiated levels of the risk of onset and progression of oral-dental disturbances. Personalized dentistry correlates to the potentials of clinical decisions based on thorough analyses of genetic, behavioral and environmental parameters. In the context of multi-factorial and poly-pathogenic nature of oral diseases, personalized pediatric dentistry focuses on interactions between clinical, genome-related and individual characteristics in definite periods of childhood. Researches ascertain that 40% to 60% of the cases of caries susceptibility are genetics'-related, including mutations and polymorphism of separate nucleotides. The gene LYZL2 participates in the antibacterial caries protection. The gene AJAP1 influences the development of teeth structures. In time detection and investigation of these genes facilitate the more efficient prognosis and treatment of caries. A longitudinal study in a cohort of 314 twins confirms the idea of inheritance of tooth decay. Some genes reflect upon the interrelations between host and microorganisms into periodontal tissues, with enhanced activity of pro-inflammatory cytokines. Explorers establish that variations of CDKN2BAS chromosome 9 significantly correlate to the clinical manifestation of aggressive periodontitis. Data about genome and proteome combined with individual oral microbiological profile provide proper therapeutic care of application of antibiotics, non-steroid anti-inflammatory drugs and restorative procedures.

Keywords: personalized medicine, dentistry, tooth decay, periodontal diseases, screening, prophylaxis;

Biography:

Dr. Sirma Todorova Angelova, DMD, PhD, Chief Assistant-Professor at the Department of Pediatric Dentistry, Faculty of Dental Medicine, Medical University "Prof. Dr. Paraskev Stoyanov"-Varna In 2005 Angelova gained a Master degree of International Financial Affairs at the University of Economics in Varna, Bulgaria. In 2011 Angelova gained a Master Degree of Dental Medicine at the Medical University-Varna. Since 2011 Angelova has been working as an Assistant-Professor at Medical University-Varna and in 2018 gained an academic degree of Chief-Assistant. She gained a Certificate of Specialization of Pediatric Dentistry in 2015. In 2017 Angelova gained a postgraduate degree after accomplishment of an independent research on the topic of "Caries Risk Assessment and Prevention in Children Suffering from Some Renal Disorders". In 2019 was issued the monograph entitled "Epigenetic and Genetic Aspects of Oral Health in Children with Pyelonephritis" authored by Sirma Todorova Angelova. She authored and co-authored more than 75 papers and participated in more than 60 scientific congresses. Her research interests are in the scope of interactions between environmental factors, common status, oral-dental health and prophylactic cares directed towards optimization of the oral-dental health condition in children suffering from common diseases.

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Periodontal Health and Systemic Health: It's All Linked

Dr. Sharayu R Dhande*
M.A Rangoonwala College of Dental Sciences and Research Centre, Pune, india

The modern era of the study of the association between periodontal and systemic health initiated with epidemiological evidence of the potential link between periodontal diseases and numerous systemic inflammatory conditions. Periodontal diseases are associated with chronic Gram negative infections, which result in local and systemic elevations of proinflammatory prostaglandins and cytokines. Furthermore, there is ample evidence that periodontal bacteria frequently enter the circulation. The study of mechanisms linking oral and systemic health also prompted a resurgence of our interest in biomarkers present in GCF and saliva. The literature published till date on "subgingival microbiome" also advanced our knowledge of the virulence potential of the microbiota on cardiovascular, nervous, renal, respiratory and reproductive systems. The literature published on metabolic activities of the oral microbiome will allow the testing of hypotheses set forth to explain its role in systemic adverse outcomes and the potential discovery of new mechanisms. The new insights generated by this new era of systems biology will unravel a myriad of candidate biomarkers, opening up new opportunities for meaningful advances on how we diagnose periodontal diseases and their effects on systemic health. As a result, in depth studies on periodontal health and its effects on various systems of human body is essential.

Keywords: periodontal health, periodontal medicine, systemic health

Biography:

Dr Sharayu R Dhande has expertise in the field of Periodontology and Oral Implantology and has been associated with M. A Rangoonwala College of Dental Sciences and Research Centre, Pune since her BDS. She was awarded " Special Jury Award " for "The Best UG student" by Famdent Excellence in Dentistry Awards (FEDA). She also received "Best Paper Presentation" at 27th Annual National Conference of Indian Society of Oral Implantologists, 2021. She has numerous National and International Scientific Research publications to her credit till date. She has been invited as a guest speaker at national and international levels. She has keen interest in Periodontal Regeneration and Oral Implantology especially Basal Implantology. She has interest in research too and has been currently working on one of the topic of her interest : Dentinal Hypersensitivity. Recently, she has been invited as a 'Guest Speaker' at "World Dental Science Congress" which will be held during June 13-15, 2022 in Orlando, USA. She has authored and contributed in many textbooks. Recently, one of her manuscript titled "Air Powder Polishing : An Update" has been selected as a book chapter in book titled : Recent Advances in Medicine and Medical Research". She has been a part of numerous health camps.

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DAY 1

POSTER PRESENTATIONS

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Corrosion Behavior of some Ni-Cr and Co-Cr dental alloys

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Ni-Cr and Co–Cr alloys have been used in dentistry for porcelain-fused-to-metal (PFM) crowns due to their biocompatibility, wear resistance, long service duration, good mechanical properties, and last but not least, superior resistance to corrosion. Non-precious alloys have the benefit of an improved elastic modulus in comparison with the precious dental alloys, which allow thinner substructures to be used in metal-ceramic restorations and result in a smaller amount of tissue destruction in the crowns' preparation. The present study evaluated and compared the corrosion behavior of two NiCr- and two CoCr-based dental materials in Ringer solution, using the following techniques: potentiostatic polarization curves, (chronoamperometry), microstructural analysis and EIS (electrochemical impedance spectroscopy). Corrosion potential, corrosion rate and pitting potential measurements have been carried out. The behavior under service conditions has been evaluated by means of electrochemical impedance spectroscopy whose spectra have been fitted to an equivalent circuit which has allowed to determine the characteristic parameters of the process. The results obtained in this investigation showed that for the NiCr-based specimens the stability of the passive layer was destroyed after polarization and a development and growth of stable pits was found in the microstructural analysis after electrochemical treatment.

Keywords: dental alloys, corrosion, elastic modulus, Ni-Cr, Co-Cr, EIS

Biography:

Cristina Jiménez Marcos is a student of the Master's Degree in Advanced Industrial Technologies and Processes at the University of Las Palmas de Gran Canaria. Graduated with honours in high school at the Cairasco de Figueroa Secondary School in 2017, she obtained her degree in Mechanical Engineering at the ULPGC in 2021. She has participated in two research conferences and has published two articles on a new biomaterial, applied in the medical field.

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Comparative study of different worldwide materials for prosthodontic restoration

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Many alloys are available for prosthodontic restorations and among them nickel-based alloys are widely used in the porcelain-fused-to-metal and casting crown and bridge. This is due to their simple fabrication process, low cost and, not less important, to their corrosion resistance. Even the nickel-chromium alloys form a thin protective oxide film on the surface, they show unstable galvanic corrosion and also they corrode in physiological solutions such as balanced salt, human saliva, artificial saliva and artificial sweat solutions. Despite all these, the use of Ni-Cr dental alloys is increasing. Many types of Ni-Cr alloys are found in the world markets and contain Fe, Mo, Mn, Cu, Nb, Al and Si in their composition. The present paper made a comparative study of six Ni-Cr dental alloys from USA, Romania and Germany using microstructure analysis, Open Circuit Potential (EOC), Potentiodynamic Polarization and EIS technique. All alloys examined are under the influence of an anodic control, due to the formation of protective layers, most likely of oxide, on the surface of the alloys. The alloys studied can be divided into two categories according to the type of corrosion observed. A uniform general corrosion behavior that was found at the surface of the two Ni-Cr alloys and a localized in points corrosion found in the others Ni-Cr alloys. In terms of susceptibility to corrosion, findings in this study show from the impedance spectra analysis that all alloys investigated have more than adequate corrosion resistance in artificial saliva.

Keywords: dental alloys, corrosion, Ni-Cr, EIS

Biography:

Alberto Daniel Rico Cano is Ph.D student at the Mechanical Engineer Department of Las Palmas de Gran Canaria. Master in renewable energies at the Universidad Europea de Canarias in 2019 and degree in Mechanical Engineering at the ULPGC in 2018. He worked designing the European Comision Sustainable Energy and Climate Action Plan (SECAP) for two councils of Gran Canaria as energy advisor, participated in two research conferences and has published two articles on a new biomaterial.

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Antibiotic prophylaxis in dental treatments – expected endocarditis prophylaxis

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Introduction: Basically, the term prophylaxis implies, that the chosen antibiotic is given before the start of the dental treatment or dental surgery. The aim of perioperative antibiotic prophylaxis is to prevent or reduce the risk of superficial and deep postoperative wound infections or other postoperative infectious complications (e. g. sepsis). Before starting a dental treatment especialy a surcical in riskpatients dental treatment; Mouthwash with 0.2% chlorhexidine solution should be carried out for 30 seconds to reduce the number of bacteria and it is of course obligate that all dental plaque is removed through a professional dental cleaning. While the rules for endocarditis prophylaxis are very precisely defined the other indications have to be weighed up in each case. [1,2,3]

Patients with joint prostheses: Before the implantation of joint prostheses, a dental examination and remediation of possible sources of infection (Mouthwash with 0.2% chlorhexidine and professional dental cleaning) should always be carried out in order to prevent bacterial colonization of the foreign material introduced. Also if the endoprosthesis has healed and there are no other risk factors (e. g. diabetes mellitus, immunosuppression, smocking etc.), the routine use of antibiotics in dental treatments is controversial and should be carefully considered. [5,6]

Implantation and bone augumentation: Several studies have shown that dentists routinely use antibiotics for prophylaxis on dental implants. There is a moderate level evidence to suggest that preoperative prophylactic antibiotics reduce the risk of implant loss by up to 2%. Patients who smoked appear to be at greater risk of infection.Therefore, prophylactic antibiotic use is probably not required for single implant placement in low-risk patients. In the case of bone augmentation with autologous bone, studies have shown that systemic antibiotic administration is indicated as a preoperative single dose to avoid postoperative infections. If bone alloplasti or xenogenic materials are used for augmentation, prophylaxis is recommended. [3,7,8]

Diabetes: The individual risk of each patient should be estimated on the basis of general risk factors (age, smoking, overweight, severity of the disease, current HbA1c value) depending on the severity of the intervention. Before extensive dental surgery, it is important Mouthwash with 0.2% chlorhexidine and professional dental cleaning before the treatment. Also here the routine use of antibiotics in dental treatments for patients with diabetes patients is not indicated. [9,10]

Bisphosphonates: Antibiotic prophylaxis is not necessary for nonsurgical dental treatments. If dental surgical interventions are necessary, antibioticprophylaxis is required. The therapy is carried out for three days or until the corresponding inflammatory, clinical changes have subsided. The operations them selves should be carried out as atraumatically as possible. The plastic covering of the exposed bone must be carried out. Also here before starting the treatment Mouthwash with 0.2% chlorhexidine and professional dental cleaning is obligate.[11,12]

Conclusions: Antibiotics often do not lead to an improved outcome and are not always nesessary. The range of indications is becoming increasingly narrower. Dentists must base their decision to prescribe antibiotics on evidence-based studies and thus achieve the goal of optimally treating their patients without losing sight of the development of resistance. Very importatn in any dental treatment in so called risk patients is Mouthwash with 0.2% chlorhexidine for 30s and professional dental cleaning.

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Biography:

Dr. Staedt .H completed in PhD in 2010, He has work in Assistant Dentist of 2010 to 2012 and He has Partner in a private practice for 5 years. Dr. Staedt .H have a Master of Science in oral surgery and Implantology in 2016. Present he is working on Master of Science in esthetic reconstructive dentistry

NOTE:

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