

DAY 1

Workshop



25th International Conference on

Dental Treatment

September 10-11, 2018 | Zurich, Switzerland

September 10-11, 2018
Zurich, Switzerland

Tristan Staas, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

OPEN YOUR EYES! MODERN IMPLANTOLOGY

Tristan Staas

Founder, Staas & Bergmans, Netherlands

In this masterclass we will discuss why immediate (re) placement is the first choice of treatment, how to plan an anterior case and look at surgical and prosthetic procedures. How to achieve a predictable and harmonious esthetic outcome in the anterior zone with immediate implantology; an evidence based biological concept in 3 dimensions. This lecture is about planning, surgical procedures, temporary and final restorations, and will reform some dogma's from the past about immediate (re)placement. We will also highlight the importance of the technical procedures and selection of materials.



Biography

Tristan Staas graduated from the University of Utrecht in the Netherlands in 1988. Together with his wife who is also a dentist, they founded Staas and Bergmans Zorgvooruwmond in 1990, a praxis for general dentistry, and clinic for aesthetic dentistry and implantology in 's-Hertogenbosch. In 2012 they founded a second office, Staas and Bergmans Expertisevooruwmond, a partnership clinic consisting of various dental specialists working as a team treating patients needing complex therapy. Tristan has focused his practice and teaching interests on immediate implant placement in the aesthetic zone and collaborates with other clinicians working together in their practices in the Netherlands. He provides instruction to colleagues on immediate replacements, aesthetic solutions and the use of 3D technics, and is performing research on these procedures and long-term outcomes.

t.staas@gmail.com

DAY 1

Scientific Tracks & Abstracts



25th International Conference on

Dental Treatment

September 10-11, 2018 | Zurich, Switzerland

DAY 1

September 10, 2018

Sessions

Gerodontology | Laser Dentistry | Oral
Implantology | Orthodontics

Session Chair

Tristan Staas

Founder, Staas & Bergmans, Netherlands

Session Chair

Beatrijs Deruyter

KU Leuven Periodontal Department, Belgium

Session Introduction

Title: **Zygomatic implant treatment: A new minimally invasive technique with piezoelectric instrumentation**

Andrea Tedesco, University of Pisa, Italy

Title: **The importance of intra & extra oral infection control for dental implant treatment**

Nobuko Kashiwai, CEO, HAG Creation Ltd., Japan

Title: **Hibiscus sabdariffa natural fibres as an alternate material in reinforcing acrylic denture bases**

Anisa Vahed & Shalini Singh, Durban University of Technology, South Africa

Title: **The use of FRP lasers: A necessity in long term periodontal treatment strategy**

Beatrijs Deruyter, KU Leuven Periodontal Department, Belgium

Title: **Laser activated irrigation (LAI)**

Barbara Skrlj Golob, University of Genova, Italy

September 10-11, 2018
Zurich, Switzerland

Andrea Tedesco, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

ZYGOMATIC IMPLANT TREATMENT: A NEW MINIMALLY INVASIVE TECHNIQUE WITH PIEZOELECTRIC INSTRUMENTATION

Andrea Tedesco

University of Pisa, Italy

Background: The zygomatic implants represent a valid alternative to regenerative surgery of severe maxillary atrophies. With a right clinical indication and a correct training for the operator it is possible to treat complex cases with immediate loading to reduce the patient's discomfort. Actually the classic technique with burs and intra-sinusal approach is very destructive way. The minimally invasive technique developed by author with ESACROM, Imola, Italy, using piezoelectric dedicated inserts, helps the surgeon to realize an easy surgery, less demolishing, more predictable because the osteotomy preparation is always outside the sinus, totally with use of piezoelectric instrumentation.

Aim & Introduction: The zygomatic implants increase quality of life and can be considered as the treatment of choice for the totally edentulous patient suffering of atrophic jaws. Usually, the zygomatic implant site preparation is still performed with long drills difficult to control. In addition, the classic intrasinus approach involves the maxillary sinus, increasing the morbidity, the operating times, and other complications difficult to resolve. The aim of this work is to evaluate a new minimally invasive technique using piezoelectric dedicated inserts and extra-sinusal approach.

Material & Methods: A total of 62 conventional implants were placed together with 53 zygomatic implants. The patients, 17 male and 9 female, no smokers, in good health, with a removable prosthesis, were followed up 24 months. After CT cone beam and software planning design, each surgery was performed placing for each patient two or four straight implants in the frontal area and two zygomatic implants in the zygomatic bone. Some cases have been treated with 4 zygomatic implants. Only one surgery was performed placing an oncology zygomatic implant. After planning the surgery a stereolithographic model was created for each patient. The insertion torque was over 35 Nc. The surgeries were performed under general anesthesia.

Results: No zygomatic implant was lost during the observation period. The survival rate for the zygomatic implants was 100% over an average of 24 months observation period. Two conventional implants were lost and there were no significant complications.

Discussion: The zygomatic implants are a valid alternative to grafting procedure for the rehabilitation of the atrophic maxilla, in many cases using an immediate function protocols. The zygomatic implants were placed outside the sinus and anchored in the maxillary alveolar process and in the zygomatic cortical bone.

Conclusion: Extrasinusal approach: no sinus complication. Piezoelectric instrumentation (ESACROM, Imola, Italy)

Dedicated inserts

No instruments vibration

No dangerous

The surgery follows 3 steps: more accuracy

Greater visibility

Less time

Less post-operative discomfort.

Biography

Tedesco Andrea Graduated in "Dentistry and Prosthodontic" at the University of Florence, Italy. He specialized in "Oral Surgery" at the Oral and Maxillofacial Department of the Traumatologic Orthopaedic Center Hospital of Florence. Post-graduate at the Oral and Maxillofacial Department of the Guy's and St. Thomas Hospital, London, UK. He is enrolled in the General Dental Council of London Member of the European Association for Osseointegration. Fellow Membership, Royal Society of Medicine, London, UK. Honorary Member of Oral Surgery Academy, London UK. He devised a new Zygomatic Minimally Invasive Technique associated with Piezoelectric Surgery. Winner for best Oral Presentation: "The treatment of atrophic maxilla using zygomatic implants" Advances in Maxillofacial Implantology", The Royal Society of Medicine, London, UK. Fellow Research Oral Surgery Department - Pisa University - Dir. Prof. M. Gabriele. Currently he published his first book entitled "Gli impianti zygomatici: attualita' nelle riabilitazioni implanto-protetiche dei mascellari atrofici" by Quintessenza Editor. Mr Tedesco is a specialist Oral Surgeon and is an expert in Zygomatic Implant Dentistry and has recently published a book on this topic "Gli impianti zygomatici: attualita' nelle riabilitazioni implanto-protetiche dei mascellari atrofici". He's recently devised a new minimally invasive technique for the use of zygomatic implants associated with Piezoelectric Surgery.

tedescoandrea25@gmail.com

September 10-11, 2018
Zurich, Switzerland

Nobuko Kashiwai, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

THE IMPORTANCE OF INTRA AND EXTRA ORAL INFECTION CONTROL FOR DENTAL IMPLANT TREATMENT

Nobuko Kashiwai

CEO, HAG Creation Ltd., Japan

Intra and extra oral infection control is a key factor for the successful implant treatment. Pre-operative prevention of infection is required for an achievement of osseointegration, including general health control from systematic diseases, for instance diabetes mellitus. Symptom of periodontitis should be treated before implant placement to prevent transient bacillaemia and peri-implantitis. For preventing the operator and assistants from transmission of infectious diseases, it is also important to avoid the blood exposure during the surgical procedure. However, little is known about the severity and extent of blood contamination on surgical tools and personal protect equipments (PPE) for assistants during the surgery, such risk and the solution will be described during this presentation. And for post-operative prevention of infection, cleaning and sterilization of instruments and equipments are very important because almost of them are not dispensible. All bloody contamination should be cleaned completely to prevent an allergic reaction with difference of DNA.

Human has much normal bacterial flora in oral cavity, but how to create predictable and long term success of implant treatment is up to management of biofilm and prevention of inflammation occurred with infection. Infection control is very important but on the other hands, establishment of rapport between patients and dental faculties makes continuous supportive periodontal treatment as goal.

Biography

Nobuko Kashiwai has completed her Master degree in Oral Science from Tohoku University in 2011 and belongs to the same university as PhD student. She is the CEO of HAG Creation Ltds., and to educate the importance of infection control for dental implant treatment to dentists and dental hygienists. She has published more than four papers in journals organized by some academic societies.

n.kashiwai@vega.ocn.ne.jp

September 10-11, 2018
Zurich, Switzerland

A Vahed et al., J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

HIBISCUS SABDARIFFA NATURAL FIBRES AS AN ALTERNATE MATERIAL IN REINFORCING ACRYLIC DENTURE BASES

A Vahed¹, S Singh¹ and K Okeke²

¹Durban University of Technology, South Africa

²Federal University of Technology, Nigeria

Natural fibres such as *Hibiscus sabdariffa* have become popular in reinforcing polymers due to their high toughness and strength. The low specific gravity, low abrasion, nontoxicity, renewability, availability, and environmentally friendly characteristics have promoted its use in the reinforcement of polymers. Despite *Hibiscus sabdariffa* being versatile and abundant, there is limited evidence of its use in Dental Technology, specifically in the reinforcement of denture base acrylics. This paper examines the hardness and wear resistance of *Hibiscus sabdariffa* fibre reinforced poly (methyl methacrylate) (PMMA) denture bases. An experimental research design within a quantitative framework was used. Two sample groups of PMMA specimens were prepared namely, the control (without fibres) and the test (7.5 weight% fibres). There were 27 PMMA specimens in each sample group. The surface hardness of the PMMA specimens (n=17 per group) were measured using a Barcol Impressor (Model GYZJ-934-1 from Barber-Colman Company). The specific wear rate was measured using a pin-on-disc set-up under ambient conditions at 200 g (n=5 per group) and 500 g (n=5 per group) fixed loads with a speed of 300 rpm for 60 seconds. Analysis of the results was obtained using a one-way ANOVA, an independent t-test and Mann Whitney test ($p < 0.05$). While there were no significant differences in the hardness value ($p < 0.707$) and the specific wear rate at 200 g load ($p < 0.156$), the specific wear rate at 500 g load ($p < 0.044$) between the two sample groups were significantly different. Results showed that mercerizing and pre-impregnating *Hibiscus sabdariffa* fibres potentially improves the wear resistance of PMMA denture bases, however, not the overall hardness. Using natural fibres to improve the mechanical properties of PMMA denture bases aligns with South Africa's national development plan, specifically in terms of using natural

resources to promote a greener and sustainable environment.

Biography

Anisa Vahed obtained her doctorate in 2014. She is a HELTASA TAU Fellow, awardee of the Vice Chancellor's Distinguished Teaching Award, DENTASA Educator of the Year Award and the HELTASA/CHE Award in Teaching Excellence. Dr Vahed is a senior lecturer/dental technologist in the Department of Dental Sciences, Faculty of Health Sciences at the Durban University of Technology. Her research interests include the teaching and supervision of both undergraduate and postgraduate research, metallographic structure of newly developed dental materials, and the teaching and learning through discipline-specific games to enable students' access to, and acquisition of, knowledge. She has delivered numerous papers, workshops and seminars on these interests in a range of national and international settings. Dr Vahed serves on the South African Dental Technicians Council, which is a Ministerial appointment.

Shalini Singh is an Associate Professor in the Department of Operations and Quality Management at the Durban University of Technology. Her qualifications are in Chemistry and Quality. She has also lectured at Universities in Switzerland, Germany and India. Shalini also serves as a moderator, examiner and supervisor at DUT and in a number of universities in South Africa and was a member of the Higher Education Quality Forum for Quality. She chaired the regional branch for the Southern African Society for Quality. Prof Singh has published posters and publications in international conferences, has several publications in accredited academic journals, and presented in Air pollution, Quality, Nanotechnology and Research Methodology related conferences nationally and internationally. She co-authored many chapters of books in Nanotechnology, Research Supervision and Work-Integrated Learning. Shalini hosts a research group focussing on quality practices in Nano-engineering material (NEM) and food security.

anisav@dut.ac.za
shalinis@dut.ac.za

September 10-11, 2018

Zurich, Switzerland

Beatrijs Deruyter, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

THE USE OF FRP LASERS: A NECESSITY IN LONG TERM PERIODONTAL TREATMENT STRATEGY

Beatrijs Deruyter

KU Leuven, Belgium

Background & Aim: Since the high prevalence, worldwide, of periodontitis and peri-implantitis, both proven to contribute and/or exacerbate systemic diseases by their inflammatory response, they are becoming a major concern in general health care. The search for finding a cost-effective and repeatable treatment for the majority of the population, without causing detrimental side effects, are a necessity and has been a question mark for many years. Since traditional treatment protocols cannot meet to all our expectations and have some contraindications, the rational of one stage full mouth disinfection (OFMD) has been the new paradigm in treatment strategy. However, a number of important details can be optimized. Lasers have taken an eminent place in periodontal care in the last two decades. The use of free running pulsed (FRP) lasers in particular, might solve some shortcomings in the traditional approach. The reason behind this is the way FRP lasers, by their very short bursts of energy, cannot only take care of bacterial and viral components of the periodontal infection, in hard as well as in soft tissue, but also by dissipation of that energy, have the capability to contribute to repair and at certain level regeneration. This can contribute to preservation of soft and hard tissue, in a cost-effective way.

Materials & Methods: Fifty-three patients having dpsi3+ or 4, undergoing all the same protocol of a true OFMD of scaling with adjunct of FRP laser treatment, with or without antibacterial support as indicated along microbiological assessment. Periodontal parameters were compared to baseline, at 2, 8 up to 14 months, without retreatment. Clinical outcome of the parameters for all cases were statistically significant improved to baseline.

Biography

Beatrijs Deruyter has graduated from Brussels Free University, Dental School in 1980. She was an Instructor at Brugmann Teaching Hospital during 1980-1984. She is having a Private practice 1981 until present & uses lasers since 1991. She did her Sola Master in Laser dentistry 2003-2004 Universities Vienna (Austria), Master in Laser-Dentistry Academy for Laser-dentistry (ALD) 2004-2009 (US) and MSc in Laser-Dentistry from University of Genoa, Italy. PhDs program "Lasers in periodontology". She is an Instructor at Periodontal Department, Oral Health Science, KU Leuven, Belgium since 2014 until present and also an Recipient of the ALD Leon Goldman award 2017.

admin@beatrijsderuyter.be

September 10-11, 2018
Zurich, Switzerland

Barbara Škrlić Golob, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

LASER ACTIVATED IRRIGATION (LAI)

Barbara Škrlić Golob

University of Genova, Italy

The fundamental aim of dentistry is to maintain healthy natural dentition, while the main goal of endodontic treatment is to preserve functional teeth. During the endodontic treatment the pulp tissue, bacteria and bacterial products are removed. Endodontic treatment is complex procedure and for success, we have to follow strict protocol: accurate diagnosis, access cavity preparation, shaping and irrigation – chemomechanical preparation, obturation and final restoration. Until recently, mechanical instrumentation was the most important part of endodontic treatment, but more than 35% of the root canal surface remained untouched by instrumentation. Furthermore, during the instrumentation dentin debris and smear layer are produced. Biofilm, smear layer and dentin debris may be removed only by irrigation; therefore, different irrigation techniques (manual and mechanical) have been developed. One of the latest is LAI (laser-activated irrigation). Laser can be used in two ways: (1) directly, by irradiating the dentinal wall (CLE-conventional laser endodontology), or (2) indirectly, by irradiating/activating photoactive substances (PAD – photo activated disinfection) or irrigants (LAIs.I.). Erbium laser family presents one of the newer technologies in

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

Biography

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

barbara@dentalnistudio.com

DAY 1
September 10, 2018

Sessions

Oral & Maxillofacial Surgery | Restorative
Dentistry | Oral Pathology | Oral Marketing
Management

Session Chair

Frank Halling

University of Marburg, Germany

Session Chair

Nobuko Kashiwai

CEO, HAG Creation Ltd., Japan

Session Introduction

Title: Bone regeneration using fresh frozen allografts combined with stem cells

Pablo Esteban Castán, Clínica Esteban Castán, Spain

Title: Buccal Smear: A promising tool in the diagnosis of diabetes mellitus

Nandita Shenoy, Manipal Academy of Higher Education, India

Title: Why occlusion shouldn't be so confusing- a simple path to sustainable understanding and practicing of occlusion principles

Kariem M. El Helow, King Abdullah Medical City, Saudi Arabia

Title: Immediate implant supported full-arch restorations fabricated with an intraoral welding technique in Taiwan patients with intact opposite dentition

Chien-Hai Li, Chuan Sheng Dental Clinic, China

September 10-11, 2018

Zurich, Switzerland

Pablo Esteban Castán, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

BONE REGENERATION USING FRESH FROZEN ALLOGRAFTS COMBINED WITH STEM CELLS

Pablo Esteban Castán

Clinica Esteban Castan, Spain

Bone regeneration is one of the most useful technique to avoid early and future complications in oral implantology. Many times, incorrect three-dimensional position of the implants is the reason why our treatments can fail, but we can avoid it having a enough amount of bone support. In the literarture, almost every authors agree that the autologous bone is the "gold standard", but there are some disadvantages in the use of it. When the lack of bone that we have to regenerate is big, the intraoral donnor sites can not supply all the necessary amount, and we need to use other materials. Allografts are the most similar "sccafold" to autologous bone, and we supply the lack of cellularity doing a bone marrow aspiration to obtend messenquimal stem cells.

Biography

Pablo Esteban Castán has studied Odontology in European University of Madrid. He completed his studies doing differents Clincial Residents in Spain and in EEUU. Eight years ago he and his work team developed a technique to form new bone using allografts and mesenchymal stem cells. He has a private dental office focussed on Microsurgery and Oral Implantology in Zaragoza, Spain.

pablo@clinicaestebancastan.com

September 10-11, 2018
Zurich, Switzerland

Nandita Shenoy et al., J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

BUCCAL SMEAR: A PROMISING TOOL IN THE DIAGNOSIS OF DIABETES MELLITUS

Nandita Shenoy, Aditya Gupta and Junaid Ahmed

Manipal Academy of Higher Education, India

Introduction: Diabetes adversely affects the morphology of buccal mucosa and may compromise tissue function to favours the occurrence of oral infections and neoplasia. The morphologic and functional changes in oral mucosa can be studied at the cellular level by using exfoliative cytology which can help the diagnosis, with better patient acceptability as it is a painless, non-invasive and less time-consuming procedure.

Subjects & Methods: A total of 180 patients were included in the study. Patients were also grouped into the following three categories for further analysis based on their glycohemoglobin (GHb) levels: Controlled diabetics (CD) - GHb \leq 6%, Uncontrolled diabetics (UCD) - GHb $>$ 6% and \leq 8% and Non-diabetics (ND) - GHb $>$ 8%. Smears were taken from clinically normal buccal mucosa of these subjects and stained to look for any abnormalities.

Results: Statistical analysis of the data obtained showed that the MV of meisels cells from non-diabetic patients was significantly higher ($p=0.008$) than cells from diabetic subjects. Percentage of micronuclei was significantly higher ($p=0.00$) in uncontrolled diabetics as compared to controlled diabetics and non-diabetics.

Conclusion: Diabetes mellitus induces definite morphological and morphometric changes in the exfoliated buccal mucosal cells. However, for establishing exfoliative cytology as a diagnostic tool for diabetes, further studies are required on a larger scale.

Biography

Nandita Shenoy has graduated in 2004 from Yenepoya Dental College with gold medal for best outgoing student. She completed her post graduate training from MCODS Manipal in 2008. She joined MCODS Mangalore in 2008 as an Asst. Professor & is currently an Associate Professor in Oral Medicine and Radiology. Dr. Nandita is having 54 published papers in peer reviewed journals till date and 2 ICMR grants. She is a firm believer in inter disciplinary interaction and research & have co-authored papers and conducted research relevant to my specialty along with various departments like Geriatrics, Diabetology ,Oncology, Pharmacology, Dermatology, Infectious Diseases, and General Medicine. She have completed advanced training and certification in CBCT applications and interpretation. She is also serving as the Radiation Safety officer for MCODS, Mangalore. She is the recipient of Dentsply proactive junior academician in her specialty.

nandita.shenoy@manipal.edu

September 10-11, 2018

Zurich, Switzerland

Kariem M Elhelow, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

WHY OCCLUSION SHOULDN'T BE SO CONFUSING - A SIMPLE PATH TO SUSTAINABLE UNDERSTANDING AND PRACTICING OF OCCLUSION PRINCIPLES

Kariem M Elhelow

King Abdullah Medical City, Saudi Arabia

Despite the advances in prosthetic dentistry, the clinical steps of optimizing teeth contacts remains challenging for many dentists. The wellbeing of teeth, their supporting structures and the musculoskeletal complex is closely related to the occlusion stability. Dental occlusion is something far beyond the mere contact of the surfaces of teeth or prostheses; a fact that turned the subject of occlusion into a seemingly complex subject both to understand and to practice. The meticulous gnathological approaches described in literature made the practice of occlusal treatments even more intimidating. Transcribing the biomechanics of jaw and teeth movements makes the goals of occlusal rehabilitation very clear and easy to implement. The purpose of this article is to draw a roadmap for understanding and implementing the core evidence based occlusal principles in a simple, yet in depth, way. This would provide a context for showing that occlusion is not as complicated as literatures might reflect.

Possessing a clear perception of what a healthy occlusion should be like is very rewarding to both the diagnosis and the treatment process. The core occlusal concepts are simple to comprehend and easy to practice, with added value of predictability, comfort, function and esthetics to the dental treatment.

Biography

Kariem M Elhelow is working as a Consultant of Implant and Maxillofacial Prosthodontics, in King Abdullah Medical City, Makkah, Saudi Arabia. He worked as a Prosthodontist in Alexandria University as well as Salametek Dental Centers. He received his BDS, and MS from Alexandria University, and PhD from Cairo University, Egypt. He is also a fellow of the ICOI. He is an author and international public speaker lecturing on implant, maxillofacial prosthodontics, occlusion and digital dentistry.

elhelow.k@kamc.med.sa

September 10-11, 2018
Zurich, Switzerland

Chien-Hai Li, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

IMMEDIATE IMPLANT SUPPORTED FULL-ARCH RESTORATIONS FABRICATED WITH AN INTRAORAL WELDING TECHNIQUE IN TAIWAN PATIENTS WITH INTACT OPPOSITE DENTITION

Chien-Hai Li

Chuan Sheng Dental Clinic, Taiwan

Twenty-two implants placed in four Taiwan patients to support immediate full-arch restorations (one mandible and three maxilla) with intact opposite dentition. Passive-fit metal-reinforced frameworks were fabricated chair side by intra oral welding method and all patients had definitive restorations on surgery day. All restorations were fabricated with implant-level components, screw retained and inflicted full occlusal loading in the first day. Patients were recalled seven days, one month, three months and six months, with the follow-up period being over nine months until April 2016. All implants were osseointegrated, no infection was observed around the implants and no fracture or cracking was found on the restorations. All patients were satisfied with the restorations.

Recent Publications

1. Li C H and Chou C T (2014) Bone sparing implant removal without trephine via internal separation of the titanium body with a carbide bur. *Int J Oral Maxillofac Surg.* 43(2):248-50.

2. Chienhai Li (2017) Immediate implant supported full-arch restorations fabricated with an intraoral welding technique in Taiwan patients with intact opposite dentition-case series. *Journal of Dentistry and Oral Biology* 2(11):1070.

Biography

Chien-Hai Li has completed his DDS at China Medical College, Taiwan in 2003 and MSc at Goethe University, Germany in 2011. He has published papers in *IJOMS* and *JDOB*.

unclehai@seed.net.tw

DAY 2

Workshop



25th International Conference on

Dental Treatment

September 10-11, 2018 | Zurich, Switzerland

September 10-11, 2018
Zurich, Switzerland

Hassan H. Koshak, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008



DENTAL SUTURING MATERIALS AND TECHNIQUES

Hassan H. Koshak

Ministry of Interior Security Forces Medical Services, Saudi Arabia

Successful dental suturing or oral surgery is dependent on accurate coaptation of the flaps. Various methods and materials have been used (sutures, stents, paste dressings, tissue tacks and adhesives) for precise flap placement. Suturing has remained the most popular method. The term "suture" describes any strand of material utilized to ligate blood vessels or approximate tissues. The primary objective of dental suturing is to position and secure surgical flaps in order to promote optimal healing (first/primary intention) provides support for tissue margin until they heal, without dead space and reduce postoperative pain. Inadequate suturing may result in flap skipping, exposed bone/necrosis, pain and delayed wound healing. A variety of suture materials and suture/needle combinations are available. The choice of suture for a particular procedure is based on the known physical and biologic characteristics of the suture material and the healing properties of the sutured tissues.

The selection of suture material is based on: The condition of the wound, the tissues to be repaired, the tensile strength of the suture material, knot-- holding characteristics of the suture material, and the reaction of surrounding tissues to the suture materials. Knowledge of the suture, needles (type, size, shape),

instruments, and techniques are absolutely necessary in order to be a competent surgeon. There is no suture superior to the others in each aspect. The differences in terms of tissue reaction and bacterial adhesion between sutures should be always considered in the selection of the appropriate suturing material. Delicate and proper soft tissue handling during various suturing techniques can insure optimal tissue healing and high esthetic result.

Biography

Hassan H Koshak is Consultant in Periodontics and Implant Dentistry. Head of the Dental Department and Dental Educator at Comprehensive Specialized Polyclinic, Ministry of Interior Security Forces Medical Services, Jeddah, Kingdom of Saudi Arabia, where he has been since 2016. He received a Saudi Fellowship In Dental Implant from the Saudi Commission for Health Specialties 2014-2016. He received a Saudi Board In Periodontics from the Saudi Commission for Health Specialties 2012-2014. He received his Master of Science in Dentistry (MSD) and a Clinical Certificate In Periodontics from Riyadh Colleges of Dentistry and Pharmacy 2009-2012, Riyadh, KSA, With Honours. Also he received his Advanced Education in General Dentistry (AEGD) from University of South California School of Dentistry 2006-2008.

koshak-hh@hotmail.com

DAY 2

Scientific Tracks & Abstracts



25th International Conference on

Dental Treatment

September 10-11, 2018 | Zurich, Switzerland

DAY 2

September 11, 2018

Sessions

Prosthodontics | Advanced Dental Treatments |
Endodontics | Digital Dentistry

Session Chair

Andrea Tedesco

University of Pisa, Italy

Session Co-Chair

Priscila Ladeira Casado

Fluminense Federal University, Brazil

Session Introduction

Title: Exploring the potential of a modified nano-dental eggshell-titanium dioxide material against erosive acids

Stanley Onwubu, Durban University of Technology, South Africa

Title: Peri-implant disease: How to proceed in clinical practice?

Priscila Ladeira Casado, Fluminense Federal University, Brazil

Title: New approaches in management of Endodontic pain – making sense of the evidence

Pavel Cherkas, University of Toronto, Canada

Title: Clinical Trial of Pulpotomy in permanent teeth by using three different bio-ceramic materials

Feroze Ali, Liaquat University of Medical & Health Sciences, Pakistan

Title: Effect of different gamma radiation doses on the mechanical properties of esthetic restorations

Ahmed Adel A. Aziz & Rana Tawfiq Ahmed, Egyptian Russian University, Egypt

Title: Assessment of knowledge of use of electronic cigarettes and its harmful effects amongst young adults

Vidushi Gupta & Madhu Sharma, Manipal Academy of Higher Education, India

EuroSciCon

Dental Treatment 2018

September 10-11, 2018
Zurich, Switzerland

Stanley C Onwubu et al., J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

EXPLORING THE POTENTIAL OF A MODIFIED NANO-DENTAL EGGSHELL-TITANIUM DIOXIDE MATERIAL AGAINST EROSIVE ACIDS

Stanley C Onwubu¹, Phumlane S Mdluli¹ and Shenuka Singh²

¹Durban University of Technology, South Africa

²University of KwaZulu-Natal, Campus Name, South Africa

Objective: This paper reports on the buffering and acid-resistant properties of a modified eggshell-titanium composite against erosive acids.

Materials & Methods: Eggshell-titanium EB-TiO₂ was prepared by ball milling eggshell powder and titanium dioxide. Fourier transform infrared spectroscopy (FTIR), x-ray diffraction (XRD), transmission electron microscopy (TEM), were used to characterize EB-TiO₂. The buffering property against lactic and citric acid at pH 2, 4, and 5 were measured using pH meter. Five brands of toothpastes (Colgate, Colgate Sensitive, Aquafresh, Oralwise, and Sensodyne) were used to assess the acid-resistant properties of EB-TiO₂. Enamel model were simulated by dissolving each brand of toothpastes with eggshell (control) and EB-TiO₂. The samples were exposed to citric and lactic acid of pH 2. The average slope (kPa/s) was measured using a pressure sensor. ANOVA was used to analyze the kPa/s values ($\alpha=0.05$).

Results: The FTIR, XRD analysis suggests the surface modification of EB-TiO₂. The TEM image revealed nonhomogeneous shaped particles with an average size of 13 nm. The pH test results showed that the buffering properties of eggshell and EB-TiO₂ were comparable. Significant differences were observed in the

acid resistance properties of the samples exposed to both citric and lactic acids ($P<0.05$). The colgate toothpaste infused with eggshell powder had the highest mean kPa/s values, whereas EB-TiO₂ had the lowest kPa/s values.

Conclusion: The salient features of this study indicate that modification of eggshell with titanium dioxide does not affect its carbonate buffering properties. Connecting the kPa/s values to acid resistant properties, EB-TiO₂ effectively reduces erosive attacks when added to toothpaste.

Biography

Stanley C Onwubu has graduated his Master's degree at the Durban University of Technology cum laude in 2016. He is currently in his third year studying towards his PhD at Durban University of Technology. He has published articles and book chapters in reputed journals. He strongly has passion in the development of new dental materials from recycled materials. He has previously worked on new abrasive materials using waste eggshells for polishing poly methyl methacrylate resin dentures. His current doctoral research focus on remineralization of damaged teeth using nano-sized titanium dioxide modified eggshell powder with a view of developing a mathematical model to predict dentine remineralization.

profstan4christ@yahoo.com

September 10-11, 2018
Zurich, Switzerland

Priscila Ladeira Casado, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

PERI-IMPLANT DISEASES: HOW TO PROCEED IN CLINICAL PRACTICE?

Priscila Ladeira Casado

Fluminense Federal University, Brazil

Peri-implant diseases present in two forms – peri-implant mucositis and peri-implantitis. Both diseases are characterized by an inflammatory reaction in the tissues surrounding an implant. Studies have estimated that peri-implant mucositis has a prevalence ranging from 50% to 80%, while peri-implantitis affects approximately 12%-40% of implants and 28%-56% of patients, respectively. In addition, it was evident that the lack of annual supportive therapy in patients diagnosed with peri-implant mucositis is associated with increased risk for conversion of mucositis to peri-implantitis. Therefore, early detection of peri-implant breakdown, as well as monitoring progression of bone loss is extremely important. The aim of this study is to present the clinical protocol for peri-implant diseases supportive therapy, the clinical experience based on science. How could the diagnosis be refined and specific in dental practice? How to predict failures?

What can we do to improve the future and minimize peri-implant diseases rates?.

Biography

Dr. Priscila Ladeira Casado is Adjunct Professor of the Department of Odontoclinics at the Fluminense Federal University, Professor of the Postgraduate Program in Dentistry (PhD and MSc) at the Fluminense Federal University and Coordinator at the Research Area of Implantology at the Fluminense Federal University in Brazil. Dr. Casado has experience in dentistry teaching, with emphasis in Implantology and Periodontology associated with genetic basis and is reviewer of various National and International Journals. Currently, Dr. Casado researches aim to provide a better understanding of oral diseases of complex etiology.

plcasado@hotmail.com

September 10-11, 2018

Zurich, Switzerland

Pavel Cherkas, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

NEW APPROACHES IN MANAGEMENT OF ENDODONTIC PAIN – MAKING SENSE OF THE EVIDENCE

Pavel Cherkas

University of Toronto, Canada

This evidence-based lecture presents a broad overview of contemporary literature and clinical and scientific experience in acute and chronic endodontic pain management. Comprehensive understanding of different pain mechanisms provides an ultimate way for managing dental pain emergencies and post-operative conditions. The latest information on pharmacological and technological approaches will be provided to help clinicians with successful management of different types of endodontic emergencies. What is the best time for treatment of irreversible pulpitis? Can we predict which patients are more likely to experience pain after an endodontic therapy? What doesn't work for post-op pain? What are genetic determinants of pain? What is a personalized medicine concept and how to apply it in dentistry? At the conclusion, participants should be able to: discuss different pain mechanisms; discuss the genetic determinants of pain and; apply a personalized medicine concept in dentistry.

Biography

Pavel Cherkas has graduated from the Faculty of Dentistry at the Hebrew University of Jerusalem, Israel and also successfully defended his MMedSc and PhD theses in Neuroscience at the same university. He also graduated from a MSc Endodontics program at the University of Toronto. He has conducted pain research at several Universities worldwide such as Cambridge (UK), Leipzig (Germany) and Tokyo (Japan). He has served as a Resident Member on the Regenerative Endodontics Committee of the American Association of Endodontists. Currently, he is an Assistant Professor at the University of Toronto and an active member of Dr. Sessle's laboratory where he continues to conduct research on the central mechanisms of orofacial pain. He is also involved in clinical research, has lectured nationally and internationally and has published extensively in peer-reviewed journals and textbook chapters. .

Pavel.Cherkas@dentistry.utoronto.ca

September 10-11, 2018
Zurich, Switzerland

Feroze Ali, J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

CLINICAL TRIAL OF PULPOTOMY IN PERMANENT TEETH BY USING THREE DIFFERENT BIO-CERAMIC MATERIALS

Feroze Ali

Liaquat University of Medical & Health Sciences, Pakistan

Despite the high success rate of non-surgical root canal treatment of permanent teeth in caries-exposed pulp, the procedure is more complicated and expensive. Moreover, the longevity of root-treated teeth is lesser than teeth with sound pulp. Complete pulpotomy is vital pulp therapy procedure in which the coronal inflamed pulp tissues are removed while radicular tissues are preserved. The procedure usually recommended for immature teeth with reversible pulpitis. The radicular pulp is preserved in order to ensure the continued root formation. Advent of new calcium-silicate materials like MTA made the paradigm shift in the field of endodontic and vital and regenerative pulp therapy procedures. These materials are found to be promoting/inducing the pulp healing and regenerative potential of pulp. In current research papers these materials have been used for either partial or complete pulpotomy in caries-exposed mature permanent teeth with favorable outcome. In our study which was performed

at the Liaquat University of Medical & Health Sciences, Jamshoro, Pakistan twenty mature permanent teeth with irreversible pulpitis treated by complete pulpotomy procedure with calcium-silicate based materials. So, in this paper we will highlight the outcome of our study and factors which determine the success of pulpotomy procedure in conjunction with clinical technique.

Biography

Feroze Ali has completed his FCPS (Fellow of College of Physicians & Surgeons) from College of Physicians & Surgeons, Pakistan and Bachelor of Dentistry from Liaquat Medical College, Jamshoro, Pakistan. He is the Dean of Faculty of Dentistry, Liaquat University of Medical & Health Sciences, Jamshoro, Pakistan. He has published more than 30 papers in reputed journals.

feroze.kalhor@lumhs.edu.pk

September 10-11, 2018

Zurich, Switzerland

Ahmed Adel A Aziz et al., J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

EFFECT OF DIFFERENT GAMMA RADIATION DOSES ON THE MECHANICAL PROPERTIES OF ESTHETIC RESTORATIONS

Ahmed Adel A Aziz¹ and Rana Ahmed Tawfiq²¹October 6 University, Egypt²Egyptian Russian University, Egypt

This *in-vitro* study investigated effect of different gamma radiation doses on the mechanical properties of esthetic restorations. A total of 84 standardized specimens were prepared for this study. Each 21 of them were prepared using the following four resin composites: Ceram X (Dentsply), Z350 xt (3M ESPE), Xtra fill (Voco) and Grandio (Voco). Then, the 21 specimens were divided as follows: 3 specimens representing the control group (C) were cured using wood pecker LED light cure unit, 9 specimens were subjected to gamma radiation after curing (IaC) from which three were subjected with a dose of 10 Gy (IaC-10), the other three with 30Gy (IaC-30) and the last three with 60 Gy (IaC-60); the last 9 specimens were subjected to gamma radiation before curing (IbC) from which three were subjected with a dose of 10 Gy (IbC-10), the other three with 30 Gy (IbC-30) and the last three with 60 Gy (IbC-60). All specimens were subjected to measurement of surface microhardness in Vickers hardness tester. The depth of cure was calculated by obtaining the microhardness ratio through dividing Vickers hardness number (VHN) of the bottom surface by VHN of the top surface. Data was then recorded, tabulated and statistically analyzed. Most results of the specimens' top showed statistically significant increase in mean microhardness of IaC

and IbC sub-groups in relevance to the control groups. Most results of the specimens' top showed statistically significant increase in mean microhardness of IbC sub-group in relevance to IaC sub-group. Results of (B/T) showed increase in mean depth of cure of IbC sub-groups in relevance to the control group and to IaC sub-groups, where most of them are statistically significant. Pearson correlation coefficient between top and bottom was found to be statistically significant ($r=0.9$). In conclusion, surface micro hardness of different composite resin have improved following being subjected to gamma radiation by various doses, on the other hand most of the results of the depth of cure was low for the group IaC and has improved for the group IbC.

Biography

Dr Ahmed is holding doctorate degree from Cairo University, Egypt. He is now holding the position of Assistant professor in the Restorative Dentistry department at the Egyptian Russian University in Egypt.

Dr Rana is now a student in the final year at faculty of dentistry, Egyptian Russian University, Egypt.

dr_ahmed_adel@hotmail.com
ranaahmed@gmail.com

September 10-11, 2018
Zurich, Switzerland

Vidushi Gupta et al., J Dent Craniofac Res 2018, Volume 3
DOI: 10.21767/2576-392X-C3-008

ASSESSMENT OF KNOWLEDGE OF USE OF ELECTRONIC CIGARETTES AND ITS HARMFUL EFFECTS AMONGST YOUNG ADULTS

Vidushi Gupta and **Madhu Sharma**

Manipal Academy of Higher Education, India

Background: E-cigarette smoking is becoming a fast growing trend amongst the young adults today. The practice of young adults smoking E-cigarettes may have been adopted as a way of smoking cessation or just to follow a trend. However, most people still remain unaware of the detrimental effects of smoking E-cigarettes. The present study was carried out to assess the prevalence of the habit of smoking E-cigarettes and the awareness of harmful effects of the same amongst adults aged 18-23 years.

Methods: A questionnaire adopted and modified for using Google forms from Farsalinos K E et al. was used in the study. Participants were requested to fill the survey irrespective of their smoking status after taking consent.

Results: The cohort had 710 samples from 6 countries, with the mean age of 20.65±1.701 years. There were 412 females and 298 males in the study. Most of the respondents were from India, the second most common participants were from USA followed by UK. The most common mode of information on existence of E-cigarettes to the participants was from family members, friends followed by the internet search engines and TV/ newspaper advertisements. E-Cigarettes had a prevalence of 5.63% among

the cohort (40/710). Among these, 26 participants have been using E-cigarettes for less than 1 year and 2 participants for more than 5 years. E-cigarette smokers also experienced sore throat, cough, headache, dizziness and sleeplessness. Less than half of the young adults were unaware of the amount of nicotine in the E-liquid.

Conclusion: Majority of the young population was unaware about the use and harmful effects of E-cigarette. Attempts should be made to spread awareness using media campaigns, educational videos and online surveys.

Biography

Vidushi Gupta is a student of Year III, Bachelors of Dental Sciences in Manipal College of Dental Sciences, Manipal Academy of Higher Education, Mangalore, Karnataka, India.

Madhu Sharma is a student of Year III, Bachelors of Dental Sciences in Manipal College of Dental Sciences, Manipal Academy of Higher Education, Mangalore, Karnataka, India.

guptavidushi28@gmail.com
ms7070433@gmail.com