



5<sup>th</sup> Edition of International Conference on

# DENTISTRY AND ORAL HEALTH

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# **ABOUT MAGNUS GROUP**

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

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the



# **ABOUT AMERICAN DENTAL 2022**

American Dental 2022 welcomes members from different parts of the world to join our Online Event - "5th Edition of International Conference on Dentistry and Oral Health" scheduled during April 25-27, 2022. It includes prompt Keynote presentations, Oral presentations, and Poster presentations, interactive and informal exchanges. This is going to be one of the most remarkable events of the year. Through the theme "SMILE: Shaping dentistry with Multifaceted Innovations and Leveraging Enhanced technologies" conference will explore the advances in the field. American Dental 2022 goal is to bring together bright minds to give talks that are ideas-focused, and on a wide range of scientific sessions, to faster learning inspiration. It will provide an international platform to share expertise, foster collaborations, discover new information, and stay current with trends and networking.







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**David G Gillam**Queen Mary University of London, UK

# The management of mucogingival conditions (Gingival recession)

ccording to Cortellini & Bissada (2018) gingival recession is defined as an apical shift of the gingival margin with Arespect to the cemento-enamel junction (CEJ), with associated clinical attachment loss (CAL) and exposure of the root surface to the oral environment. There are several clinical outcomes associated with gingival recession, e.g., 1) Aesthetics, 2) Pain e.g., Dentine hypersensitivity or root sensitivity, 3) Periodontal concerns such as plaque retention and inflammation, and 4) Root caries and non-carious cervical lesions (NCCL). Dentine hypersensitivity (DH) is usually one of the main symptoms of gingival recession that may encourage patients to seek advice from a dental professional. The role of gingival recession in Dentine hypersensitivity should, however, is considered as a predisposing factor rather than the primary cause of the problem. Several classifications such as the Miller classification (I-IV) have been used by clinicians to facilitate both a diagnosis and a template for a therapeutic strategy for predicting clinical outcomes (e.g., successful root coverage), however more recently the classification (RT1 - RT3) described by Cairo et al. (2011) has been recommended in the World Workshop in Periodontal and Peri-implant diseases and conditions (2017). The management of gingival recession and any associated sequelae, such as dentine hypersensitivity, caries, NCCL, or aesthetics, may therefore be based on either a non-surgical or surgical approach depending on the extent and severity of the problem. Examples of non-surgical and surgical approaches and procedures in treating gingival recession will be addressed in this presentation. The importance of subsequent preventive measures, including the removal or modification of any predisposing factors, together with monitoring the condition over time preventing any further deterioration of the problem is, however an essential component of managing the problem.

### **Audience Take Away:**

- Provide clinicians with an update on the causes of gingival recession with/or without dentine hypersensitivity
- Provide clinicians with an update on the classification and management of gingival recession following the World Workshop in Periodontics 2017
- Provide guidance to clinicians on the clinical outcomes arising from gingival recession
- Inform clinicians on the importance of predisposing factors in gingival recession, together with the importance of the periodontal (gingival) biotype which can affect the outcome of periodontal treatment and root-coverage procedures.
- Provide practical tips on how to manage gingival recession and associated conditions using both non-surgical and surgical approaches.

#### **Biography**

I graduated from Edinburgh Dental School in 1977 and have been involved in Dentistry over the last 40 years. I have worked in both clinical practice and in University Dental Hospitals as well as in Industry (1998-2001) initially with SmithKline Beecham and subsequently with Block Drug Company. From 2003 to 2008 I worked with a Clinical Research Organization and currently I am a Clinical Reader (Associate Professor) in Translational Research in Relation to Dentistry at the Bart's and the London School of Medicine and Dentistry QMUL in London (2009-). My main research interest is in the Management of Dentine Hypersensitivity and I have published over 100 papers on numerous dental topics as well as contributing to several books as Editor and several book chapters as a contributor.



Sergio charifker\* & Leandro Lecio
University of Guarulhos, Brazil

### 3D Ridge Augmentation Concept

lthough implant treatment has evolved since first Branemark rehabilitation the need for a bone housing is still Aprimary task. Many times oral surgeon face huge bone defects that limit implant supported prosthesis and have to decide what kind of regenerative treatment to proceed, and can be lost among the variety of procedures that are find in literature. One of the biggest problems is how to summarize the surgical protocol with many different options, from autologous block graft to xenogenic and synthetic particles. Our purpose is to create a method to link the regenerative protocol to the amount of bone defect, in order to give predictability to treatment. The classification of the timepoint, immediate or late, lead to a maneuver that tend to maintain the ridge architecture, and have the benefit of most esthetic result, and can be classified as ridge preservation - 4 walls defect - or ridge regeneration - 3 walls defect associated or not with the immediacy of implantation when the approach is simultaneous to tooth loss. On the other hand, after the healing period, in the late approach, the objective of treatment is to restore the ridge architecture, and aesthetic results can be achieved but with less predictability. The predictability of treatment can be guarantee when rigid protocols have been followed, and the knowledge of bone defect classification assures the right treatment to be done. This lecture will show the different aspect of horizontal bone defect, and the influence of cancelous bone between the buccal and lingual cortical and how it permits a more flexible treatment protocol, and how the lack of cancelous bone limits it. At least, how to give predictability when treating 3d defect (vertical bone defect), and the new perspective in biomaterials that can be used.

### **Audience Take Away:**

- How to diagnose and classify ridge defects
- From the bone defect, the audience will learn how to plan the most indicated treatment
- The protocol shown in the lecture presents the expertise of the authors, and can be replicable
- The treatment protocol had been made to make simple the choice of regenerative technique to be use

### **Biography**

Dr. Sergio Charifker had graduated in dentistry in 2003 (Universidade Federal de Pernambuco) and post graduated in Facial Surgical Anatomy (Sao Leopoldo Mandic - Campinas/SP) and Oral and Maxillofacial Surgery (Universidade Federal de Pernambuco). Has the master degree in Implantology (Sao Leopoldo Mandic - Campinas/SP) and still running PHD in implantology at Universidade de Guarulhos/SP. Coordinate post degree courses in Implantology and are consultant of Criteria Biomaterials.



**Preetinder Singh**Academy of Oral Surgery, USA

### Blood & its products as regenerative agents in Dentistry

Bone regeneration in dentistry involves the use of cells, biological or artificial biometric scaffolds, and bio factors that promote cell growth and differentiation along complex pathways to repair the tissue. Growth factors have a crucial role in this process since they influence chemotaxis, differentiation, proliferation and synthetic activity of bone cells, thereby regulating physiological remodeling and bone healing. That makes the use of the autologous and recombinant growth factors (GF) a rapidly growing field of regenerative dentistry focusing on manipulating GF and secretory proteins to maximize the healing of bone and soft tissues. Most of the growth factors derived from autologous blood is released upon platelet activation, and their clinical use has been popularized with Platelet-rich plasma (PRP), Platelet rich fibrin (PRF) & its advancements namely A-PRF& i-PRF, Concentrated Growth Factors (CGF), Sticky Bone Concept etc. It is time to use this 'BLOOD' in different ways to achieve regenerative potentials in the field of dentistry.

### **Biography**

Dr. Preetinder Singh (MDS) is working as a Senior Professor in Department of Periodontology & Oral Implantology in SDD Hospital & Dental College, India and as a Senior Consultant in various dental offices around the country. Dr. Singh is AMBASSADOR, AMERICAN ACADEMY OF ORAL SURGERY. He is the Editor in Chief of Journal of Periodontal Medicine & Clinical Practice and Associate Editor of various other famous journals. He was awarded the Best Graduate Award and Gold Medal by Kurukshetra University, Haryana, India during his BDS, based on his outstanding academic record. He has a keen interest in academics, research and clinical practice. He has around 55 research publications in various national and international journals of repute. Dr. Singh is an invited senior reviewer for 5 leading international journals indexed in PUBMED. He also has three textbooks published internationally, attached to his career till date. Dr. Singh has a great interest in periodontal & implant research field and is an invited KEYNOTE speaker for corporate lectures on his expertise in dentistry at a national & international level. He also holds a place of doing the first study in INDIA on use of recombinant PDGF in treatment of gingival recession defects. He is presently working on microsurgery, advanced Implantology, PRF, and LANAP etc. Under his guidance and work, his department was awarded as the centre of excellence in dental implants in his state.





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**Maya Fedhila**University of Monastir, Tunisia

### Brown tumors of the jaws: A retrospective study

Brown tumors are a rare non-neoplastic bone lesion resulting from an abnormal bone metabolism such as the increase of osteoclastic activity and fibroblastic proliferation. Usually, they are found in severe and advanced forms of hyperparathyroidism (HPT), which is a common endocrine disorder characterized by hypercalcemia and the elevation of parathyroid hormone serum level. Three types of hyperparathyroidism may be associated with those brown lesions: A primary HPT characterized by an excessive parathyroid hormone (PTH) production and hypercalcemia (mostly due to a parathyroid adenoma); A secondary HPT: usually caused by vitamin D deficiency, malabsorption or hypercalciuria; Or a tertiary HPT, which develops from secondary hyperparathyroidism and evolves into a more severe circumstance with autonomous PTH secretion. The diagnosis of Brown tumors actually depends on the presence of one of the hyperparathyroidism described above, since histologically the aspect of Brown tumors cannot be distinguished from giant cell lesions features. Therefore, the diagnosis of a Brown tumor is reported when the pathology reveals a "giant cell lesion" and the medical investigation report hyperparathyroidism. The location of Brown tumors is often polyostotic but the involvement of the jaws is unusual since they are more commonly localized along long bones such as the pelvis, ribs, and clavicles. The aim of our work was to study the various anatomo-clinical, radiological, therapeutic, and evolutionary aspects of maxillary brown tumors (representing less than 2% of Brown tumors).

**Materials and methods:** Through our work, we report a retrospective study of Brown tumors of the jaws. Data were collected at the maxillofacial and plastic surgery department and at the dentistry department in « Sahloul hospital » for a period of 17 years from 2000 until 2019.

**Results:** 16 cases were enrolled in our study, presenting a mean age was 48-year-old. Brown tumors were associated with primary hyperparathyroidism resulting from parathyroid adenoma in 6 cases (38%) and 10 cases (62%) were related to hyperparathyroidism secondary to chronic kidney failure. Their location was mostly maxillary in 7 cases, mandibular in 5 cases, and bimaxillary in 4 cases. The treatment consisted of a unique parathyroidectomy for 11 patients and multiple para-thyroidectomies for 2 patients. 3 patients were treated with a maxillary resection. The evolution was favorable in 9 cases which presented a tumor regression and unfavorable in 3 cases. 3 patients were lost to follow-up and 1 patient died because of malignant hypercalcemia.

### **Audience Take Away:**

- This oral presentation illustrates 16 cases of Brown tumors' location practitioners are not used to encounter
- Through our work, the audience will acknowledge several aspects Brown tumors might present when they are located
  in the oral areasince we will expose various anatomo-clinical, radiological, therapeutic, and evolutionary aspects of
  several cases
- It also reminds the audience about the importance of their role in the diagnosis of oral lesion that handicap the patient but mostly turns to be the symptom of a dangerous condition affecting the entire body
- This lecture will recall the audience about the different forms and characteristics of a general condition being here the source of our lesion: the hyperparathyroidism
- Finally, our presentation will remind the oral surgeons that frequent calcium screening remains the optimal way to detect early hyperprathyroidism and therefore avoid eventual complications such as Brown tumors

### **Biography**

Dr Maya Fedhila is a last year dental student from the University of Monastir (Tunisia). She is about to complete her internship program in the Oral Surgery Department of the Sahloul Hospital. She will present her doctoral Thesis on December 2021 for the diploma of General Dentist. She aspires to pursue her specialization training in the United States as she will take the INBDE on April 2022. She has one article under reviewed in an indexed journal, and a second one under writing process about the study she conducted as her thesis.



**Muselmani Bashar** Tishreen University, Germany

### Orthodontic treatment with Damon Ultima, is it a new treatment method?

**Aim:** Objectives to investigate the skeletal and dental alveolar changes of patients with deferent malocclusion treated with Damon Ultima Brackets.

**Material and methods:** This retrospective cephalometric and clinical study was performed on a sample of 8 patients with aged 12-14 years with different malocclusion. 4 patients would be treated with the Damon Ultima, and 4 with the Damon Q.

**Results:** The groups of patients treated with Damon Ultima showed significantly better results compared to the other groups treated with Damon Q Brackets. Especially it was the angulation, rotation in / out, and the vertical torque.

**Conclusions:** Achieve high quality finishes with 1st, 2nd, and 3rd order tooth control with proper functional occlusion and archform (4th order) without bending archwires. Dramatically simplifies treatment mechanics that are so easy to use for clinicians and staff. Utilizing low treatment forces in all phases including Finishing with CuNiTi & TMA Archwires that are mor biologic and comfortable for patients.

### **Biography**

Bashar Muselmani had completed his PhD in Orthodontics - FSU, Germany, 1989. His memberships in German Orthodontic Society (1991-present) and his professional experience is Staff of Orthodontics Departments, Tishreen University – Latakia-Syria 1990 – 1995. He is a Tenured Professor of Orthodontics at Tishreen University, Latakia, Syria (2001-present). And also, his Current Position is Privet practice – Kaiserslautern – Germany since 2010. His skills are Self-ligation Damon system employed in private practice since 2010, 5 books published in the field of dentistry & orthodontics, and 6 research Publications. He is a speaker with national and international lectures on various fields of orthodontics Ormco speaker in Germany since 2015 Curs/ Seminar.



**Massimo Di Cesare** Private Practice, Italy

### Efficient solutions to reduce invasiveness of dental care

Towadays medical and dental care need to reduce invasiveness, reaching in the same time efficiency and excellence lack in results. The use of Dental Operating Microscope (DOM), Chairside Dentistry (CD) and a well- organized in-house lab with a skilled technician can boost clinical capabilities of a general dentist. In the same time, we can get efficiency and profitability of treatments together with better compliance of patients. Since the beginning of the 2000's the principles of minimally invasive dentistry have been widely promoted. It was proven that dentist do better restorative treatments under microscopic view, due to an improved precision in diagnosis and a contemporary proper completion of the treatment. Better visual acuity means increased manual skills, less effort and pleasure at work. Moreover, the clinician is able to be more conservative and respectful of dental and periodontal tissues. Coaxial light and high-resolution camera connected to the microscope by a beam splitter make possible filming our surgeries easily. Furthermore, dental team can better analyze the clinical procedures improving efficiency and effectiveness. Nowadays dentists do more aesthetic, biomimetic and predictable treatments that require less chair time with an increased success rate. The "Chairside Dentistry" solutions have shown many positive aspects to make the prosthetic workflow faster, less invasive and more precise as long as you have a very well organized and coordinated work team. Firstly, all the manufacturing processes of the prosthetic products can remain under control of the clinician in the dental office. Secondly, the operator-dependent errors are minimized compared to the conventional prosthetic protocol. Thirdly, dental CAD software gives the possibility to control easily paramount variables such as the thickness of preparations, the occlusal and interproximal contacts, shape and proportion of the teeth. Last but not least, the clinical experience of the dentist and the artistic sense of the technician can make a prosthetic artifact truly unique and we can safely state that the combined use of these two "Augmented Reality" (AR) methods (DOM and CD) ensures an enhanced approach to better and multifaceted treatments, and give people improved emotional experiences. Furthermore, with the AR, new and faster paths for training are opened and more efficient and minimally invasive care protocols can be written.

### **Audience Take Away:**

- You will appreciate how to best use "Augmented Reality" within an efficient dental team and in a well-organized dental practice. Simultaneously you can learn to reduce physical and psychological invasiveness of dental care
- Most of the dentist's decision-making problems arise from limited vision and consequent dilatation of operating times, disadvantaging ergonomics and patient compliance.
- Therefore, you can discover the hidden properties of your hands when your eyes are illuminated by enhanced vision and provide quality dental restorations in a short time and at better costs.

Is this research that other faculty could use to expand their research or teaching?

• Quality Video analysis of dental procedures can be considered very useful to improve our daily operativity and we will discover new educational opportunities for young clinicians. For experienced dentists it will be like embarking on a new and exciting work experience.

Does this provide a practical solution to a problem that could simplify or make a designer's job more efficient?

• Our working efficiency depends on our well-being and ability to instill confidence and optimism to patients and how much trust we can give to our staff. Likewise, the success of our work depends on how much humanity and creativity we can put into our work when the machines can do repetitive tasks for us.

Will it improve the accuracy of a design, or provide new information to assist in a design problem?

- Digital impression, virtual project, testing the best dental morphologies in occlusion, analyzing improved and simplified interproximal contacts and immediate proof of an artifact can make the digital prosthetic care a unique experience of excellence.
- Furthermore, the clinical experience of the dentist and the art of a talented dental designer will make our prosthesis truly special.

#### List all other benefits:

- Discovering working pleasure as if you were practicing your favorite sports
- · Learning and being surprised daily about the precision of your hands
- Unleashing the power of your ideas
- Boosting your business, making what you thought was not feasible

### **Biography**

Massimo Di Cesare graduated in Dentistry in 1991 and received his Post graduate in Orthodontics in 2016 at L'Aquila University. He carries out his professional practice privately, devoting himself to multidisciplinary treatments. He joined the research group in Conservative Dentistry of professors Goracci and Malagnino at "La Sapienza University "in Rome. Since 2019 he is following a specialization program in Oral Surgery with professors Matteo Chiapasco and Paolo Casentini in Milan. From 2020 he is in charge of teaching dental students and assistants at L'Aquila University. He has published 4 research articles and has participated as speaker at Italian conferences.



**Eduardo Rubio**University of Buenos Aires, Argentina

### Smile, the gate of the soul

Taking into account that the main subject of the scientific sessions is the smile, the conference will be focused on the importance of comprehensive diagnosis of the esqueletal problems before to start a dentistry treatment. We'll show cases with wrong diagnosis that put in compromise a good final result.

### **Audience Take Away:**

- The information will be helpful in order to systematizes a treatment plan
- That helps to avoid posterior surgical or conservative complications
- It helps to think on a patient as a complete unit, not only in the teeth

### **Biography**

Eduardo Rubio graduated as general dentist in the facualtad de Odontología, University of Buenos Aires in 1980. Obtained his PhD in the same University in 1983. Trained in oral and Maxillofacial Surgery at French Hospital (Buenos Aires City) during more than 20 years. Dr Rubio is devoted to orthognathic Surgery in private practice. He is head of four years Oral and Maxillofacial Surgery Program at the Universidad Católica Argentina, as well as a professor of the ungraduated program in the same University as well as Universidad of Buenos Aires.



**Enass Shamsy**Inaya Medical Colleges, Riyadh, Saudi Arabia

### Should smear layer be kept or removed from root canal?

Smear layer removal is still controversial since many years. Many researchers argue about the benefits of smear layer removal on the clinical outcome of endodontic therapy success. However, many researchers found out that the presence of smear layer in the root canal does not affect the outcome of root canal treatment. In addition, some researchers reported better results when smear layer was not removed. This argument among general practitioners, endodontists, and researchers indicates that there is still not a winner or loser and the dilemma of whether to keep or remove the smear layer before root canal obturation requires special attention and analysis in order to select the best treatment scenario according to the present case, as each case should be treated individually after balancing the pros and cons of keeping the smear layer or getting rid of it.

### **Audience Take Away:**

- Define the smear layer and identify its components
- Recognize the pros and cons of keeping the smear layer or removing it
- Evaluate the need to remove smear layer or keep it case by case
- Differentiate between methods of smear layer removal
- Select and apply the proper method for smear layer removal

### **Biography**

I studied dentistry at Aleppo University and graduated as DDS in 2008. I proceeded to post graduate studies and earned a Master in Endodontics and Conservative Dentistry in 2013. Since then, I started working in my private dental office and as a clinical supervisor in the dental Endodontics and Conservative Dentistry Department at University of Aleppo. Then, I worked as a lecturer at Al-Farabi Dental College in Riyadh / Saudi Arabia for two years. Currently, I am a lecturer at the Dental Health Care Department at Inaya Madical Colleges since 2017. During my working years, I gained experience in academic, clinical, and research aspects and I have several publications in reputable scientific journals.



Ozair Erfan\*<sup>1</sup>, Nadine von Krockow<sup>2</sup> & Amira Begic<sup>2</sup>

<sup>1</sup>Herat university, Afghanistan <sup>2</sup>Goethe University, Germany

# People knowledge and opinion about getting dental implant with other conventional treatment modalities in Herat city habitants, Afghanistan

People's understanding about dental implants and their knowledge is essential for translation into improved clinical care. Despite the rapid development of dentistry and improvements in general oral health care, tooth loss is still a significant problem among older people and individuals compromised by certain medical conditions and the general population.

**Aim and purpose:** To the best of the authors' knowledge, there is no existing dental literature regarding the patients' awareness, expectations, and level of Knowledge about dental implants in Afghanistan. Therefore, this study aimed to evaluate the dental patients' understanding, expectations, and status of dental implants compared with other treatment modalities as a treatment option for replacing missing teeth among a selected sample of Herat urban habitants in Herat, Afghanistan.

**Materials and Methods:** This descriptive cross-sectional study was done on the randomly selected 420 Heart city habitants over one month, from May to June 2021, to access the knowledge and opinion of Herat city habitants toward dental implants as an option for replacing missing teeth. An organized questionnaire collected the data with open questions and a direct introduction and demonstration of a short animation about the dental implant procedure. The data were categorized by similar answers, interred, and analyzed with IBM-SPSS version 25.

**Results:** Among the 420 participants in this study, 67.9% of respondents heard about dental implants, and 28.6% had information about dental implant surgical procedures. The more prominent source of their information was medical staff 35%, family and friends 29.6% and TV 21.4%. Among all participants, 59% preferred dental implants for their missing teeth replacement, and 3.8% received dental implants before. Out of all participants, 61% had trusted dental implant treatment in Afghanistan, and the common reason was well-experienced doctors 97.7%. Among all participants, 6.2% believed dental implant has a religious restriction, 11.4% thought it cause health issues. Gender had a significant role in the preference of treatment options for replacing missing teeth (p = 0.023). Education significantly had influenced the information about surgical procedures of dental implants (p = 0.007), knowledge about dental implants (p = 0.004), and priority of dental implants for missing teeth replacement (p < 0.05). The occupation and preference for missing teeth were not significant (p = 0.161). The people heard about dental implant had a significant opinion about dental implant survival rate (p < 0.05) and surgical procedure (p < 0.05). Among all participants, most of the young population believed there is no religious restriction with the dental implant than the old one (p < 0.05).

**Conclusion:** The survey concluded an unacceptable level of awareness regarding using dental implants as a treatment option for replacing missing teeth. Medical staff, family, and friends being the main source of information. The level of education has an essential role in knowledge and awareness about dental implants.

#### **Audience Take Away:**

- Level of people awareness about getting dental implant
- What are the main sources of people information about dental implant?
- This research is very close to other research done in the other countries
- I explain the main different between people agree or disagree with dental implant
- How we can introduce dental implant to society
- Explain the relation between age, gender, education... and getting dental implant

### **Biography**

Dr. Ozair Erfan studied Stomatology at the Kabul Medical University by MD degree (2010), Kabul, Afghanistan and graduated as Specialist of Oran and Maxillofacial Surgery from Kabul National and Specialized Hospital (2016), Kabul, Afghanistan and Master of Oral Implant in Goethe University, Frankfurt, Germany from 2020 until now. He started his career as lecture and head of Oral and Maxillofacial Surgery Department and director of research committee in Herat University, Stomatology Faculty, Herat, Afghanistan. He wrote many national and international articles and participate in many national and international conferences.



# Selma Saadaldin\*1, Alhanoof Aldegheishem<sup>2</sup>, Elzahraa Eldwakhly <sup>2,3</sup>, Marwa Salah Mostafa<sup>3</sup> and Mai Soliman<sup>3</sup>

<sup>1</sup>Schulich School of Medicine and Dentistry, Canada <sup>2</sup>Princess Nourah Bint Abdulrahman University, Saudi Arabia <sup>3</sup>Cairo University, Egypt

### Riboflavin mediated photo-illumination for bonding zirconia to tooth structure

hotodynamic therapy (PDT) is a photochemical reaction that causes selective minimally invasive and non-toxic destruction of a tissue using a photosensitiser and a light source and it can be used in treating localised microbial infections. Riboflavin (RF) is cross-linking photosensitiser-like agent that acts as an inhibitor of collagen degradation after the destructive activity of the acid-based bacteria, such as Streptococcus mutans (S. mutans). Mesoporous silica nanoparticles (MSN), which are a class of porous materials having a considerable number of pores and excellent surface area that load several amounts of drugs within for enhanced effectiveness. Objective of the current study is to formulate and characterize RF-loaded MSN (RF@MSN) in adhesive for bonding zirconia ceramic to tooth structure for potential application in crowns and bridge restorations. RF was loaded inside MSN to produce RF@MSN and doped with adhesive resin. The morphological characterization of the RF@MSN using scanning and transmission electron microscopy (SEM &TEM) showed round nanoparticles of size averaging 200-500 nm. Morphological and spectral characterizations of the nanoparticles were studied. RF@MSN in adhesive with two varying concentrations (0.25wt.% and 0.5 wt.%) were studied for the degree of conversion (DC), antimicrobial activity, cytotoxicity, and shear bond strength (SBS) after luting zirconia to tooth dentin samples. After activation with a diode laser, 0.5 wt.% RF@MSN samples showed the least DC scores (39.56 ± 5.54), while the highest SBS scores (1018 ± 78 MPa) were reported by control group. 0.5 wt.% RF@MSN samples showed the highest anti- microbial capacity for adhesive against S. mutans. Incorporation of RF@MSN in dentin adhesive showed improved mechanical and antibacterial efficacy after photo illumination following bonding zirconia to the tooth structure.

#### **Audience Take Away:**

- The results of the presentation are potential applications in crown and bridge restorations
- The outcomes can remarkably improve the antibacterial properties of the adhesive dental cement
- Presentation will show the potential improvement of the adhesive bonding properties of the tested adhesives cement after the application of photodynamic therapy
- Further studies, lasting around 6–12 months, sare suggested to be carried out to examine the efficacy of RF@MSN in the presence of photodynamic therapy by incorporating it into dental adhesive for bonding zirconia ceramic to tooth structure using multiple bacterial biofilms

### **Biography**

Dr. Selma Saadaldin earned her bachelor of Dental Surgery and Prosthodontic Masters sciences from Baghdad University, Iraq. She got her PhD in Dental materials from Western University, Canada. Dr. Saadaldin worked as faculty member at different dental schools such as Ajman University in United Arab Emirates, Taibah University and Princess Nourah University in Saudi Arabia. Currently Dr. Saadaldin is an assistant professor at Schulich School of Medicine and Dentistry at Western University.



### Jamal Hassan Assaf\*1 & Mauricio Barbieri Mezomo<sup>2</sup>

<sup>1</sup>Federal University of Santa Maria, Brazil <sup>2</sup>Franciscan University of Santa Maria, Brazil

# Orthodontic extrusion and vertical alveolar ridge augmentation: A case report step by step

Class 5 defects are characterized by reduced ridge height. Vertical ridge augmentation is indicated in situations in which the remaining amount of vertical bone is insufficient for anchorage of the implant or in which an unfavorable appearance of the soft tissue is expected owing to the lack of hard-tissue support. Vertical guided bone regeneration appears to be highly technique-sensitive and requires a long and controlled learning curve. A review reported failure rates ranging from 0% to 45% when using vertical guided bone regeneration. Recently, alternatives techniques are being evaluated in order to obtain better results with less morbidity. We present a clinical case of vertical enhancement of the alveolar ridge for further dental implant surgery.

### **Biography**

Dr. Jamal Hassan Assaf is an Associate Professor of the Federal University of Santa Maria, Brazil. He received his PhD degree in 2012 at São Leopoldo Mandic Institute and Dental Research Center, Campinas, Brazil. He dedicates himself primarily to the Private Practice. His research is clinical focused on regeneration and immediate implants in esthetic zone.



**Myung Jin Lee**Western Reserve University, USA

### Sirtuin6 activation ameliorates ligature-induced periodontitis in mice

**Purpose:** Periodontitis is an inflammatory disease caused by microorganisms that induce the destruction of periodontal tissue. Inflamed and damaged tissues produce various inflammatory cytokines. These cytokines activate osteoclast and finally induce loss of alveolar bone. However, molecular mechanisms involved in the rapid breakdown of periodontal tissue have not been elucidated yet. Sirtuins are known to exert an anti-inflammatory function and anti-bone resorption. We hypothesized that sirtuins have a protective role in periodontitis.

**Methods:** To understand the role of sirtuins in periodontitis, we developed periodontitis with ligature placement around maxillary left second molar in 8-week-old C57BL/6J male mice. Since the protein level of sirtuin6 (Sirt6) in alveolar bone lesion showed the most change among sirtuins, we performed that surgery on Sirt6 overexpressed Tg mice (Sirt6Tg) and checked phenotypes using microCT. Furthermore, the Sirt6 activator, MDL800, was used for therapeutic application in periodontitis through oral gavage.

**Results:** Pro-inflammatory cytokines and increasing osteoclast numbers were observed in alveolar bone tissue under periodontitis surgery. In the same condition, interestingly, the protein level of Sirt6 was the most reduced among sirtuins in alveolar bone tissue. As a result of micro-CT and CEJ-ABC distance, Sirt6Tg was observed to resist bone loss against ligature-induced periodontitis. Furthermore, the number of osteoclasts was significantly reduced in Sirt6Tg ligated mice compared to control ligated mice, although systemic inflammatory cytokines were not changed. To confirm the clinical significance, it was observed that bone loss was significantly reduced when the Sirt6 activator, MDL800, was treated in ligated mice.

**Conclusion:** Our findings demonstrate that Sirt6 activation prevents bone loss against ligature-induced periodontitis. Activation of Sirt6 may provide a new therapeutic approach to periodontitis.

**Significance:** Clinically, we suggest Sirt6 agonist is a potential therapeutic strategy for periodontitis.

### **Audience Take Away:**

- Considering Sirt6 as a potential therapeutic target for periodontitis, researchers further investigate developing a therapeutic strategy of targeting Sirt6
- Maintaining sufficient bone mass and anti-inflammatory state is important for oral health in general

#### **Biography**

Myung Jin Lee is studying chemical biology, and she is a predental student at Case Western Reserve University. She was a researcher at Jeonbuk National University Medical School, participated in Sirt6 and periodontal research. After her first one year of research, she joined Dr. Jin's lab at Case Western Reserve University School of Dental Medicine as an undergraduate researcher. Her current research focus is HIV and head and neck cancer. She will participate in CanSUR (Cancer-focused Summer Undergraduate Research) this summer, sponsored by Case Comprehensive Cancer Center.



**Anu Jose**Annoor Dental College and Hospital, India

# Comparative evaluation of post treatment CT scan and clinical findings in open reduction and closed reduction of condylar fractures

**Background:** Mandible is largest and strongest of facial bones. Mandibular fracture is the second most common fracture of facial bone, next to nasal bone. 25% to 40 % of mandibular fractures involve the condyle. In the literature, there exists no consensus "gold standard" treatment for mandibular condylar fractures, and there is a continuing debate on whether condylar fractures should undergo closed or open reduction. In recent years, open treatment has become more common, probably because of introduction of plate and screw fixation devices that allow stabilization of the fractures. However, the closed reduction method was most commonly employed due to difficulty in access to the condylar region because of anatomic complexity, reduced risks of general anesthesia and comparable functional outcomes obtained with closed reduction.

**Objectives:** The purpose of this study was to compare the clinical and radiological outcomes of open reduction and closed reduction treatment of condylar fractures.

**Method:** Twenty patients who had undergone open reduction and closed reduction treatment for condylar fractures in the Department of Oral and maxillofacial surgery, PMNM Dental college, Bagalkot will be included in the study. Preoperative patient details, history, photographs, CT scan etc will be collected. Patients will be recalled and follow up will be done for a minimum of 3 months. Clinically maximal interincisal opening, laterotrusive and protrusive movements, pain on mouth opening, malocclusion, chin deviation on mouth opening, facial nerve palsy, hematoma and infected implant will be evaluated. The postoperative pain and overall satisfaction of treatment were further assessed by patient himself with visual analogue scale. Also, a postoperative CT is done to evaluate the anatomical position of fragment, to assess the shortening of vertical height of ramus, angulation and distance of fractured condylar head from glenoid fossa. Bite force is also evaluated in both groups.

**Results:** On clinical evaluation with respect to maximum interincisal opening, lateral movements, protrusion, bite force, both groups had comparable results. However, none of the patients in open reduction group had deviation of mandible from midline on mouth opening. Also, better anatomical repositioning is obtained in open reduction group on evaluation of angulation, vertical ramal height and the distance of fractured condylar head from glenoid fossa.

**Conclusion:** The results of this study suggest that the open reduction method is a better alternative to closed reduction in treatment of mandibular condylar fractures.

### **Audience Take Away:**

- Method of management of condylar fractures are still controversial
- This study helps to evaluate the benefits and to rule out a superior technique in rehabilitating condylar fracture patients
- Both open and closed reduction methods and their outcomes are discussed in detail

### **Biography**

Dr. Anu Jose is a dedicated Oral and Maxillofacial Surgeon who is currently pursuing her career as Assistant Professor at Annoor Dental Collee, Muvattupuzha. She graduated from PMNM Dental College with her masters in the year 2021. She had about 11 Publications of which three are research articles published in the national journals. She is also a consultant at Nirmala Hospital, Muvattupuzha and Facets Dental Clinic, Muvattupuzha.





25-27\



**Laurindo Moacir Sassi**Cancer Center Erasto Gaertner and Hospital Universitario Evangelico Mackenzie, Brazil

# Structural properties of the ABA signaling network defines the evolutionary success of the system

The growing success of anti-resorptive (bone resorption inhibitors) and anti-angiogenic drugs in the treatment ■ of cancer has significantly increased the risks of medication-related jaw osteonecrosis (MRONJ). Osteoporosis is also at risk for the use of medication, especially when surgical dental procedures such as tooth extraction or dental implants are performed. Dentists' prior knowledge of the adverse effects of bisphosphonate therapy (BFs) in patients in need of dental rehabilitation is extremely important in the management of these patients, since BFs can impair the longevity of the dental implant, as well as induce osteonecrosis of the jaws. The histopathological characteristics of osteoradioncecrosis, osteomyelitis and osteonecrosis of the jaws related to drugs showed several histological similarities which were found among the diseases, mainly with regard to the presence of bone necrosis, inflammation and microorganisms. Many treatments for MRONJ are sought and have been reported, such as antibiotics, surgical procedures and photodynamic therapy, although no definitive protocol is accepted by all institutions. The PENTO protocol (pentoxifylline and tocopherol) has been reported in many studies for osteoradionecrosis, showing a significant improvement in bone recovery capacity. The objective is to report the experience of the creation of an outpatient clinic for the treatment and prevention of osteonecrosis of the jaws at a public reference Erasto Gaertner Cancer Center in the south of Brazil. We report 11 cases of patients undergoing cancer treatment who had MRONJ and were treated with the PENTO protocol. Of these patients, 73% (n = 8) improved their clinical condition and 45% (n = 5) achieved complete remission. The average time of medication use was 4.72 months. It has been shown that the PENTO protocol is more accessible and tolerable than other options for the treatment of osteonecrosis, with high rates of clinical response. Final considerations: The PENTO protocol is a good option as a conservative treatment for MRONJ.

### **Biography**

He holds a degree in DENTISTRY from the Federal University of Paraná (1988), a Master's degree in Medicine (Head and Neck Surgery) from Hospital Heliópolis - Care Management Unit 1 (1995) and a PhD in Health Sciences from the Federal University of São Paulo (2009). He is currently a former postgraduate professor at the Federal University of Paraná, a member of the clinical staff-serv of cir tbmf at the Hospital Universitário Evangélico de Curitiba and head of service-Liga Paranaense de Combate ao Câncer. He has experience in Dentistry, with emphasis on Oral and Maxillofacial Surgery, working mainly on the following subjects: case report, salivary glands, mandible., Oral cancer and radiotherapy.



**Kanika Gupta Verma**Teerthankar Mahaveer University, India

# Aesthetics in pediatric dentistry

Tarious conditions like dental caries, hypoplasia, discolorations, fractured tooth etc leads to impairment of aesthetics, affecting the overall personality of children and adolescents. Now-a-days aesthetics is the main concern among youngsters and their parents. This led to the development of better, and superior dental materials that mimic the natural tooth efficiently. Besides the improvement of dental materials, a rapid advancement has been observed in different treatment modalities for designing the smile in a better way. More esthetic solutions are available for pediatric population, including aesthetic space maintainers, biological restorations, esthetic post and core, aesthetic restorations etc. Introduction of latest methodologies for restoring the decayed teeth has come as a boon to the dentistry. With the globalization, dentistry has entered into a new era of consciousness where children and adolescents wish to look even better. They wish to attain better aesthetics, a beautiful and confident smile. The best solution to all these complex problems can be efficiently managed by a skilled Pedodontist. The modern-day demand of youngsters and their parents is a charming smile, being offered by superior esthetic solutions. Restorative materials like composites, ormocers, compomers, Glass ionomer cements etc are offering a way beyond desirable esthetic results. These restorative materials are being used to manage conditions like Early childhood caries, nursing bottle caries, rampant caries, fractured tooth etc. Innovations in space maintainers like aesthetic space maintainers, glass fibre reienforced maintainers, simple wire space maintainers etc have replaced the traditional space maintainers. Aesthetic posts like glass fibre, carbon posts, glass posts etc have replaced the traditional non-aesthetic post systems. Biological restorations using natural tooth are upcoming aesthetic solutions for restoring tooth to its original form and function.

### **Audience Take Away:**

- Aesthetics in Pediatric dentistry is coming up as a boon in the field. With the increasing awareness among parents, children and adolescents aesthetics is the future of dental professionals
- Aesthetics and smile designing in children is still a way to go. There are many advancements that are coming up
  in this field that can benefit one of the most important age groups of our life. These advancements are required to
  be applied in practice, so that dental professionals can provide maximum benefit to pediatric population

### **Biography**

Dr. Kanika Gupta Verma received her Bachelor's in Dentistry from Govt Dental College & Hospital, Amritsar, Punjab in 2005; and Masters in Paediatric & Preventive Dentistry from Guru Nanak Dev Dental College, Sunam, Punjab in 2009. She is fellow in Scientific writing and Clinical trials. She has been working as an active academician since 13 years, with a keen interest in aesthetic and surgical management of children and adolescents. She is teaching both graduates and post graduates in the field of child oral health care. She is presently working as Professor in Department of Paediatric & Preventive Dentistry, Teerthankar Mahaveer Dental College and Research Centre, Moradabad. She is also a life member of Indian Society of Paediatric & Preventive Dentistry; and Indian Dental Association. She has around 65 national and international publications on her name. She is author and contributor to various books. She has delivered various lectures in National and International Conferences. She is reviewer and editorial board member of various national and international journals.





AND ORAL HEALTH

25-27\



**David G Gillam**Queen Mary University of London, UK

### Development of innovative dental products: From concept to consumer

Prescribing denture adhesives has been viewed by many prosthodontists as a means of the development of products for the dental market is a complex process requiring numerous stages of development from the laboratory to the clinical or consumer environment. There is no guarantee of success since very few products enter into the consumer market. The aim of this presentation is to update participants on the novel products that have been developed in a university environment and successfully launched into both the consumer and clinical environment. One of these products is a bioactive glass (BioMinF®) which has been optimized specifically for use as an additive for toothpaste in the treatment of dentine hypersensitivity and remineralization of the early caries lesion. Following laboratory evaluation and subsequent clinical trials the product is now classed as medical device (Class IIb) and distributed in numerous countries. Other products have been developed include Biomin C (Chloro Calcium Phosphosilicate: a non-fluoride toothpaste), an adhesive orthodontic varnish and a fluoride toothpaste for professional use (Dr Collins BioMin® Restore Plus, USA). The advantage of the bioactive glass product is that it enables the fluoride within the glass to dissolve into the saliva over time (up to twelve hours) and provides a fluorapatite layer on the tooth surface that is resistant to acid attack.

### **Audience Take Away:**

- To provide participants with an update on the novel dental materials that are being developed to treat the clinical conditions such dentine hypersensitivity and remineralizing products
- To provide participants an awareness of the processes required before dental products can reach the commercial market
- To outline the properties of an ideal dental product and discuss whether this can be achieved realistically for consumer
  use
- To introduce participants to novel bioactive glass-based products for treating specific dental conditions

### **Biography**

He graduated from Edinburgh Dental School in 1977 and have been involved in Dentistry over the last 40 years. He had worked in both clinical practice and in University Dental Hospitals as well as in Industry (1998-2001) initially with SmithKline Beecham and subsequently with Block Drug Company. From 2003 to 2008 he worked with a Clinical Research Organization and currently he is a Clinical Reader (Associate Professor) in Translational Research in Relation to Dentistry at the Bart's and the London School of Medicine and Dentistry QMUL in London (2009-). My main research interest is in the Management of Dentine Hypersensitivity, and He had published over 100 papers on numerous dental topics as well as contributing to several books as Editor and several book chapters as a contributor.



**Joul Kassis**Damascus University, Australia

# Effectiveness of Chinese acupuncture on pain relief following surgical removal of impacted third molars: A self-controlled clinical trial

The extraction of the third molar commonly produces severe pain, swelling, and functional disability. The most common treatment for postoperative pain is non-steroidal anti-inflammatory drugs. Unfortunately, these medications are associated with systematic side effects. Acupuncture as a physical therapy may provide effective pain relief without these side effects. This research is a self-controlled clinical trial designed to evaluate the effectiveness of Chinese acupuncture treatment in pain relief following the surgical extraction of impacted third molars. Acupuncture treatment was applied to 50 patients for 20 min immediately following surgical extraction of all impacted third molars on the left side of all patients. Pain assessment was performed using a standardized questionnaire that contained information about the name and age of the patient, numbering and classification of the impacted tooth, timing and duration of the surgical operation, and a table with the visual analogue scale (VAS) for measuring pain intensity. The pain intensity was measured several times. The measurement was started by the author himself who did the first two measurements. The patient was then asked to continue evaluating the pain intensity for the following periods: after 6 and 12 h and on the second, third, fourth, fifth, sixth, and seventh days. As a result, Pain intensity values were less for the acupuncture group for all studied periods, therefore, Acupuncture treatment following surgical extraction of impacted third molars could reduce postoperative pain values.

### **Audience Take Away:**

- The possibility of using acupuncture as a supportive pain management technique with patients where the use of NSAIDs is contraindicated
- Help practioners in reducing the use of NSAID's, as a result, improve treatment outcome and patient's satisfaction

### **Biography**

Joul Kassis studied Dentistry at faculty of Dentistry, Damascus University, Syria and graduated as DDS in 2010. He then completed his Master degree in Oral and Maxillofacial surgery at the same institution in 2015. During his residency he conducted a number of studies and researches related to pain management. He has published three articles and currently working on two. He has participated in many international events and conferences and an editorial board member in number of international journals. He is a registered Oral and Maxillofacial Surgeon in Dubai, the United Arab Emirates and a member of the Australian Dental Association, Australia.



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# Surgical excision of polymorphous adenocarcinoma in the left maxilla with mucocutaneous flap reconstruction

**Introduction:** Low-grade polymorphous adenocarcinoma is a malignant neoplasm of salivary glands with uncommon occurrence in the head and neck region. The lesions occur more frequently among elderly females between the sixth and eighth decades of life, with a higher prevalence for the hard palate and soft palate. The most indicated surgical treatment is extensive surgical excision, including resection of the underlying bone. The purpose of this study is to describe a case report of a surgical excision of polymorphous adenocarcinoma in the maxilla with mucous flap reconstruction.

Case Report: A 63-year-old male patient complaining of a tumor-like lesion in his left maxilla, which gradually increased in volume. At the intra-oral clinical examination showed the presence of upper and lower total dentures, an increase in volume in the left maxillary tuberosity region and a lesion of nodular features with fibrous and smooth consistency, fixed, sessile, oval shape, defined edges, and painless symptomatology. Radiographic imaging by panoramic radiography revealed a lesion with mixed radiographic density projected in the left maxillary tuberosity region and the in computed tomography scans were obtained and used for 3D image reconstruction. An axial tomographic view indicated the presence of a heterogeneous lesion with osteolysis: alteration in the cortical/trabecular bone and reabsorption of the left palatine bone, with regular contour and defined edges. Given the extent and complexity of the lesion, the surgical treatment in this case consisted of hemimaxillectomy and the surgery proceeded with mucosal flap reconstruction. The postoperative period followed was the service protocol, with no complications and no sign of recurrence. The pathological specimen was sent to the Anatomopathological Service, where the free margins and diagnosis were confirmed.

**Conclusion & Significance:** The low-grade polymorphic adenocarcinoma is a rare malignant neoplasm that affects the salivary glands whose potential for malignancy, recurrence and metastasis are relatively low.

### **Audience Take Away:**

- Definition of Adenocarcinoma
- Clinical and histopathological characteristics of Oral Adenocarcinoma
- Forms of treatment
- Description of a surgical clinical case
- The dental surgeon must know how to identify neoplasms and their forms of treatment, avoiding worse stages of pathologies

#### **Biography**

Dental Surgeon and Master's student in integrated clinics at the Federal University of Pernambuco, Brazil; Currently, she is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the projects care for patients with oral diseases and facial traumas, the project prevention and treatment of cancer in face and mouth regions in Venturosa-Pernambuco-Brazil and the project intitled Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders. In 2019 was invited by the Peruvian Army to give a conference at the 30th National Congress of Military Police Dentistry "Ejército del Perú". In 2020 and 2021, she won several awards for presentations of scientific works and was International Keynote speaker in the United States, France and England.



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### Surgical treatment for maxillary sinusitis using the caldwell - LUC technique

**Introduction:** The maxillary sinus can be affected by several recurrent sinus pathological processes, including sinusitis of odontogenic origin. This pathology is characterized by hyperplasia or inflammation in the lining mucosa of the sinus associated with a necrotic dental element. Since, when associated with painful symptoms and/or significant expansion, it should be surgically removed. Thus, the Caldwell-Luc technique has been suggested as a means of access to the maxillary sinus, because it allows its inspection and the treatment of diseases that affect it. This technique has been used for the treatment of irreversible chronic maxillary sinusitis, removal of dental roots and foreign bodies. Objective: The present study aims to report a clinical case of a patient with maxillary sinusitis of odontogenic origin, accompanied by a somewhat painful symptomatology where she had as surgical treatment of choice a maxillary sinusectomy using the Caldwell-Luc technique.

Case report: Female patient, 57 years old sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, complaining about the absence of dental elements, in which he reported that he lost at a young age due to infectious and inflammatory processes. He had constant headaches and the presence of purulent secretion leaving through the nasal region and constant pain in the middle third of the face. Panoramic radiography imaging showed the absence of multiple dental elements with two teeth included: one in the anterior region of the right maxilla and the other in the posterior region of the left mandible, with radiolucent images involving their crowns, with the diagnostic hypotheses of dentigerous cysts. There was a slightly radiopaque, homogeneous, dome-shaped alteration located on the floor of the left maxillary sinus. The patient's treatment was based on left maxillary sinusectomy of odontogenic origin and excisions of the right upper canine and left lower third molar, both included. The surgery was performed under general anesthesia for enucleation of the cyst in the maxillary sinus by the Caldwell-Luc surgical technique. The sample was referred for histopathological analysis at the Oral Pathology laboratory of the Hospital das Clínicas of the Federal University of Pernambuco, which confirmed the initial diagnosis. The patient responded well to the postoperative period with remission of painful symptoms and good healing.

**Conclusion:** It is concluded, therefore, that maxillary sinusitis of odontogenic origin will have its clinical treatment of choice: the cystic enucleation of the entire lesion through the Caldwell-Luc surgical technique. This diagnosis will be confirmed by combining the clinical examination for a detailed anamnesis, complementary tests and imaging tests.

#### **Audience Take Away:**

- Learn about Treatment for Maxillary Sinusitis
- Learn about a clinical case of a patient with maxillary sinusitis of odontogenic origin, accompanied by a somewhat painful symptomatology
- Learn about an ancient technique that is very effective

### **Biography**

Dental School academic in UNIFACEX, BR; Currently, an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco. As a member of the project to care of patients with oral diseases and facial traumas, project entitled prevention and treatment of cancer in face and mouth areas in Venturosa-Pernambuco-Brazil, and Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



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# Clinical and radiographic features and treatment of dentigerous cyst associated with unerupted molars: Case report

The dentigerous cyst is the most common developmental odontogenic cysts involved in this classification. It believes that originates at the separation of the fluid that is around the crown of an impacted tooth. This cyst is characterized for envolving the crown of na impacted tooth and connects to the tooth in the cementoenamel junction. This cyst most often affects the mandibulars third molars. The most affected age group is from ten to thirty years old, with a slight preference for the male sex and higher prevalence of caucasians. The dentigerous cysts are generally small size and asymptomatic, but may in some cases reach a considerable size. Radiographically, there is an unilocular radiolucent image associated with the crown of an impacted tooth, with well-defined and often sclerotic margins. This work is a case report of dentigerous cyst associated with molars enclosed in a female patient of 20 years old. The patient searched treatment to the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco- Brazil, after radiographic examination for orthodontic treatment. She did not complain of pain or bleeding, only a small increase in volume on the left side of the face. At radiographic evaluation, it was noticed the presence of radiolucence area suggestive of cyst at left maxilar second and third molar and right mandibular third molar, all enclosed. The surgical treatment performed was cystic enucleation. The diagnosis of dentigerous cyst was confirmed after histopathological examination. In this report we will discuss the clinical, radiographical, pathological and therapeutical case.

### **Audience Take Away:**

- Dental surgeons will be able to apply the knowledge presented in the paper in clinical practice, recognizing the characteristics of this cyst, which are extremely important for a correct differential diagnosis and subsequent treatment
- It will help in the definitive treatment when the dental surgeons come across cases of dentigerous cysts, besides promoting post-operative follow-up, which is very important to verify the absence of signs of recurrence, by requesting periodic imaging exams
- The research can be referenced in other works with the objective of expanding the knowledge about the case addressed.
- This is a case report of a cystic lesion common among cysts of developmental origin and the second most common
  among odontogenic cysts, this presentation will provide evidence about the lesion, in addition to presenting the
  treatment for the respective case, thus aiding the diagnosis and treatment of dentigerous cysts

#### **Biography**

Student of the 7th period of Dentistry at the University Federal de Pernambuco - UFPE. Intern at the Oral Maxillofacial Surgery and Traumatology of the Hospital das Clinicas, Federal University of Pernambuco - UFPE. She is currently a volunteer in the extension entitled: Care of patients with oral diseases and facial trauma and the project entitled Prevention and treatment of cancer in the face and mouth regions in the city of Venturosa/PE. She also participates as a volunteer in the project for the use of Traditional Chinese Medicine in the treatment of patients with temporomandibular joint dysfunctions.



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# Excisions of 4 unerupted canines in the mentonian region of the mandible: "kisses teeth"

The impacted tooth is a dental organ that, even fully developed, did not erupt at the normal time, being inside of the bone tissue and totally surrounded by bone tissue or by bone and mucous tissue.

**Objective:** The aim of this paper is to present a clinical case, which deals with an unerupted tooth in the metonian region and also the clinical and surgical management of this case.

**Case report:** Female melanodermic patient, 14 years old attended the Oral and Maxillofacial Surgery and Traumatology Service of the Federal University of Pernambuco, reporting mentonian discomfort, thus an imaging-based screening was requested. These symptoms were induced by two impacted canine teeth associated with other two supernumerary teeth that, radiographically resembled canines, surrounded by a radiolucent image similar to a dentigerous cyst in chin region, and also in a atypical position of "kisses teeth". Throughout the anamnesis the patient reported absence of bilateral lower canines as well as absence of traumatic factors to this region and deciduous elements premature loss. Firstly, incisions were performed in both right and left parassinphyseal regions of the mandible, followed by displacements of mucoperiosteal flaps, osteotomies and ostectomies to approach the lesion. Then, aided by Seldin elevators, the uppermost elements on the right side were removed by means of lever points, and afterwards the left side was carefully managed in order not to injure the adjacent elements roots. As a result, the lesion involving the unerupted teeth was carefully removed through curettage so as not to damage the lower alveolar nerve vascular bundle, and this lesion was sent to perform the histopathological screening at the Oral Histopathology Laboratory of the Federal University of Pernambuco. The surgical sequence continued with cavity cleaning and bone regularization, repositioning the flaps and sutures with separate points through 5.0 mononylon wire. Over the postoperative period, the patient evolved without philogistic signs and after 1 year another facial (panoramic) radiography was requested for post-surgical control. Radiographically, the bone tissue healing in the region was observed, preserving the root apices of the inferior elements. Clinically, the patient presented with preserved tissues and all dental elements demonstrated pulp vitality.

**Conclusion:** This case reported a situation where the lower canines were impacted, together with supernumerary dental elements involved by a single dentigerous cyst. Due to this rare clinical occurrence, canines impacted in the mentonian region are less discussed in literature when compared to impacted upper canines given their lower incidence rates. This fact becomes important, both for surgical, pathological and radiological professionals, being the accomplishment of the correct diagnosis extremely important.

### **Audience Take Away:**

- Definition of dentigerous cyst
- Forms of treatment
- jaw anatomy
- Description of a surgical clinical case

### **Biography**

Evellyn Almeida study dental medicine at the Federal University of Pernambuco - UFPE, Brazil. Currently an intern at the Oral Maxillofacial Surgery and Traumatology Service at UFPE. Extension volunteer whose project is care for patients with oral diseases and trauma at the Oral Maxillofacial Traumatology and Objective Outpatient Clinic of the Federal University - UFPE and the Project treatment of cancer in face and mouth regions in the city of Venturosa/PE. Volunteer in the project to extend the use of Traditional Chinese Medicine in the treatment of patients with temporomandibular joint disorders.



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### Face injury caused by dog bite

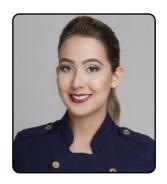
The bites that are of most interest to the dental surgeon is caused by domestic animals, especially dogs and cats. These injuries are of great importance, as they have a high rate of contamination and can cause some systemic diseases caused by bacteria, viruses, protozoa and parasites. Purpose: To clarify and explain possible differences regarding the treatment of these injuries. Case report: Male patient, 3 years old, victim of physical aggression by a dog of his own family, was taken to the emergency room of the reference Hospital in Recife, state of Pernambuco, Brazil, under regular general condition, walking, conscious, oriented, afebrile and eupneic. On clinical examination, an extensive scalp wound was found, and a laceration as well as a contusion in the right preauricular area with profuse hemorrhage. Under general anaesthesia, the treatment was based on strict rinse with 0.9% saline and polyvinylpyrrolidone, the team performed the removal of foreign bodies, debridement of devitalized tissues and hemostasia of the blood vessels. Family members were instructed to observe the offending animal for 10 days. Tetanus prophylaxis was not indicated because the child was vaccinated. There were no postoperative complications and the wound healing achieved good results. Conclusion: Bite wounds are treated a little differently than the other wounds, since they have saliva rich in microbiota, being highly susceptible to infection. As for the need for prophylaxis of human rabies, the patient should be referred to a specialized service, and the offending animal should be kept isolated from other individuals and animals.

#### **Audience Take Away:**

- Learn about the procedures taken during the operation
- Understand facial anatomy
- Have a quick look in some trauma statistics
- Learn about treatment and prognosis based on brazilian ministry of health on the prophylaxis treatment for rabies

#### **Biography**

Dr. Frederico Melo Jr. is a Doctor of Dental Surgery, graduated from the Maurício de Nassau University, Natal Campus. Volunteer at the Oral Maxillofacial Surgery and Traumatology Outpatient Clinic of Hospital das Clínicas, Federal University of Pernambuco - UFPE and in the extension project whose objective is to care for patients with oral pathologies and facial trauma at the Oral Maxillofacial Surgery and Traumatology Outpatient Clinic of Federal University of Pernambuco - UFPE. Project participant entitled: Cancer prevention and treatment in face and mouth regions in the city of venturosa/PE.



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# Traumatic neuroma in impacted third molar and the use of computed tomography for evaluation of lower alveolar nerve: Analysis of the literature and case report

**Introduction:** It is known that traumatic neuroma is caused due to the proliferation of a nerve, consequent to a rupture of its ligaments after surgery and/or injury to the head and neck region. It is diagnosed, above all, in middle age and shows a predilection for the female sex. Clinically it presents as a firm nodule so painful that it is usually seen in the area of the mentonian foramen, tongue and lower lip. The extraction of third molars is frequent, especially when it comes to the lack of space in them. The inferior scans may be related to the lower alveolar nerve, contributing to the increase of nerve injury during surgery. However, the use of complementary imaging tests is essential as prevention. Objective: The objective of this study is to report the clinical case of a patient who developed a traumatic neuroma in the right mandibular region after exodontia of the third molar. Case Report: Female patient, 26 years old, sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, reporting loss of sensitivity of the right lower lip. During anamnesis the patient reported that she had undergone an exercisis surgery of impacted teeth 3 years ago. On imaging (panoramic) examination, it presented rupture of the right lower alveolar nerve associated with a radiolucent mass. The patient underwent an incisional biopsy confirming the diagnosis of traumatic neuroma. Therefore, it is noted the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery. Among the most used complementary tests are panoramic radiographs and tomographies, with their specific indications for different situations. The panoramic is very useful in identifying the anatomical variations presented by the mandibular canal. On the other hand, tomography is more efficient because it provides the image with a lower degree of distortion and three-dimensional, in addition, it has a lower radiation dose. Conclusion: Computed tomography evaluation is important to highlight the nerves and thereby not injure them during extraction. It has been the most effective measure found today and consists of the correct diagnosis, anatomical and technical knowledge of the professional. The patient underwent an incisional biopsy confirming the diagnosis of traumatic neuroma. Therefore, it is noted the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery.

#### **Audience Take Away:**

- Learn about traumatic neuroma consequent to a rupture of its ligaments after surgery
- The objective is to report the clinical case of a patient who developed a traumatic neuroma in the right mandibular region after exodontia of the third molar
- Learn about the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery

#### **Biography**

Dental School academic in Maurício de Nassau University, BR; Currently, an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco. As a member of the project to care of patients with oral diseases and facial traumas, project entitled prevention and treatment of cancer in face and mouth areas in Venturosa-Pernambuco-Brazil, and Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



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# Resection of submandibular angiolipoma associated with a patient with Von Recklinghausen's disease

ngiolipoma is a benign tumor clinically similar to a lipoma, but its degree of vascularization is much higher when  $oldsymbol{A}$  examined microscopically. It is formed by fatty acids and vascular elements. It mainly occurs in the trunk and extremities and is uncommon in the head and neck area. Neurofibromatosis is a relatively common hereditary condition, having no preference for gender or race. The most common form is type I (NF1), also known as Von Recklinghausen Disease. It is characterized by a mutation on chromosome 17g11.2. Its manifestations are café au lait spots, ephelides and neurofibromas, Lisch nodules and bone dysplasias. The present work aims to report a clinical case of a patient with neurofibromatosis type I, who presented an angiolipoma. Patient, male, 36 years old, melanoderma, sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, complaining of an increase in volume in the right submandibular region. During the anamnesis, it was observed that the patient had Von Recklinghausen Disease. Clinically, the lesion was well delimited, soft to palpation, mobile and painless. The surgical procedure was chosen under local anesthesia. Initially, a vertical incision was performed, divulsion of the myocutaneous tissues, resection of the lesion and suture with nylon thread, in separate stitches. The surgical specimen was sent to the Pathological Anatomy Unit of the Hospital das Clínicas at the Federal University of Pernambuco, where the diagnosis of angiolipoma was confirmed. The treatment was presented favorably in relation to the case. In conclusion, it is extremely important that the Dental Surgeon is aware of the characteristic signs and symptoms of NF1 to establish a correct diagnosis, both in patients who already have the disease and in those at risk of developing it.

#### **Audience Take Away:**

- Definition of Angiolipoma
- Description of a surgical clinical case
- The dental surgeon must know how to identify characteristic signs and symptoms of von Recklinghausen's disease to establish a correct diagnosis

#### **Biography**

Dental School student in Federal University of Pernambuco, Brazil, currently is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the project to care for patients with oral diseases and facial traumas and the project entitled prevention and treatment of cancer in face and mouth regions in Venturosa-Pernambuco-Brazil. Also, member of the project Use of the Traditional Chinese Medicine in the treatment of patients with temporomandibular disorder.



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## Fibrous hyperplasia caused by maxillary sinus decompression device

ibrous hyperplasia is a lesion characterized by the formation of epithelial tissue and fibrous connective tissue in  $m{\Gamma}$  response to chronic trauma or local irritation. It is often located in regions close to the alveolar ridge, cheek mucosa, tongue and lower lip, and may present atypical locations, such as the maxillary sinus. The aim of this study is to report the clinical case of a patient affected by fibrous hyperplasia in the left maxillary sinus, caused by a decompression device. Case report: The patient came to the Oral and Maxillofacial Surgery and Traumatology Outpatient Clinic of the Federal University of Pernambuco complaining of a foul-smelling secretion that came out of the nasal and oral cavities. During the anamnesis, he reported having performed decompression surgery at the affected site approximately seven years ago at another service and, after being discharged from the hospital, he did not return for reassessment. The intraoral clinical examination revealed a hyperplastic, normochromic lesion, involving a foreign body in the left maxillary sinus region. An incisional biopsy of the lesion was performed, resulting in the diagnosis of fibrous hyperplasia. Surgical treatment was recommended, using the Caldwell-Luc technique to access the maxillary sinus region. Surgery proceeded with removal of the foreign body and resection of the lesion. The patient was followed up for 7, 15, 30, 60, 90, 180 days and annually, without signs of recurrence. Conclusion & Significance: The Caldwell-Luc technique allows easy access to the maxillary sinus and its use is frequently described in the literature for the removal of foreign bodies, as well as for the treatment of pathological processes in the region. The patient is under follow-up, with no complaints or episodes of recurrence of the inflammatory process.

#### **Audience Take Away:**

- Definition and characteristics of Fibrous Hyperplasia
- Learn the main clinical findings to diagnose the Fibrous Hyperplasia
- Forms of treatment
- Description of a surgical clinical case

#### **Biography**

Thayna Lacerda is undergraduate Dentistry student of Federal University of Pernambuco. She is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the projects care for patients with oral diseases and facial traumas, the project prevention and treatment of cancer in face and mouth regions in Venturosa – Pernambuco - Brazil and the project intitled Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



## Henrique Barros\*1 and Rafael Cisne<sup>2</sup>

<sup>1</sup>Tiradentes University Center - Unit, Brazil <sup>2</sup>Federal University of Fluminense, Brazil

# Use of fresh frozen cadavers for training and development of surgical techniques

Throughout history, the use of human cadavers for teaching purposes has proved to be a common practice around the lack 1 world. The training and development of surgical techniques are essential parts in the training of surgeons and require a learning curve, consolidated by the experience of their professional performance. For ethical and legal principles, these practices should not be carried out on human beings, making universities and training centers use animal models or simulators as an alternative. These studies have provided, throughout history, several advances in the areas of health, in addition to the understanding of its functioning and of life and death itself. Over the centuries, the cadaveric conservation process and dissection techniques have evolved, currently allowing the use of bodies soon after the donor's death or preserving them through cryogenic techniques, keeping the tissues with their natural characteristics, thus being the method as close to reality as possible. The aim of this study is to describe the advantages and disadvantages of using fresh frozen cadavers for training and development of surgical techniques. The study is based on the results of the experiences of students, teachers and professionals who underwent training in fresh frozen cadavers during courses held in the United States from 2014 to 2019. Participants took a pre-test addressing the topics that would be taught in the courses and after completion of the course, post-tests were performed in four periods: 1 day, 30 days, 180 days and 365 days after the end of the course. A total of 723 people responded to the tests, obtaining an average of 35.2% correct answers in the questionnaire in the pre-test and 81.3%, 78.5%, 73.7% and 68.1% respectively for the post-tests of 1. 30, 180 and 365 days. We could then observe that there were significant increases in the pre-test scores compared to the post-tests, demonstrating the effectiveness of the technique in the short and long term. We conclude that the use and application of techniques in fresh frozen cadaver proved to be an excellent training model, approaching as much as possible the reality of the living patient, where tissues are preserved, maintaining their color, texture and anatomical characteristics.

#### **Audience Take Away:**

- Know a study model for the development and training of surgical techniques as close as possible to reality
- Correlate morphological and topographic knowledge with clinical and surgical applications
- Improve cognitive and motor learning through interventions in fresh frozen cadavers, consolidating this knowledge in the long term

#### **Biography**

Dr. Henrique Barros graduated in Dentistry from ASCES in 1999, with specialization in Maxillofacial Surgery from PUC-RS, Implantology from ASCES and Hospital Dentistry care from CFO. Holds a Master's Degree in Dentistry from the Potiguar University. Professor of undergraduate and postgraduate courses since 2001. Fellow in Maxillofacial Surgery at the University of Barcelona and at the University of Tübingen. Coordinator of anatomy and surgery courses for fresh frozen cadavers in the US since 2014. Works at the emergency hospital in Arapiraca - AL, where coordinated the maxillofacial surgery service from 2012 to 2017. treasurer of the Brazilian Society of Anatomy since 2018, effective member of the International Society for Plastination and for Brazilian Society for Dental Research.



# Henrique Pereira Barros\*1, Filipe Carvalho Nobre1, Igor Gaudencio Lucio Silva1, Fernando Wagner da Silva Ramos2, Rafael Cisne de Paula3

<sup>1</sup>Tiradentes University Center - Unit, Brazil

<sup>2</sup>Morphology Department Centro Universitário CESMAC

<sup>3</sup>Federal University of Fluminense, Brazil

## Morphology and standardization of gingival needles - microscopic analysis

The success of performing local anesthetic techniques depends on several factors, including the anesthetic technique 📘 and the material used, such as the syringe, the anesthetic substance and the needles used. Traditionally, needles can be classified according to their length, which can be categorized into: Extra-long, long, short or extra short. In some countries, there is still no rigorous standardization for this classification and uniformity in the identification of sizes, leading to significant variations between different commercial brands. The aim of this study is to assess whether there is standardization of different commercial brands of gingival needles regarding their length, bevel shape, packaging identification and whether there are deformations in the needle bevel after use through microscopy. This descriptive, temporal, in vitro study used quantitative and qualitative criteria. The experimental analysis used six commercial brands of gingival needles, divided into seven groups, according to the brand and size of their needle. The samples were separated into groups: G1 - Injex® long, G2 - Injex® short, G3 - Dencojet® long, G4 - Septojec® long, G5 - Jets® short, G6 -Procare® long and G7 - Allprime® extra short. For this analysis, we used double verification, blinding the evaluators as to the brands and sizes indicated by the manufacturers. The measurement was performed using a digital pachymeter and the results grouped into tables, comparing whether there were significant differences between the commercial brands. After the measurement tests, the needles were taken under the microscope for morphological and structural evaluation of their bevel using needles without any use. Needles had single, double or triple bevels. After the initial microscopic analysis, 5 perpendicular perforations were performed in synthetic skin, simulating the use of the needle in multiple anesthesia, as it happens in clinical practice. The used needles were taken again for inspection under the microscope, observing whether there was bending or damage to the bevel. We conclude that all tested marks underwent morphological changes and deformations regardless of the shape of the bevel. We also verified that there is no uniformity in the sizes and identification of the tested needles, which could hinder the precision of the anesthetic technique and cause more pain or discomfort to the patient.

#### **Audience Take Away:**

- Understand the importance of standardizing the sizes and identification of gingival needles
- Microscopically observe the deformations suffered by the gingival needles after their use
- Correlate how these changes can hinder the professional during local anesthesia procedures

#### **Biography**

Dr. Henrique Barros graduated in Dentistry from ASCES in 1999, with specialization in Maxillofacial Surgery from PUC-RS, Implantology from ASCES and Hospital Dentistry Care from CFO. Holds a Master's Degree in Dentistry from the Potiguar University. Professor of undergraduate and postgraduate courses since 2001. Fellow in Maxillofacial Surgery at the University of Barcelona and at the University of Tübingen. Coordinator of anatomy and surgery courses for fresh frozen cadavers in the US since 2014. Works at the emergency hospital in Arapiraca – AL, where coordinated the maxillofacial surgery service from 2012 to 2017. treasurer of the Brazilian Society of Anatomy since 2018, effective member of the International Society for Plastination and for Brazilian Society for Dental Research.



**Anu Jose**Annoor Dental College & Hospital, India

## A new conservative algorithm for treatment of locally aggressive tumors

Ameloblastoma is a locally aggressive benign tumor affecting the jaw bones accounting for 1% of all oral tumors. However, owing to their high recurrence rate and locally aggressive behaviour, the most common method of treatment employed is resection followed by various modalities of reconstruction. Similarly Odontogenic keratocysts are benign cystic lesion affecting the jaw bones accounting for about 5-10% of all cyst and with high recurrence rate. In this study we evaluated 20 young patients with Odontogenic keratocyst and ameloblastoma. The modality of treatment was conservative by enucleation and iodoform packing. The pack was changed every 1 week for 3 months and follow up was done clinically and radiographically for 8 years. There was uneventful healing and bone regeneration with no evidence of recuurence. Most the cases, included in our study were children less than 12 years of age. For them resection is an aggressive procedure which results in severe deformity all throughout their life. Although there is need for long term follow up, we were able to conserve the patient's own bone during the growth period.

#### **Audience Take Away:**

- Here we describe a conservative method to treat benign locally aggressive tumors
- Anyone can perform this procedure with minimal number of complications
- Further studys with longer follow ups and large number of patients are needed to rule out rate of reccurrences

#### **Biography**

Dr. Anu Jose is a dedicated Oral and Maxillofacial Surgeon who is currently persuing her career as Assistant Professor at Annoor Dental Collee, Muvattupuzha. She graduated from PMNM Dental College with her masters in the year 2021. She had about 11 Publications of which three are research articles published in the national journals. She is also a consultant at Nirmala Hospital, Muvattupuzha and Facets Dental Clinic, Muvattupuzha.





25-27\



# Hardeep S. Ahdi\*, Sasirekha Pandravada, Thomas Adam Wichelmann and Eli D. Ehrenpreis

Internal Medicine PGY-2 at Advocate Lutheran General Hospital, USA

# Medication-induced osteonecrosis of the jaw: A review of cases from the food and drug administration adverse event reporting system (FAERS)

**Introduction:** Osteonecrosis of the jaw (ONJ) is a rare but serious adverse drug reaction (ADR) commonly associated with bisphosphonate and denosumab therapy. The FAERS database consists of voluntarily reported ADRs associated with post-market, FDA-approved medications as well as natural substances, vaccines and medical devices. Prior research by Zhang et al utilized the online, public FDA Adverse Event System Database to explore this serious side effect further. Their data identified and described several novel medications associated with ONJ. Our study aims to further explore MRONJ through more stringent FAERS database case screening and comparing prior 2010-2014 data to 2015-present data. This allows for a description of the reporting of medication induced ONJ over time and for the identification of newly described medications.

**Methods:** We searched the FAERS database for all reported cases of medication-induced ONJ from 2010 to present. Cases lacking patient age or gender were excluded from review. Only adults (age 18 and older) and reports from Healthcare Professions were included for analysis. Duplicate cases were removed. The top 20 medications were identified and described for 2010 to 2014 and 2015 to present. Statistical analysis was performed on the collective patient demographics of medication-induced ONJ reports as well as for the two timeline ranges.

**Results:** 19,668 cases of ONJ were reported to the FAERS database from 2010 to present. Of these, 8908 cases met inclusion criteria. 3,132 cases were reported from 2010 to 2014 and 5,776 cases from 2015 to present. Average age from 2010 to 2014 was 66.1 + -11.1 years, while average age from 2015 to present was 69.2 + -11.5. Gender distribution during the 2010–2014-time frame included 2026 females (64.7%) and 1106 males (35.3%). Gender distribution during the 2015–2021-time frame included 64.3% female (3712/5776) and 35.7% male (2064/5776). The top 20 medications from 2010-2014 and from 2015-present are shown in Table 1.

**Discussion:** Stricter inclusion criteria and removal of duplicates allowed for improved reliability despite fewer identified cases of medication-induced ONJ than prior research. Review of the 2010-2014 data set identified several medications and drug classes associated with ONJ that were not previously described (see Table 1). Novel drugs and classes described between 2015 to present identified Pomalidomide, Radium 223, nivolumab, and Cabozantinib. Denosumab was found to be the most frequently reported medication associated with ONJ within the FAERS database. While unable to imply incidence rates from our data due to the nature of the FAERS database, our findings provide further description of the various medications associated with ONJ and elucidate patient demographics associated with the ADR. Additionally, our study identifies cases of medication-induced ONJ with several newly described drugs and drug classes that have not been previously described in literature.

This table depicts the number of cases of MRONJ reported to the FAERS database for each of the top twenty medications from 2010 to 2014 and from 2015 to the present.

Table 1

2010 to 2014			2015 to 2021		
Medication:	# of MRON J Cases	Drug Class/ Indication	Medication:	# of MRON J Cases	Drug Class/Indicatio n
1. Zoledronic Acid	1903	Bisphosphonate; Osteoporosis	1. Denosumab	3148	RANKL i; Osteoporosis
2. Alendronate	576	Bisphosphonate; Osteoporosis	2. Zoledronic Acid	2027	Bisphosphonate; Osteoporosis
3. Denosumab	506	RANKL i; Osteoporosis	3. Alendronate	447	Bisphosphonate; Osteoporosis
4. Pamidronate	301	Bisphosphonate; Osteoporosis	4. Ibandronate	200	Bisphosphonate; Osteoporosis
5. Ibandronate	112	1 1 1	5. Lenalidomide	150	Immunomodulator with multiple MOA; Anti- neoplastic
6. Lenalidomide	82	Immunomodulator with multiple MOA; Anti- neoplastic	6. Pamidronate	115	Bisphosphonate; Osteoporosis
7. Risedronate	81	Bisphosphonate; Osteoporosis	7. Bevacizumab	114	Monoclonal anti- VEGF; Anti- neoplastic
8. Sunitinib	56	Tyrosine kinase inhibitor; Anti- neoplastic	8. Prednisolone	103	Variety of different indications; many different MOA
9. Bevacizumab	50	Monoclonal anti- VEGF; Anti- neoplastic	9. Risedronate	101	Bisphosphonate; Osteoporosis
10. Prednisolone	42	Variety of different indications; many different MOA	10. Dexamethason e	99	Variety of different indications; many different MOA
11. Dexamethason e	35	Variety of different indications; many different MOA	11. Everolimus	90	Immunomodulator; Anti-neoplastic
12. Docetaxel	24	MT depolymerization; Anti-neoplastic	12. Sunitinib	78	Tyrosine kinase inhibitor; Anti- neoplastic

13. Letrozole	15	Aromatase inhibitor with hormonal effects; Anti-neoplastic	13. Palbociclib	74	CDK inhibitor via hormonal effects; Anti- neoplastic
14. Methotrexate	15	Cytotoxic agent; Anti- neoplastic	14. Docetaxel	54	MT depolymerization; Anti- neoplastic
15. Everolimus	12	Immunomodulator ; Anti-neoplastic	15. Methotrexate	51	Cytotoxic agent; Anti- neoplastic
16. Paclitaxel	9	MT depolymerization; Anti-neoplastic	16. Prednisone	47	Variety of different indications; many different MOA
17. Imatinib	8	Tyrosine kinase inhibitor; Anti- neoplastic	17. Pomalidomide	29	Immunomodulator; Anti-neoplastic
18. Sorafenib	8	Tyrosine kinase inhibitor; Anti- neoplastic	18. Radium 223	25	Radiotherapy; Anti- neoplastic
19. Teriparatide	7	Recombinant PTH via hormonal effects; Osteoporosis	19. Nivolumab	23	Immunomodulator; Anti-neoplastic
20. Temsirolimus	6	Immunomodulator ; Anti-neoplastic	20. Cabozantinib	22	Tyrosine kinase inhibitor; Anti- neoplastic

#### **Audience Take Away:**

- The importance of monitoring oral health status for patients who have either been exposed at some point or actively receiving the above-mentioned medications
- The ability to understand certain drug trends that have become more prominent as research continues to investigate drugs with their side effect profiles

#### **Biography**

Dr. Hardeep Singh Ahdi studied Biological Sciences B.S. at the University of California, Santa Barbara and graduated in 2014. He then took two years of working as an Organic Chemistry tutor and prepared for medical school. He was ultimately accepted at Lake Erie College of Osteopathic Medicine and graduated in 2020. Following medical school, he was accepted into an Internal Medicine Residency Program at Advocate Lutheran General Hospital, currently in his second year with hopes obtaining a gastroenterology fellowship.



**Maya Fedhila**University of Monastir, Tunisia

## Unicystic ameloblastoma mimicking periodontal lateral cyst: A rare case report

Intraosseous unicystic ameloblastoma (UA) is rare subtype of a true neoplasm of odontogenic epithelial origin: ameloblastoma. The minimum criteria to diagnose an UA is the presence of a single cystic sac lines by variable epithelium: ranging from typical ameloblastic to metaplastic epithelium (consisting of no keratinizing squamous cells layer). UA present three histological subtypes according to the growing of ameloblastoma cells:

- luminal showing a flat ameloblastic cyst lining.
- Intraluminal characterized by a tumor growth into the cyst lumen.
- Mural exhibiting infiltrating growth into the wall of the cyst and even beyond into the surrounding bone.

The recurrence risk of the mural subtype is the highest, followed by the luminal and intraluminal UA. However, UA remains a rare lesion; representing 15% of ameloblastoma, itself representing 9% to 10% of odontogenic tumors.

Despite its rareness, dealing with UA is problematic. It is usually mistaken with an odontogenic cyst, and biopsy is rarely relevant because multiple grow patterns can exist inside one lesion. The biggest challenge remains the treatment choice: whether conservative or radical, it is usually controversial, since it depends on pathology results which may reveal only one of the multiple growth patterns of a lesion and mural treatment must be well balanced. Commonly, invasive approach is the chosen therapy for the highest recurrence rate subtype and conservative treatment is recommended for the less recurrent ones. However, opting for an invasive procedure must be well-thought-out and requires a balanced judgment, so its success doesn't lead to an overtreatment. Therefore, when we are facing a lesion that strongly evoke a periodontal latera cyst, we must keep in mind the possibility of an UA which is locally aggressive and has high risk of recurrence. In our case, finding the balance between the aspect of the lesion, patient's young age, psychological fragility, post operation process and biopsy diagnostic needs was our dilemma. Our patient is 23 years old men with a mural unicystic ameloblastoma, diagnosed with general anxiety disorder. The final decision was to turn to a simple enucleation because of the small size of the lesion, and its radiological features strongly evoked a periodontal lateral cyst. Aside clinical arguments, patient's young age and his psychological condition were in favor of a conservative treatment. Caronov's solution was not used to decrease the risk of recurrence since the lesion destructed the cortical in some portions, becoming in contact with soft tissues and the alveolar vascular nervous plexus. Marsupialization also was not an option because of the small size of our lesion, besides, even if the aspect of the lesion strongly evoked a periodontal lateral cyst, the possibility of an ameloblastoma was in mind. Therefore, we needed to present the entire specimen to the biopsy exam. Two years later, no sign of radiological recurrence was noted. However, we are aware of a later resection eventuality in case of recurrence.

#### **Audience Take Away:**

- This poster introduces to the audience a rare case of an introsseaous unicystic ameloblastoma presenting radiologically high similarities with the periodontal lateral cysts. It reminds her that odontogenic cyst can be mistaken with UA, therefore it should be considered as a differential diagnosis
- It reminds professionals about UA subtypes and their recurrence risks
- It mentions to professionals the eventuality of an incomplete diagnosis of the UA by biopsy since it might present histologically several growth patterns: each one characterized by different recurrence risks. Therefore, the audience should consider presenting to the anatomopathological examination the entire specimen when odontogenic cyst features or typical UA are noted
- This case is also a good example of holistic approach: how risks and benefits should be wisely thought off before opting for an invasive treatment

#### **Biography**

Maya Fedhila is a last year dental student from the University of Monastir (Tunisia). She is about to complete her internship program in the Oral Surgery Department of the Sahloul Hospital. She will present her doctoral Thesis on December 2021 for the diploma of General Dentist. She aspires to pursue her specialization training in the United States as she will take the INBDE on April 2022. She has one article under review in an indexed journal, and a second one under writing process about the study she conducted as her thesis.



**Alex Kalaigian**University of California, United States

# Cone-beam computer tomography (CBCT) In orthodontics: A review of functionality, advantages, limitations, and potential applications

**Purpose:** The purpose of this educational exhibit was to review the functionality, advantages, limitations, and potential applications of cone-beam computer tomography (CBCT) in orthodontics.

#### **Search Methods and Data Collection:**

Peer-reviewed articles were acquired via the PubMed MEDLINE database until March 2022. Article selection was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta- Analyses (PRISMA) Statement based on predetermined inclusion criteria. Quality of evidence was evaluated according to the Grading Recommendation Assessment, Development and Evaluation (GRADE) criteria.

**Summary:** Cone-beam tomography systems are modern radiographic imaging machines that produce three-dimensional images of dental and facial structure by rotating around a patient while capturing data with a cone-shaped x-ray beam. The need for three-dimensional imaging techniques originates from the limitations of two-dimensional imaging systems such as panoramic radiography. Some of these limitations include image distortion, elongation or compression of target tissues, overlapping of structures, and resolution differences across digital receptors. CBCT systems, by contrast, capture structures in multiple orthogonal planes (i.e., coronal, sagittal, axial), thereby generating images with improved accuracy and reduced magnification distortions, ghost images, and overlaps. In addition, CBCT systems provide practical advantages such as rapid scan times and lower radiation dosages. While the benefits of CBCT systems pique the interest of many practitioners, its drawbacks ultimately prevent widespread implementation. From an imaging perspective, CBCT systems demonstrate poor contrast resolution, thus detecting internal structures composed of soft tissues remains a challenge. These images are also susceptible to artifacts originating from scattered radiation, beam hardening, patient movement, and cone-beam effects. From a practical perspective, CBCT systems require additional training and cost more than their two-dimensional counterparts. The potential applications of CBCT in the realm of orthodontics remain a topic of study. Current uses of CBCT in orthodontic diagnoses and treatment planning include evaluation of impacted teeth, cleft lip, and cleft palate. Previous studies have demonstrated potential applications in examination of supernumerary teeth, root resorption, implant placement, TMJ pathology, craniofacial asymmetries, obstructive airways, and placement of temporary anchorage devices (TADs). New applications of CBCT arise almost daily. In the near future, CBCT systems may be used to develop three-dimensional digital models (without the need for alginate impression), Invisalign retainers, and orthodontic brackets.

#### **Audience Take Away:**

- Inform listeners on the functionality and performance of CBCT imaging systems
- Assist practitioners considering implementation of CBCT systems via information on the advantages and limitations
  of this technology in orthodontic practice. Outline the potential future applications of CBCT systems in the field of
  orthodontics
- This case is also a good example of holistic approach: how risks and benefits should be wisely thought off before opting for an invasive treatment

#### **Biography**

Alex Kalaigian studied Chemical Engineering at Villanova University, graduating with a B.S. in 2021. He continued his education at the University of California, San Francisco, School of Dentistry where he will earn his D.D.S. in 2025. He will conduct additional research this summer on the relationship between oral health and mental health. He plans to pursue a career in orthodontics following graduation from dental school.



Maya Fedhila
University of Monastir, Tunisia

# Two rare non-hodgkin's lymphoma cases emphasizing the diagnostician role of oral surgeons

ymphomas are a heterogeneous group of malignant tumors of the haematopoietic system divided into two major Categories: Hodgkin's lymphoma and non-Hodgkin's (NHL). NHL may present an intranodal site, or in 40% of cases an extranodal one: the oral cavity and digestive tractus being its main extranodal locations. According to the specific subtype of the lymphoid cells involved, more than 20 different types of NHL have been recorded through the WHO classification. Therefore, we are presenting two highly aggressive known NHL presenting both a mandibular location. The first one is about a 72-year-old female patient who was diagnosed with a large B-cell lymphoma: the most common type of NHL originating from the germinal center and usually presented as rapidly enlarging. The patient presented a gingival bleeding lesion having locally ulcerated raised edges. Her CT scan revealed infiltration of the right lateral mandibular soft tissues associated with a poorly limited osteolytic lesion affecting the mandible crest. Fortunately, the lymphoma was diagnosed at an early stage, thus the patient was referred to the onco-hematology department where she received a chemotherapybased treatment. She showed a clear improvement after the first cycles. The second case concerns a 16-year-old male patient diagnosed with Burkitt's lymphoma presenting primary abdominal and secondary oral localization. His CT scan showed a tumoral mass of the ileocecal junction associated with peritoneal carcinomatosis, besides he presented a mandible extensive gingival mass ranging from the 34 to 37 teeth. The patient was surgically operated on his abdominal tumour and was referred to the onco-haematology department where a chemotherapy treatment was initiated. Unfortunately, the patient died one month later. In fact, the prognosis of NHL depends on the degree of the initial extension and the speed of treatment initiation, therefore as in our second case, a late diagnosis Is usually fatal. The common particularity of our cases was the presence of a mandible location, which is very rarely reported in NHL cases (0.6%). Nevertheless, it is one of the first signs an oral surgeon can notice: giving him an important role in the early diagnosis. In fact, the diagnosis of a NHL should be raised in front of a persistent superficial painless lymph nodes at any location, hepatomegaly, splenomegaly at an unusual context, and general signs such as weight loss, fever, etc... Once suspected, only a deep and good quality biopsy can reveal the right diagnosis of a NHL. However, since these circumstances are not very specific, clinician mislead can easily be observed making the diagnosis difficult and worsening the prognostic by delaying the treatment. Therefore, mandibular NHL should be included in the differential diagnosis of other jaw lesions despite its rareness, and a deep biopsy must always be performed in case of suspicious findings following a meticulous clinical examination.

#### **Audience Take Away:**

- This poster introduces to the audience two NLH cases presenting a rare location: the mandible, reminding oral surgeon about their important diagnostician role
- It reminds them about clinical and biological findings that should lead them to suspect NHL and how a good and deep biopsy is necessary to diagnose this malignant tumor
- It recalls oral surgeons about NHL subtypes and their characteristics
- Those two cases present the urge to a rapid lymphoma diagnosis to avoid fatal consequence, presenting the multidisciplinary treatment of NHL

#### **Biography**

Maya Fedhila is a last year dental student from the University of Monastir (Tunisia). She is about to complete her internship program in the Oral Surgery Department of the Sahloul Hospital. She will present her doctoral Thesis on December 2021 for the diploma of General Dentist. She aspires to pursue her specialization training in the United States as she will take the INBDE on April 2022. She has one article under review in an indexed journal, and a second one under writing process about the study she conducted as her thesis.



**Gabriela Miranda de Paula**Federal University of Pernambuco, Brazil

## Oronasal fistula after palatoplasia

Palatoplasia is a procedure which aims the anatomical reconstruction between the nasal and oral cavity, muscle repositioning and complete restoration of the structures of the velopharyngeal sphincter, in order to provide adequate velopharyngeal closure for speech development. One of its complications is oronasal fistula. The objective of this work was to study the surgical techniques for the closure of oronasal fistulas. The research has found the following results: There are several techniques for the repair of oronasal fistulas, such as mucoperiosteal flap, temporoparietal flap, pharyngeal flap and tongue flaps. We can conclude that there are several presentations of palatal fistulas and a variety of techniques for their correction. Therefore, it is important to know them in order to use the most suitable for each case.

#### Biography

Academic of the 10th period of the Dentistry course at the Federal University of Pernambuco (2021.2), Recife campus, and Academic of the 1st period of the Administration course at Uninter. Former Director of People and Management at Empresa Júnior Delta Odontologia at the Federal University of Pernambuco, Junior Company of consultancy in Marketing and Financial Management. She worked as an intern at the Oral and Maxillofacial Surgery and Traumatology service at UFPE. She was a monitor of the surgery discipline. Currently, she works as a People and Culture Intern at Excelsior Seguros.





25-27\



**Takehisa Iwai**Tsukuba Vascular Center, Japan

# Periodontal bacteria induced arterial and venous thrombus in the rats: Its pathology, immunology and the pathogenesis for buerger disease and atherosclerosis

Periodontal bacteria had been detected from various vascular disease or related disorders. And statistically these are believed as one of the pathogenesis of the diseases. However, the pattern of the reaction and inflammation analysis has been unclear. Our rat model revealed that the inflammatory reaction including natural immunological reaction demonstrated clearly. And pathological changes were strongly similar to Buerger disease (thromboangiitis obliterans). When the atherosclerotic factors including hypertension, diabetes, or hyperlipidemia are mixed, pathological changes are estimated to contribute to the atherosclerosis progress occurred in the heart, brain, carotid arteries and so on. We show the clinical cases including other hypothesis. In these discovery, as the intimal trauma is initiated by lipo-poly-saccharides (LPS), pathogen must be Gram negative anaerobic bacteria. The bacteria live a short time (several hours) and die soon. We named it 'Kamikaze infection' (not real infection).

#### **Audience Take Away:**

- They can understand the mechanism of arterial occlusion
- They will understand the meaning of teeth treatment for prevention of arterial or venous occlusion
- They will get a lot of imagination of systemic diseases related strongly with periodontitis and its bacteremia

#### **Biography**

Emeritus Professor of Tokyo Medical and Dental University, Director of Tsukuba Vascular Center, and President of Japanese Society pf Phlebology. Major field: Vascular Surgery. Education: 1967 Tokyo Medical and Dental Univ. Faculty of Medicine graduation. Professional experience: 1992 Associate Prof. Tokyo Medical and Dental Univ. 1st Dep. of Surgery.1997 Prof. Tokyo Medical and Dental Univ. 1st Dep. of Surgery. 2000 Prof Tokyo Medical and Dental Univ. Graduate School of Medicine, 2007 Director of Tsukuba Vascular Center. Award: International Union of Angiology 1st Prize, London. He has done in 1978 Ph.D. Tokyo Medical and Dental Univ. Honor member of Japanese Society of Vascular Surgery.





25-27\



**Beata Kaczmarek**HOLIMEDICA Physiotherapy, Poland

# Holistic approach to TMJ treatment in team: Dentist, physical therapist, speech therapist

The authors present their concept based on a cooperation between a dentist, physiotherapist and speech therapist f I in an interdisciplinary treatment environment wherein temporomandibular joints (TMJs) can be addressed. The position of the head is conditioned by the alignment of the first cervical vertebrae. The upper cervical column determines the symmetry of TMJ function. Asymmetrical head position will produce a fulcrum. The whole orthognathic system is stabilized by the resting position of the tongue and its normal function, as well as the occlusal contacts. All these elements determine a healthy and functional system. Any significant asymmetry within any element will produce compensations in other elements of the stomatognathic system. How the patients holds his/her head and how it translates to the TMI function. How to evaluate the resting position of the tongue and which structures affect its resting position and function. What type of therapy should be applied to a patient with abnormal tongue resting position and which manual therapy techniques can be applied in the mouth? When and/or at which stage of therapy should a physiotherapist or a dentist refer the patient to a speech therapist? The authors will present how these factors are interrelated. They will show how to assess the particular elements as part of a basic physical therapy evaluation. They will also discuss indications for referring patients to other specialist in the dentist-physiotherapist-speech therapist team. Some elements of a manual examination of the viscerocranium are included in the presentation, in particular, the role of head position, TMJ function, and tongue resting position. New understanding of the system will allow specialists to take a wider look at the diagnosis of TMJ dysfunctions, not only as they relate to the mouth, but also the head and neck. Participants will learn a new tool that will help them quickly assess which of these elements may be the cause of TMJ overload and where the root cause of the dysfunction is situated. Clinical cases will be discussed as part of the presentation.

#### **Audience Take Away:**

- Participants will learn to initially assess whether the patient's problem is related to cranial-vertebral dysfunctions, tongue dysfunction, or malocclusion
- Participants will be able to more accurately determine the cause of a TMJ dysfunction on the basis of a more accurate examination
- Participants will know when to refer a patient to another specialist for further functional diagnostics
- Accurate diagnosis will allow the specialist to plan TMJ treatment, ensuring a better effectiveness and stability

#### **Biography**

Beata Kaczmarek – graduated from the Wrocław University of Health and Sport Sciences, Wrocław 2003. Łukasz Kaczmarek – graduated from the University of Physical Education in Warsaw, Warsaw 2011. The authors teach their own courses based on the approach to the treatment of TMJ dysfunctions developed by Professor Mariano Rocabado, as well as own experience gained from cooperating with many specialists.



**Humera Ayesha**Rajiv Gandhi University of Health Sciences, India

## Evidence based management of Oral manifestations in covid-19

oronavirus is an acute respiratory syndrome which is caused by a single stranded RNA virus of coranaviridae family. ■The most common clinical symptoms seen are fever, fatigue, headache, and sore throat, shortness of breath, dry cough, abdominal pain, vomiting, and diarrhea. With or without nasal congestion, runny nose, or other upper respiratory symptoms. The oral manifestations could be a typically clinical pattern resulting from the direct SARS-CoV-2 infection or a systemic consequence, impaired immune system, given the possibility of coinfections, impaired immune system, and adverse reactions of medical treatment. With respect to oral mucosa, Angiotensin-converting enzyme 2 (ACE2) receptor is commonly seen in dorsum of tongue and salivary glands permit the attachment of the virus, their fusion, intracellular entry, and infection. Site of involvement of oral lesions in covid include. Oral manifestations reported in COVID: Taste disorders Xerostomia Ulcerations Periodontal lesions Angular chelitis Candidiasis, Erythema multiforme, ulcer, erosion, bulla, vesicle, pustule, fissured or depapillated tongue, macule, papule, plaque, pigmentation, halitosis, whitish areas, hemorrhagic crust, necrosis, petechiae, swelling, erythema, and spontaneous bleeding. The most common sites of involvement in descending order were tongue (38%), labial mucosa (26%), palate (22%), gingiva (8%), buccal mucosa (5%), oropharynx (4%), and tonsil (1%). Suggested diagnoses of the lesions were aphthous stomatitis, herpetiform lesions, candidiasis, vasculitis, Kawasaki-like, EM-like, mucositis, drug eruption, necrotizing periodontal disease, angina bullosa-like, angular cheilitis, atypical sweet syndrome, and Melkerson-Rosenthal syndrome. Oral lesions were symptomatic (painful, burning sensation or pruritus) in 68% of the cases. Oral lesions were nearly equal in both genders. The management includes complete oral hygiene instructions to the patients. Wide range of agents like artificial salivary substitutes, topical steroids, antifungal mouth washes, ointment containing neomycin, nystatin, and triamcinolone acetonide, anaesthetic agents are used for oral lesions depending upon the etiology. As a dentist we need to study the behaviour of different strains of COVID 19 and their action on oral mucosa. Research should be carried out on a broader perspective on newer variants.

#### **Audience Take Away:**

- Interpret whether the lesion is a primary cause due to COVID 19, or a systemic consequence, impaired immune system, or adverse reaction of medical treatment
- Diagnose the oral lesion with thorough knowledge of its onset, clinical presentation
- Investigate a case of invasive fungal infection like Mucormycosis which has a fatal outcome
- Manage a case of oral lesion and treat it according to the etiology
- Dental considerations on newer variants of COVID 19

#### **Biography**

Dr. Humera Ayesha has completed her graduation and post-graduation from Al Badar Dental College & Hospital Gulbarga which is affiliated to Rajiv Gandhi University of Health Sciences, Bengaluru. She obtained the position of Senior Lecturer in the same institute. She published more than 50 research articles in National and International Journals



# Ramesh Nagarajappa\*1 and Gayatri Ramesh2

<sup>1</sup>Siksha 'O' Anusandhan University, India <sup>2</sup>Chamarajanagar Institute of Medical Sciences, India

# Impact of internet addiction on academic performance of dental students of bhubaneswar, India

Internet Addiction (IA) causes serious health effects and interferes with regular tasks. The objectives of the present study were to assess the level of internet addiction and its impact on academic performance of undergraduate dental students of Bhubaneswar. A cross-sectional descriptive survey was steered among 814 undergraduate dental students (representing first year through internship) in Bhubaneswar, India. Internet addiction was assessed with Internet Addiction Test (IAT) developed by Young that consisted of 20 items rated on a 5-point Likert scale. Google forms were used to collect the data. Statistical tests like Chi-square, Kruskal-Wallis, and Spearman correlation coefficient were used to analyze the qualitative and quantitative variables respectively with the level of significance set at p ② 0.05. The prevalence of Internet Addiction was found to be 27.5%. Interns showed the highest mean Internet Addiction (57.91\overline{10.71}) score. The proportion of addicted students was found to be higher in males 74 (31.4%) than females 150 (26%). The mean scores for individual domains were overuse (16.31\overline{20.53}). A correlation coefficient (Spearman's rho value of -.167) indicates a negative correlation between internet addiction and academic scores which was statistically significant (p=0.001). This study revealed that the use of internet for varying purposes is eventually leading to its addiction and affecting the academic performance of students. The affected students need early intervention and control over internet usage.

#### **Biography**

Ramesh Nagarajappa, graduated from the prestigious Bapuji Dental College and Hospital, Davangere, India in 1999. He is presently working as a Professor and Head, in the Department of Public Health Dentistry affiliated to Siksha 'O' Anusandhan (Deemed to be University) at Bhave a post-graduation teaching experience of over 21 years and guiding both PhD and MDS students. He have also authored 133 publications in various international and national reputed journals. Been a regular reviewer too in many journals. He do have an experience of delivering scientific presentations and chairing scientific sessions in various conferences.



**Ayman M Khalifah**Taibah University, Saudi Arabia

# Factors affecting decision making stages during the assessment of student's clinical performance, a cognitive approach

This presentation sheds a light on assessment practices in clinical Settings and focuses on assessors' modulation of the whole cognitive process. The argument involves discussing critical thinking of assessors before, during, and after the event of assessment. Then, it analyzes a cognitive approach of assessment implied by assessors during students' performance. Further, it proposes a model with step-by-step approach in decision-making along with different factors, which may strongly influence final grades. Four mainstages were identified for the purpose of analysis, such as predecision, driver, primary decision, and communication stages. Possible factors related to the assessment and assessors' cognition that derived from literature were discussed in terms of the influence on the final decision towards more stringent or lenient decisions, following a temporal sequence for the proposed model events. Finally, both primary and secondary factors involved in each stage were presented.

#### **Audience Take Away:**

- Getting the idea of cognitive structure during the assessment of students' clinical performance
- Understanding the relationship between decision making and the cognitive structure of assessor's can decrease the complications of our cognition during clinical assessments
- Dental educators will be able to apply the four main stages of the cognitive approach (the pre-decision, driver, primary decision and moderation stage)
- Does this provide a practical solution to a problem that could simplify or make a designer's job more efficient? By
  the end of this presentation, interested dentist who are involved in assessing dental trainees can monitor their own
  assessment decisions in more efficient way

#### **Biography**

Dr. Ayman is a general dentist who studied health professional education at the University of Western Australia, Australia as Masters in 2013. Then continue his job as lecturer of dental education at Taibah University, Saudi Arabia. He is now part of the teaching group for senior and final year dental students, both introductions to dental profession and research project courses. Publishing 7 articles and assisting as a reviewer in some medical and dental journals that are ISI and Scopus ranked.



# **Mariana Ramos Patrao**Egas Moniz University Institute, Portugal

### Impact of anti-resorptive therapy on oral rehabilitation with dental implants

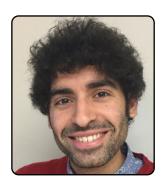
nti-resorptive therapy includes five pharmacological classes – bisphosphonates, denosumab, hormonal replacement  $m{\Lambda}$ therapy, selective estrogen receptor modulators and calcitonin. It is used to treat pathologies such as osteoporosis, cancer and bone metastases, Paget's disease and osteogenesis imperfecta. Dental implants are considered the best treatment option for replacing missing teeth, having high success rates and numerous advantages over other well-known prosthetic alternatives. Since anti-resorptive therapy interferes with bone metabolism, and implant success depends on the osseointegration process, which in turn depends on bone turnover, it can be assumed that these drugs influence implant success rates. Thus, the main aim of this presentation is to discuss and share information about the impact that anti-resorptive therapy can have on oral rehabilitation with dental implants, namely on survival rates, marginal bone loss and development of medication-related osteonecrosis of the jaws. This pathology appears as a rare complication associated with the use of bisphosphonates and denosumab, being one of the main causes of implant loss. Oral doses of bisphosphonates do not seem to be responsible for the increase in the implant failure rates, nor do they provide differences in the level of osseointegration and marginal bone loss, presenting high success and survival rates. In contrast, intravenous doses of bisphosphonates are associated with bigger failure rates. Besides the impact of this type of drug, the effect of the pharmacological classes previously named will also be debated. The articles about this theme reveal the lack of available evidence on this topic, especially in relation to hormonal replacement therapy, selective estrogen receptor modulators and calcitonin, demonstrating the urgent need for further studies as well as the need to create universal medical practice guidelines.

#### **Audience Take Away:**

- The aim of this presentation is to demonstrate the impact that anti-resorptive therapy can have on oral rehabilitation using dental implants, namely in their survival, peri-implant marginal bone loss and development of drug-related osteonecrosis of the jaws
- On the one hand, patients under this type of medication are increasingly common in dentistry appointments. On the other hand, when it comes to replacing missing teeth, the best available prosthetic options are dental implants, but their high success rates are influenced by local and systemic conditions. The medication prescribed for the treatment of bone pathologies such as osteoporosis, cancer and bone metastases, Paget's disease and osteogenesis imperfecta, which includes anti-resorptive drugs, may contraindicate oral treatments using implants. However, the literature is controversial and does not provide a consensual response regarding the best clinical approach for these patients considering the risk of complications, such as osteonecrosis of the jaws, associated with the placement of dental implants
- All things considered, this presentation is very practical and provides an exclusive specific treatment algorithm to
  help the clinician decide on implantology procedures in patients undergoing BF and DMAB that take into account
  the associated risk of developing osteonecrosis of the jaws. It was drawn after the gathering of the most relevant
  information in the area over the last 20 years and provides a key tool for the treatment's success, helping the clinician
  to make decisions based on existing scientific evidence, and not on their personal and empirical experience solo,
  while safeguarding patients' best interests
- The literature available nowadays reveals a lack of scientific evidence regarding the effect of anti-resorptive medication on oral rehabilitation with implants and it is not clear about the safety of anti-resorptive drugs. Therefore, further studies are needed to
- Assess the impact, in the short and long term, of the use of anti-resorptive drugs both in the success, survival and failure of dental implants, and also in the triggering of pathologies such as osteonecrosis of the jaws;
- Determine, similarly to what happens with tooth extractions, the risk of development of osteonecrosis of the jaws during implant placement surgery

#### **Biography**

Dr. Mariana studied Dentistry at Instituto Universitário Egas Moniz, Portugal, and graduated in 2021. During her course she worked as a student monitor in different subjects and by the end of her Master's degree she was asked to enrol a PhD in the Orthodontics' area. In the Investigation world, Mariana is better known for her work linking periodontitis and systemic health, being one of the authors of important publications such as "Periodontitis Impact in Interleukin-6 Serum Levels in Solid Organ Transplanted Patients: A Systematic Review and Meta-Analysis" and "Validity of the association between periodontitis and female infertility conditions: a concise review".



**Riccardo Monterubbianesi**Polytechnic University of Marche, Italy

### Research and clinical applications in restorative dentistry

Nowadays, in restorative dentistry, resin-based composite is considered the gold standard material for direct or indirect reconstructions because of its high biocompatibility and aesthetics. However, common issues related to resin-based restorations, as polymerization shrinkage stress, gap formation, microleakage and debonding, still represent a challenge for dental clinicians. In the last few years, to minimize the occurrence of these problems and ensure the physical and chemical properties of the restoration, the properties of resin-based material and their placement procedures have been significantly improved by the introduction of nanotechnologies, which optimize their performance. The presentation aims to investigate all these aspects by discussing clinical case and evaluating in vitro study with different high-resolution instruments: Raman Spectroscopy, SEM, EDS and Micro Computer Tomography.

#### **Audience Take Away:**

- Improving the knowledge of resin-based material and their clinical use
- Through high-resolution images, the audience will learn tips and tricks to avoid daily mistakes

#### **Biography**

Riccardo Monterubbianesi is Research Fellow at Dental Faculty of Polytechnic University of Marche (Ancona, Italy) in the group of Prof Giovanna Orsini and Prof. Angelo Putignano. He has over 20 publications and his personal H-index is 6. In addition, he has been serving as an editorial board member of different international Journals. He has expertise in evaluation the characteristic of dental materials for Restorative and Esthetic Dentistry.



**Hilal Erdogan**Veli University Faculty of Dentistry, Turkey

### Biocompatibility of calcium silicate-based root canal sealers

Endodontic treatment is a multi-step procedure, and different materials are used in this process. Endodontic materials should be biocompatible, non-toxic, well tolerated by periapical tissues, and stimulating healing properties. Biocompatibility is the compatibility of the material with the biological functions of tissues while in contact with vital tissues without causing tissue reactions such as systemic or local toxicity, allergic, genotoxic, mutagenic, and carcinogenic effects. The biocompatibility of root canal sealers is very important. Root canal sealers, which can cause a toxic reaction and tissue necrosis, may prevent tissue healing as well as affect the success of endodontic treatment. Bioactive materials are used in endodontic procedures to improve healing results. In endodontics, root canal sealers with different contents and properties are classified in various forms. Calcium silicate-based root canal sealers are becoming popular in endodontics due to their strong biological attractiveness, supported by various studies showing their biocompatibility and bioactivity. Tri/dicalcium silicate-based root canal sealers are marketed under different brand names. Tricalcium silicate materials exhibit bioactive properties due to their ability to form hydroxyapatite on their surfaces and osteogenic effect. This presentation aims to review the biocompatibility properties of calcium silicate-based root canal sealers, with an emphasis on their benefits, shortcomings, and clinical applications, and propose rational indications for these sealers based on available information. Thus, it will help to provide a perspective on developments in this field.

#### **Audience Take Away:**

- Review the biocompatibility properties of calcium silicate-based root canal sealers
- Explain the benefits, shortcomings, and clinical applications of current calcium silicate-based root canal sealers
- Propose rational indications for these sealers based on available information
- Describe possible avenues of development in calcium silicate-based root canal sealers

#### **Biography**

Dr. Hilal Erdogan graduated from Selcuk University Faculty of Dentistry, Konya Turkey, and obtained her Doctor of Dental Surgery (DDS) degree in 2009. Subsequently, she completed a Ph.D. program at Selcuk University Faculty of Dentistry Department of Endodontics, Konya, Turkey in 2016. She worked at the Ministry of Health Oral and Dental Health Hospitals as an endodontist until 2019. She has been working as an Assistant Professor in the department of Endodontics, Faculty of Dentistry, Nevşehir Hacı Bektaş Veli University, Nevsehir, Turkey since 2019 and the head of the endodontics department. She is a member of the Turkish Endodontic Society. Dr. Erdogan has publications in national and international journals related to her specialty and attends many national and international conferences.



Balamurugan R RYA COSMO Foundation, India

# 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

**¬**his study was to assess the analgesic and anti-inflammatory properties of ibuprofen when administered through two drug delivery systems after mandibular third molar surgery. The study was conducted on 100 patients who required the surgical removal of impacted mandibular third molars under local anaesthesia. The study subjects were divided into two groups of 50 patients each. Patients in the study group were given ibuprofen-incorporated chitosan-based microspheres, which were packed into the third molar sockets after removal of impacted teeth. Patients in the control group were prescribed with ibuprofen 400mg tablets that were to be administered orally after the removal of impacted mandibular third molars. All patients were assessed for pain, swelling, and trismus on the second, fourth, and seventh postoperative days, and wound healing was assessed on the seventh postoperative day. Patients in the study group had significantly less pain and comparatively better mouth opening on the second, fourth, and seventh postoperative days, which showed clinically and statistically significant results of p<0.05, respectively, while the assessment of swelling for the study group did not show statistically significant results on any of the three postoperative days. Among 50 patients in the study group, two had wound gaping, and among 50 patients in the control group, four presented with wound gaping and three patients developed dry socket. Ibuprofen-incorporated chitosan-based microspheres (study group) had comparatively better analgesic and anti-inflammatory properties with drastic reduction of pain, swelling, trismus, and also had a reliable wound healing property when compared with the orally-administered ibuprofen (control group) after mandibular third molar surgery.

#### **Biography**

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.



**Thu Ngoc Yen Nguyen**University of Medicine and Pharmacy, Vietnam

## Antibacterial effect after endodontic treatment with self - adjusting file system

This study aimed to evaluate the antibacterial effectiveness when preparing root canal with the self-adjusting file system on the single-canal teeth with necrotic pulp using molecular method.

**Methods:** The research was conducted with the independent evaluator, performed on 15 patients with single-canal teeth, necrotic pulp, indicated for endodontic treatment. All objects were instrumented using by the self-adjusting file system under simultaneous irrigation with 3% NaOCl. Microbiological samples in the canal taken before and after root canal preparation with paper points were subjected to real-time polymerase chain reaction (real-time PCR) to quantify total bacteria.

**Results:** The mean concentration of total bacteria in the microbiological samples taken from the root canal before preparation was  $4.36 \times 107$  DU and after preparation was  $1.51 \times 106$  DU (1DU  $\sim 1-5$  copies/ml). Preparation of infected root canals with the self-adjusting file system was statistically significant in reducing total bacterial load in the canal (p <0.05; paired T-test). After root canal preparation, all microbiological samples (S2) still had detectable bacteria by molecular method.

**Conclusion:** The self-adjusting file system is an effective tool in removing bacteria from infected root canals. In addition, self-adjusting file system helped to save time of preparation thanks to simultaneous irrigation during preparing. However, since bacteria cannot be completely eliminated when preparing infected root canals with the self-adjusting file system, supplementary disinfection strategies are still required.

#### **Audience Take Away:**

- Self-adjusting file system effectively reduced concentration of bacteria in root canal
- Self-adjusting file system helped to save time of root canal preparation
- This research provides evidences for clinical decision in selecting preparation file system

#### **Biography**

Thu Nguyen studied Dentistry at the Faculty of Odonto-Stomatology, University of Medicine and Pharmacy at Ho Chi Minh city, Vietnam and graduated as DDS in 2012. She then joined the research group of Dr. Patcharee at the Chulalongkorn University, Thailand. She received her PhD degree in Oral Biology in 2018 at the same instituition. She currently works as a lecturer at the faculty of Odonto-Stomatology, University of Medicine and Pharmacy at Ho Chi Minh city. She has published 3 research articles.



**Durgadevi B**Indira Gandhi Institute of Dental Sciences, India

# Software computer - assisted dynamic navigation, the road map for implant placement

E dentualism and the loss of function and aesthetics has been the most difficult field to operate in dentistry. "There is no higher replacement for natural teeth" being an authentic and realistic quote is slowly being replaced. Dental implants have replaced the natural teeth's function and aesthetics in such higher levels. The discrepancies in angulation, depth and distance from adjacent teeth while placing implant, highly alters the outcome of the implant. According to Gallardo et al (2017) - the use of a static, computed tomography (CT)-generated guide stent with a coordinated system of specified drilling can result in less than 2 mm crestal and apical deviation from the plan and an angulation error of less than 5°; this time consuming method has been used previously used, but with less precision. The computer-assisted navigational surgery was first applied by Watanabe in 1987 in neurosurgical procedures. It allows direct access to specific targeted areas through smaller incisions, thus making surgery less invasive, reliable and reducing overall operation. Dynamic software navigation is used in implant placement using Cone beam computed tomography. The component consists of Localiser, Surgical Instrument and Imaging Data Set. Gargallo-Albiol et al (2019) has compared software dynamic navigation, static navigation and free hand implant placement and concluded in a systematic meta-analysis that except for increased cost, dynamic navigation is more advantageous in accuracy, precision and success of implants. This lecture will include basic understanding of Dynamic navigation components and working, followed by the literature data on accuracy and alterations.

#### **Biography**

I'm a young and enthusiastic Oral physician and Maxillofacial Radiologist, graduated from Mahe Institute of Dental sciences, Mahe, Pondicherry, India. Been a Gold medalist for all the 5 years and was awarded "The best outgoing student of the batch" in my BDS graduation held in 2017. I joined Oral Medicine and Radiology in Mahatma Gandhi Postgraduate Institute of Dental Sciences, (Government dental college) immediately after BDS. With great values and patient care, I enjoyed my MDS and also sought through research and published papers. I attended a Software Navigation – workshop in the National Conference, which sparked my interest in the topic. I have recently started as Senior Lecturer in Indira Gandhi Institute of Dental Sciences, Sri Balaji Deemed to be University, Pondicherry, India. I'm also an active participant in ongoing lecture series "Case Studies in Orofacial Pain and Headache" and "Interprofessional headache and Orofacial pain rounds" being conducted by American Dental Association, Harvard University and Tufts University, School of Dental Medicine. With the realisation that there lot more to learn and update in dentistry and Oral medicine, I'm currently working under a clinical trial and few radiological studies.



**Pavithra Prabakaran**Rajiv Gandhi University of Health Sciences, India

## Dentinal collagen stabilization - key to successful composite restorations

omposite resin restorations have overtaken any other dental materials for restoration of anterior as well as posterior ✓ teeth because of its esthetic and adhesive properties. Resin-dentin bond is solely dependent on the hybrid layer. Due to the acid etch technique in total etch technique and prolonged etching action in case of self-etch adhesives, there is a timedependent degradation of the dentinal collagen which debilitates the hybrid layer. This ultimately leads to microleakage and secondary caries formation causing the failure of composite restoration causing distress to both the patient and the clinician. Increased knowledge of role of enzymatic degradation has led to extensive research in the preservation of the hybrid layer. Various strategies are being studied to avert the deterioration of hybrid layer. Inhibition of the proteolytic enzymes and stabilising of exposed dentinal collagen has been a topic of extensive research for preserving the hybrid layer and provide better quality composite restorations. Use of dentinal biomodifiers which could be employing physical methods such as administration of ultraviolet radiation and use of chemical agents which could be synthetic eg. chlorhexidine, glutaraldehyde, carbodolimide, chitosan, chitosan nanoparticles or natural such as curcumin, proanthocyanidin, etc for collagen stabilisation is gaining interest. The objective is to review the current literature on preserving dentinal collagen while bonding and also to propose a research hypothesis of formulating a newer generation of dentin bonding agent by incorporating a collagen stabilising agent. The aim of this presentation is to throw light on collagen stabilisation to enhance dentin bonding, to pave way for a new era of everlasting composite restorations and improve the overall quality of the dental treatment.

#### **Audience Take Away:**

- Enhance the knowledge on dentin bonding in a composite restoration.
- Enlightens the audience on dentinal collagen stabilization
- Improves the quality of composite restoration
- Provides a scope for research in the arena

#### **Biography**

Dr. Pavithra Prabakaran has completed her BDS (Bachelor of Dental Surgery) from Dayanand Sagar College of dental sciences, Bangalore, India in 2017. She did her MDS (Masters in Dental Surgery) in department of Conservative Dentistry and Endodontics from Government Dental College and Research Institute, Bangalore (2018-2021). She is currently working as assistant professor in department of Conservative dentistry and endodontics, NSVK Shri Venkateshwara Dental College and Hospital, Bangalore, India. She has authored several publications and has also presented papers and posters in conferences and PG conventions.



**Maryam Shahrokhi Sardo**Shiraz University of Medical Science, Iran

# Comparison of serum and dietary selenium levels in participants with a positive history of recurrent herpes lesions and healthy individuals

**Aim:** In this study, we aimed at comparing the level of serum and dietary selenium in participants with positive history of recurrent herpes labial lesions and healthy controls.

**Materials and Methods:** This cross sectional study, conducted during 2020-2021, evaluated the selenium serum level of 40 participants with positive history of recurrent herpes labial lesions that had referred to Motahhari laboratory in Shiraz, compared with 38 healthy controls. The selenium level of serum was assessed by an absorption device, Atomic Graphite Furnace Model FS-240-AAS, made by a US Company. Independent T test was used to compare the selenium level of males and females. In order to assess the mean age value and gender distribution between the two evaluated groups, independent T test and chi square were used, respectively. The serum selenium level was compered between both control and test groups.

**Results:** The level of serum selenium was not statistically correlated with its dietary level in group 1(participants with recurrent herpes labialis, P.value=0.18) and group 2(healthy controls, P.value=0.6). The serum selenium level was compared between group 1 and 2, which was significantly higher in healthy controls (P.value<0.0001). In contrast, selenium Dietary level was not significantly different between patients with a history of herpes labialis and healthy controls. (P.value=0.48). The level of serum selenium was not statistically correlated with its dietary level in group 1 (P.value=0.18) and group 2 (P.value=0.6).

**Conclusion: Patients** with recurrent herpes labialis have lower serum selenium level as compared to the healthy controls.

#### **Biography**

Maryam is a dentist, graduated from Shiraz University of medical science in 2021, she is also a research assisstant for the oral disease department and in addition she studies MDPH (master of dental public health) at Tehran University of medical science. She is currently working part-time as a instructor in the restorative department at kerman university of medical science. She has published some original research papers for journals. Her current researches focus is Oral cancers, treatment and public health.



**Viral Pravin Maru**DY Patil University School of Dentistry, India

### Zirconia crowns: A paradigm shift in pediatric esthethic crowns

Traditionally, many clinicians tend to forego esthetic considerations when full-coverage restorations are indicated for pediatric patients with primary dentitions. However, the availability of new zirconia pediatric crowns and reliable techniques for cementation makes esthetic outcomes practical and consistent when restoring primary dentition. The present paper helps us to understand the steps in tooth preparation to receive zirconia crowns as well as tips and tricks to enhance its retention.

#### **Audience Take Away:**

- Knowledge about zirconia crowns
- Clinical steps as to how to prepare tooth surfaces
- Indications/contraindications of zirconia
- Advantages and disadvantages of zirconia
- How to use them in daily clinical practice effectively

#### **Biography**

Viral Pravin Maru is a renowned pediatric dentist, practicing in Mumbai, Maharashtra, India since 2007. He is currently pursuing PhD in the same subject from D Y Patil School of Dentistry, Navi Mumbai. He has been working in the field of stem cell research since 2015 extensively. He has many national and international publication to his credit. At present he holds the prestigious post of associate professor in one of the renowned educational institution. He has a personal interest in stem cell research applied to pediatric dentistry.



**Ankita Jaiswall**Babu Banarasi Das College, India

### Beyond Orthodontics: Innovations in recreating aesthetic smile

"Beauty is in the mind of the beholder, each mind perceives a different beauty" famously said by writer Margeret Wolfe Hungerford. A beautiful smile is a gateway to the world. It was determined, smile design is a multifactorial process and various steps are involved in designing a radiant smile. The success of smile design is determined by the patient's soft-tissue limitations and the extent to which orthodontics or multidisciplinary treatment can satisfy the patient's and orthodontist's esthetic goals. What does it mean to be innovative in orthodontics? Is "innovate" simply the adoption of the latest in technologies and concepts already available in our orthodontic marketplace? Actually, innovation is defined as: "to make changes in something established, especially by introducing new methods, ideas, technology, or products." Today I will be talking on innovations in creating smiles: an orthodontic perspective and I will be covering following topics:

- Invisalign
- Invisalign Teen™
- Incognito<sup>™</sup>
- Temporary Anchorage Devices
- Clear Braces
- High-Tech Alloy Wires
- Digital X-Rays
- Digital 3D Impressions
- Cone Beam Computed Tomography (3-D imaging)
- Clear Retainers
- Cosmetology procedures
- I hope this lecture opens a new dimension of treatment planning in consulting patients for orthodontic treatment

#### **Audience Take Away:**

Audience will learn the recent technologies, the modifications, hard tissue and soft tissue enhancement for smile designing

- Explain how the audience will be able to use what they learn?
- As this lecture emphasize more on clinical aspect of smile designing they will learn the recent tools, Newer protocols and innovative technologies for treatment planning which will help them to portray much better treatment options to the patients as well as it will provide an extra edge to their clinical practicing skills.
- How will this help the audience in their job? Is this research that other faculty could use to expand their research
  or teaching? Does this provide a practical solution to a problem that could simplify or make a designer's job more
  efficient? Will it improve the accuracy of a design, or provide new information to assist in a design problem? List all
  other benefits
- Since this lecture portrays the newer techniques which are less technique sensitive and require less chair side time hence this will upgrade the audience in their job to a next level. Since these techniques have been launched recently there is a whole new area is left to explore through research and it will also upscale teaching field with new knowledge and enlighten the new budding minds not only strengthening their roots but also providing them with new dimension of newer technicalities. Since every enhancement with changing time will only improve the accuracy of design so I hope this will provide all new information required for designing a solution to any problem.

#### **Biography**

Dr.Ankita Jaiswall studied B.D.S. at Subharti dental College, Meerut in 2007-2012. She then passed her M.D.S. in Department of Orthodontics from Saraswati Dental College, Lucknow. She has published more than 30 research articles and have been awarded as women of substance 2022, (health care category) and superwomen award 2022 (health care category. she had been interviewed for India's most admired women in educational sector March, 2022 in the magazine "the Knowledge review".

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