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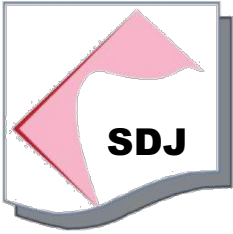


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“Together for Advanced Dentistry”

The First Sulaymaniyah Dental Meeting & Exhibition was held as a collaboration of the College of Dentistry/ University of Sulaimani, Sulaimani Polytechnic University, Kurdistan Dental Association, Sulaymaniyah Health Directorate and Peshmarga Health Foundation. This meeting took place 27-28 April 2017, in Sulaymaniyah, Iraq. The general session provided scientists and researchers throughout the region with the opportunity to present, discuss and critique their investigations.

This meeting also featured Scientific Group/ Network Sponsored Symposia, Hands-on Workshops, keynote speakers, Scientific Group/ Network meetings and receptions, a meet-a-mentor program, special events, an exhibition by companies and universities specializing in the dental, oral and craniofacial research field and Lunch & Learning sessions.

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Pinhole Surgical Technique® for Treatment of Gingival Recessions: A Case Series

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Implantology) 1 College of Dentistry/ University of Sulaimani, 2 Peshmarga Health Foundation

Abstract

Background and Aim: The treatment of gingival recessions is a common requirement due to aesthetic concern and root sensitivity in today's periodontal therapy. Several procedures have been proposed to preserve or enhance patient aesthetics. Connective tissue graft with either tunnel technique or coronally advanced flap are the most widely used procedures. However, these techniques require a skilled periodontist as well as morbidity associated with secondary graft. These issues have generated interest in other methods. Recently pinhole surgical technique® was introduced as a minimally intensive procedure for root coverage. The purposes of this case series are to evaluate the usefulness of pinhole surgical technique in covering exposed root and to evaluate patients' satisfaction.

Case Presentation: Three patients attended a private clinic complaining of dental hypersensitivity and elongated teeth affecting their quality of life. They were diagnosed with Miller class I and II gingival recessions. The patients were screened for their suitability and offered pinhole surgery to cover the exposed roots. Initially, non-surgical periodontal treatment was provided and two weeks later the surgical procedure was performed according to the pinhole surgical technique standard protocol.

Conclusion: Full root coverage was achieved immediately after the procedure (approximately 30 minutes) and after one month of follow up. Furthermore, patients were more satisfied with the treatment outcome in terms of aesthetic and reduced sensitivity. Longer follow ups are planned to monitor long term stability of the treatment.

Gingival depigmentation – a report of four cases treated with two different treatment modalities



Faraedon M. Zardawi – BDS, MSc, Mphil-PhD, Harem Jaafer hama Rashid – BDS, MSc, Mohammed Taib - BDS

Abstract

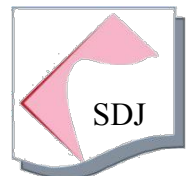
Background: Normal colour of the gingiva is determined by the amount of melanin, carotene and haemoglobin within the gingival tissue, these being the most common natural pigments contributing to the normal colour of the gums. Although physiologic and ethnic melanin pigmentation is not a medical problem, complaints about "black gums" are common. The conventional surgical treatment modality is traumatic treatment causing sufficient post-operative pain and discomfort with high possibilities of early relapse or recurrence of gingival melanin pigmentation. Recently, laser ablation has been recognized as a most effective, pleasant and reliable technique. Therefore, the aim of this report was to show a comparison between both treatment modalities from the following points of view: Firstly, performance and effectiveness at the time of the procedure; secondly, patients' complaints during the post-operative healing phase; and lastly, the clinical outcome after complete healing of the surgical sites.

Treatment: The current study presents four cases of gingival hyper pigmentation that were treated according to severity and distribution of the pigmentation and the patients' demands. Two cases were treated by laser using the Erbium:YAG laser (Distance – 7-9 mm (non contact, defocused mode plus water cooling – energy 300 mJ and a frequency of 10-15 Hz), whereas the other two cases were treated by conventional surgical ablation using blade no 15. The patients were scheduled for three postoperative follow-up visits, at one week, 2 weeks and 8 weeks.

Results: The result showed that laser therapy is a soft and less traumatic procedure for ablation of pigmented gingiva. The procedure was performed with minimum local anaesthetic and a bloodless field and with higher patient satisfaction and relief. Furthermore, patients treated by laser showed less post-operative discomfort and faster healing than those treated by surgical method. However, both procedures showed similar clinical outcome after complete healing of the wound. Further post-operative follow-up time is required to determine the incidence of recurrent of gingival pigmentation after both surgical and laser depigmentation.

Conclusion: Stamp technique is an easy method of restoration of surface morphology of the tooth without any occlusal disharmony or time consumption implications.

Management of Miller class II gingival recession by laterally positioned pedicle flap revised technique



Sulaimani Dent. J.

Dildar A. Osman, B. D. S, Msc. Periodontology

Abstract

Background and Objective: Gingival recession is the shifting apically of gingival margin which is normally located on the crown surface of the tooth to the root surface apical to the cementoenamel junction which can cause major functional and aesthetic problems. It can cause many clinical problems such as root caries, loss of attachment, sensitivity and esthetic problems. The aim of this study was to evaluate the effectiveness of a modification of surgical procedure to laterally reposition the displaced flap for treatment of isolated recession.

Methods: 25 patients with Miller class II gingival recession attended the department of periodontology in the College of Dentistry, Hawler Medical University for treatment of their problem. Their gingival recession was about 2 to 5mm in the lower anterior teeth with shallow vestibule. After full preparation of the patient, which included scaling and polishing and root planing, the laterally displaced revised flap technique was carried out. Patients were followed up at 2 week and 3 month intervals to assess the post-treatment changes during this period. The parameters used were pocket depth, clinical attachment loss and gingival recession, which can be measured as the distance from CEJ to the base of the pocket.

Results: On the recipient side the mean gingival recession was about 3.2 mm at base line; after 2 weeks the mean gingival recession was 0.6mm; and after 3 months it was 0.38mm. Meanwhile, on the donor side the mean gingival recession was 0 mm at base line; after 2 weeks the mean gingival recession was 1.05mm; and after 3 months it was 0.5mm.

Conclusion: It may be concluded that laterally displaced revised flap technique in localized recession defects can be used to restore the major esthetic and functional problems which are associated with gingival recession.

Cosmetic periodontal surgery is a stride toward a pleasant smile: Review and case presentation report



Sulaimani Dent. J.

Dr. Faraedon M. Zardawi – BDS, MSc, Mphil-PhD, Dr. Mohammed Tayib - BDS

Abstract

Background: A pleasant smile is the outcome of a harmonious integration between the teeth, lips and the gum. Orofacial esthetics refers to dynamic facial expressions, such as smiling and speaking. The movements of the lips are the controlling factor for tooth and gingival display.

A gummy smile is a condition in which a person shows a larger than average amount of gum tissue when smiling, with several factors participating alone or simultaneously in its etiology: plaque- or drug induced gingival enlargement, altered or delayed passive eruption, anterior dentoalveolar extrusion, vertical maxillary excess and short upper lip or hyperactive upper lip. Gummy smile can be treated according to etiology and severity, in severe cases – orthognathic surgery/orthodontic treatment; whereas, in mild and moderate cases lip repositioning surgery/gingivectomy is the treatment of choice.

Materials and Methods: This in vitro study was established to evaluate the effect of adding calcium carbonate nanoparticles at different concentrations on the bonding strength of maxillofacial silicone elastomer to the acrylic resin, before and after accelerated aging.

Method: Seventy samples were prepared, ten samples per each group. Each silicone sample was sandwiched between two strips of acrylic resin via A-330-G adhesive primer. From each group five samples were undergoing accelerated aging. All samples were tested for shear bond strength by using Instron testing machine.

Aim: The aim of this case presentation was to investigate the clinical effectiveness of two periodontal plastic surgeries:

- 1- Lip repositioning technique
- 2- Gingivectomy by external bevel incision plus osteoplasty.

Case Presentation: Two females attended with short upper lip, exposing large amount of the gingiva while smiling. After thorough examination, case 1 was treated with lip repositioning surgery, while case 11 showed very deep sulcular depth and irregular gingival topography over labial alveolar bone showing hard projected patches. CBCT revealed thickening of the alveolar bone. This was treated with gingivectomy plus full thickness flap to perform ostectomy and osteoplasty.

Results: Satisfactory results were achieved and the smile of both patients was improved, which was confirmed by patients' satisfaction.

Strategic Immediate Functional Implant without Bone Augmentation or Sinus Lifting

Nabeel Seryoka Martani Lecturer BDS, MSc, PhD

Halwer Medical University, College of Dentistry Erbil, IRAQ.

Abstract

Background: Oral rehabilitation with dental implant is becoming a routine treatment in many dental clinics. Patients with insufficient amounts of bone volume and or proximity of maxillary sinus present challenges for implant supported prosthesis without bone augmentation or sinus lifting prior to or during implant placement, with associated cost, healing time, complications and limitations.

Objective: The objective of this research was to focus on an alternative treatment modality comprising immediate loading of strategic dental implants in basal bone and cementing of the fixed prosthesis within 72 hours without bone augmentation or sinus lift procedures. Method: This retrospective study reviewed the medical records of patients treated with strategic basal implant placement in the maxillary arch at the Saint Joseph Health Center in Erbil, Kurdistan, Iraq from January 2013 to December 2016.

Result: The success of strategic implant placement with immediate functional loading was evaluated in terms of absence of complications, patient satisfaction and survival rates. Patients with basal implant placement showed no failure of implants. All implants included in the study showed high survival.

Conclusion: Clinicians have successfully managed many cases of strategic dental implants and produced a good outcome in patients with resorbed alveolar ridges and or proximity of maxillary sinus. Further long-term studies are required to evaluate its success rate in terms of load distribution, marginal bone loss around the implant and prosthesis survival.

Maxillary Sinus Membrane Elevation and Simultaneous Implant Placement without Grafting Materials



Assist. Prof. Luqman Fawzi Omar¹, Akram Mahmood Elias²

1,2 BDS MSc Oral and maxillofacial surgery, Hawler Medical University

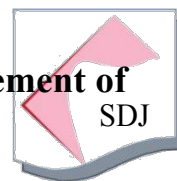
Abstract

Background and objective: Previous studies have shown that simultaneous elevation of the sinus mucosal lining and placement of dental implants (Ritter dental implant system) without graft materials can be a predictable procedure. The purpose of the present study was to evaluate the results of the maxillary sinus membrane elevation technique and simultaneous implant placement without using any graft material.

Materials and methods: Fifteen patients with maxillary resorbed ridges received 27 implants (Ritter implants of different size and length) protruding into 18 sinuses either via lateral osteotomy window (n=20) or via crestal osteotomy (n=7). A Cone Beam Computed Tomography (CBCT) scan was taken immediately post-operatively to assess the clot formation and to measure the anchoring residual bone height all around the implants (i.e. mesiodistally and buccopalatally), and after a 6 month healing period another CBCT was taken to assess the new bone formation.

Results: The mean (\pm SD) residual bone height was 4.96 ± 1.64 mm preoperatively. All the implants (except one) survived till the end of the follow-up period, giving a survival rate of 96.3%. Cone beam computed tomography scan demonstrated an average of 3.11 ± 1.7 mm of intra-sinus new bone formation 6 months after surgery, the highest bone gain being 9.3 mm and the lowest being 0.425 mm.

Conclusions: The present study demonstrated that sinus membrane elevation and simultaneous implants placement (Ritter implant system) without adding grafting materials led to new bone formation and high implants success rate and intra sinus new bone formation around the implants beyond the original limits of the sinus floor over a period of 6 months.



Sulaimani Dent. J.

Surgical significance of the lower third wisdom tooth in relation to management of mandible angle fracture

Muhammed Aso BDS, Assistant Prof. Falah Abdulla Hawrami BDS, HDD, FICMS College of Dentistry, University of Sulaimani.

Abstract

Objectives: Mandibular fracture is the most common fracture in facial injuries, with angular fracture being the most prevalent for various reasons. The aims of this study were to identify the incidence of mandibular angle fracture among a Kurdish population and the importance of the lower third molar in the treatment of mandibular angle fracture.

Patients and Methods: 45 patients who attended Sulaimani teaching hospital, Sulaimani emergency hospital and Rizgary teaching hospital in Hawler from April 2016 to February 2017 with mandible angle fractures. A pre-designed questionnaire was used to collect the data from patients.

Results: Amongst these 45 patients, 77.8% were male and 22.2% were female, with a mean age of 25.29 years. Road traffic accident (RTA) (55.6%) and assault (15.6%) were the most common causes of mandibular fracture. Undisplaced fracture (57.8%) and unilateral fracture (95.6%) were the more common forms. Furthermore, mandibular angle fractures were more associated with impacted 3rd molar (63.8%) and mesioangular impaction (46.7%). Mandibular angle fractures mostly coexist with Parasymphysis fracture (37%). Close reduction with intermaxillary fixation (64.4%) was the most used treatment for mandibular angle fracture and 61% of teeth in the line of fracture were retained.

Conclusion: Mandible angle fractures were more common in males and the age group 20-30 years. RTA was still the most common cause of angle fracture with presence of lower wisdom teeth. Impacted lower third molar increases the risk of angle fracture and close reduction is the treatment of choice, especially for undisplaced fracture.

Three-dimensional evaluation for root canal obturation using different obturation materials by Micro Computed tomography (Micro-Ct)



Sazan Sh. Saleem, BDS, MSc, PhD (Conservative), Lec. P.O.P department , Hawler Medical University.

Abstract

Objectives: 3D evaluation of root canal obturation using different obturation materials and techniques by Micro computed tomography.

Material and methods: thirty single root, single canal teeth were selected and used in this study. All canal instrumentations were done by using a Neoflix rotary File according to the manufacturer's instructions. Then all instrumented canals were divided randomly into 3 groups: group one: 10 canals obturated by AH plus with cold gutta-percha; Group two: 10 canals obturated by AH plus with thermafil; Group three: 10 canals obturated with Guttaflow.

All obturated canals were scanned by micro-Ct for measurement of volume percentage of gaps and voids at different levels in the obturated canals by using specialized micro ct software, and then all the collected data were statistically analyzed.

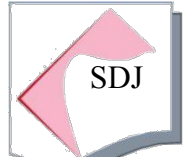
Results: Higher percentages of voids and gaps were identified in the coronal third of root canal than in the middle and apical third. Among the obturating materials, the results showed that cold gutta percha obturation had more voids and gaps than other obturating materials with non-significant differences between thermafil and guttaflow.

Conclusion: None of the root canal obturating materials were gap-free and root canals obturated with thermafil and guttaflow showed less gaps and voids. A good coronal seal following endodontic treatment is very important for the longevity of the treatment because most of the voids and gaps were located in the coronal third.

The Concept of the Self Adjusting File in Endodontics

Assist. Professor Dr. Nawfal Zakarea

BDS., MSc., PhD. Conservative dentistry University of Mosul / University of Ishik



Sulaiman
Dent. J

Abstract

Background: A primary aim of root canal treatment is to completely clean and shape the root canal system. There are three main classifications of root canal preparations: first, the conventional root canal preparation technique; second, the minimally invasive endodontic preparation; and third, the non-cutting preparation technique.

The standardized system was used for many years and required each instrument, file or reamer, to be placed to the full working length. The canal was enlarged until clean white dentine shavings were seen on the apical few millimeters of the instrument.

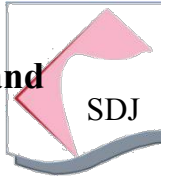
Minimally invasive endodontics (MIE) aims to preserve the maximum amount of tooth structure during root canal therapy. In the last 15 years there has been rapid progress and development in endodontics, making treatment procedures safer and more conservative.

One of the instruments now used is the self-adjusting file (SAF) which is a new concept for cleaning and shaping of the root canal, and was developed to overcome the inherent remaining problems of the nickel- titanium instruments. In flat-oval or tear-drop shaped root canals, it may be difficult to instrument the entire wall of oval canals with rotary file systems and they often fail to adequately clean and shape the canal.

Aim of study: The purpose of this talk is to explain the concept of minimally invasive root canal preparation, including the SAF and the advantages, disadvantages and principles relating to its use.

Conclusion: The SAF improves the biomechanical preparation of root canal and it can be considered as a promising and minimally invasive instrumentation technique, although along with its advantages it still has some shortcomings in comparison with conventional methods.

(Clinical approach) two cases reports of separated instrument in the second and first permanent mandibular molar respectively



Sulaimani Dent. J

Mohammed Rashed Nabi Bandi BDS, MSc Conservative dentistry,

College of dentistry, department of conservative and prosthodontics, University of Duhok

Abstract

Instrument breakage during treatment can lead to serious complications and carries the risk of treatment failure. When a file breaks in the canal, bypassing or removal can be difficult and the long-term prognosis of the tooth may be compromised. Sometimes surgery may be indicated for removal of the broken segment. Often some part of the root cannot be cleaned because of blockage by the broken file. This report presents a specific approach to non- surgical removal of a broken file from the second and first permanent mandibular molar in the apical and middle third which was partially over extended into the periapical lesion. The canal was cleaned and shaped, and then filled with mineral trioxide aggregate (MTA).

The removal of an instrument fragment located in the apical third or a middle third of the root canal is particularly complex, and attempts to do so can increase the risks of ledge formation, root perforation, and root fracture. The diameter and curvature of the canal, type of fractured instrument, and amount of potential damage to the remaining tooth structure should be considered when removing fragments from this location. Several removal techniques and devices have been described, including drills, extractors, ultrasonic tips, dental operating microscopes, and electrochemical processes, but no standardised procedure for the removal of intracanal metallic obstructions has been established. Traditional extractors, such as the Masserann kit [MicroMega, Besancon, France], and new extractor systems, such as the Endo Rescue kit [Komet/Brasseler, Savannah, GA, USA], are very useful for the removal of fractured instruments.

Root Surface Temperature Changes during Root Canal Laser Irradiation with Dual Wavelength Laser (940 and 2780 nm): A Preliminary Study

Darya Haidary, BDS, MSc, Rene' Franzen, PhD, and Norbert Gutknecht, DDS, PhD

Abstract

Objective: This study aimed to evaluate the temperature changes on the root surface during root canal irradiation using 2780 nm erbium, chromium: yttrium, scandium, gallium, garnet (Er,Cr:YSGG) and 940 nm diode lasers in an alternating sequence.

Materials and method: Eighteen single-rooted human teeth were randomly divided into three groups (n = 6). The teeth were embedded in a resin block, and six thermocouples were introduced at different positions on the tooth surfaces, while immersed in a 37_C thermal bath during laser irradiation. The laser radial firing tip (RFT2) was operated in helicoidal movements and withdrawn from the root canal in a coronal direction at a speed of 2 mm/sec. Group A was irradiated with the Er,Cr:YSGG laser (1.25 W, 25 mJ, 50 Hz, 50 ls pulse duration, 50% water, and 30% air spray); Group B was irradiated with the Er,Cr:YSGG laser (same settings) and a 940 nm diode (2 W, with 20% duty cycle); and Group C was irradiated with the Er,Cr:YSGG laser (same settings) and a 940 nm diode (2 W, 50% duty cycle).

Method: The same steps are followed for each tooth, 1-Use extracted molar and premolar teeth. 2-Take Preoperative radiographs from 2 angles (direction): from bucco-lingual (palatal) and mesial-distal angles for all teeth, to see the anatomy of root canal space from these hidden angles. 3-Access the canals under 4X loupes or Microscope (DOM). 4- Shape the canal by hand file and take Radiographs from both bucco-lingual & mesial-distal angulation. 5-Close the canals using traditional hand gutta percha and take Radiographs from both bucco-lingual & mesial-distal angulation. 6- Remove hand gutta percha and continue rotary shaping to the same sizes as with hand files. 7- Close the canals with rotary gutta percha and take Radiographs from both bucco-lingual & mesial-distal angulation. 8- Remove rotary gutta percha and inject hot gutta percha by continuous wave technique and take Radiographs from both bucco-lingual & mesial-distal angulation.

Results: The maximum temperature recorded was in the apical thirds of Groups A–C, resulting in increments of 8.35_C, 7.33_C, and 3.82_C, respectively. All measured temperatures were considerably below the critical value of 10_C.

Conclusion: The alternate use of Er,Cr:YSGG and 940 nm diode lasers can be considered biologically safe for application in endodontics.

Measurement of missing, decay and filling of teeth among visually impaired individuals compared to normally sighted individuals in Suleimani city

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1,2,4 Conservative Department/ Dental School/ University of Sulaimani/ Iraq

3 Department of dental nursing, Sulaimani Polytechnic University, Sulaimani/ Iraq) 5

Department of Periodontics, School of Dentistry/ University of Sulaimani/ Iraq

Abstract

Objectives: The present study was conducted to assess caries prevalence through measuring missing, decay and filling of permanent teeth among visually impaired individuals in Sulaimani city in comparison with normally sighted individuals to determine whether this disability had an effect on dental health or not.

Materials and methods: Forty visually-impaired volunteers were screened at the Basic Runaky Institute for the Visually Impaired, while at the same time the same number of normally sighted individuals had their dental health status checked by a group of dentists. The DMFT was measured for each volunteer; also the frequency of tooth brushing was recorded through asking questions about tooth brushing and dental care.

Results: the prevalence of dental caries was lower in the study group than in the control group, and there was a highly significant difference in DMFT between the study and the control group. Similar results were found on comparing the filling components of the study group with those of the control group, while a non-significant difference in decay and missing components was identified on comparing the study group with the control group.

Conclusion: The findings of this study demonstrate that visually impaired subjects have a low prevalence of dental caries, low DMFT score but lower rate of regular tooth brushing.

Evaluation of polymerization shrinkage and depth of cure of silorane based composite resin and methacrylate based composite resin by comparative study



Sulaimani Dent. J

Dr. Diyar Kh. Bakr. Ph.D Conservative, Lecturer in college of dentistry.

Conservative Department/ College of Dentistry/ Hawler Medical University. diyar.bakr@den.hmu.edu.iq, diyarss@yahoo.com.

Abstract

Objectives: composites constitute the majority of direct tooth coloured restorations since they can replace the biological tissue. The major drawbacks of composite resin relate to polymerization shrinkage. This study aimed to compare the polymerization shrinkage and depth of cure among three different types of composite resin.

Methods: fifteen premolar teeth for each group were collected and cavities prepared on the buccal surface to depths of 1.5 mm, with diameter of 3 mm, using a diamond cylindrical bur with water coolant. Then each of the fifteen cavities was filled with one type of composite resin according to the manufacturer's instructions. After that the specimens were stored in deionized water for one week. Subsequently, the marginal gaps were observed and measured by using a light microscope with a reticular measuring ocular. To test the depth of cure, fifteen samples for each group were prepared using metal molds of 6 mm length and 4 mm diameter. The test materials were light cured, then the specimens were removed from the mold and the uncured material was gently removed with a plastic spatula. The height of cured material was then measured with a micrometer and the values were divided by 2, this value being recorded as a depth of cure.

Results: The descriptive statistics for the degree of polymerization shrinkage among the three groups clearly indicated that the P90 had the lowest value for shrinkage, with significant difference among the groups. Regarding the depth of cure, the Sigma clearly showed the highest value, with significant difference among the groups.

Conclusion: Silorane composite resin produced less polymerization shrinkage in comparison with methacrylate composites resin. The depth of cure of methacrylate composite resin was greater in comparison with that of silorane composite resin.

Compressive Strength of New Iraqi Dental Cement

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3Dept. of DBS, College of Dentistry, University of Mosul, Iraq University

Abstract

Aim: The aim of this research was to evaluate the compressive strength of a newly prepared cement and compare it with results for polycarboxylate cement and American National Standards Institute Specification Number 96 for water based cement.

Materials and Methods: The powder of the new cement was composed of (70%) Calcium oxide (prepared from egg shell), (3%) Hydroxy appetite (prepared from eggshell), (25%) Magnesium oxide, (1.5%) Bismuth oxide, and (0.5%) Calcium acetate. The Liquid was polyacrylic acid.

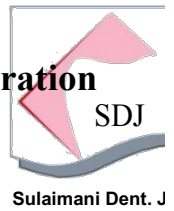
The new cement was checked for compressive strength, Polycarboxylate cement (from Harvard) was used as a control material and the results on the tested material were compared with the American National Standards Institute Specification Number 96 for water based cement.

Results: the results showed that the newly prepared cement had higher compressive strength than polycarboxylate cement and complied with ANSI/ADA Specification No. 96 for dental water-based cements.

Conclusion: Within the limitations of this research it was concluded that the new cement has greater compressive strength than poly carboxylate cement.

An easy & simple way of applying stamp technique in direct composite restoration

Dr. Mohammed Abdullah Mahmood - BDS



Abstract

Objectives: Stamp technique is a method used with composite restoration in order to restore the original surface morphology of the tooth. This technique is indicated in all surface restorations when the anatomy of the tooth is not disturbed by carious lesions, as detailed anatomy of the tooth is gained by applying this technique.

The aim of this clinical trial is to restore the exact anatomy during composite restoration by stamp technique to enable dentists to overcome difficulties in duplicating occlusal anatomy by free hand layering technique.

Patients and methods: This clinical trial was performed on five patients with class 1 caries; all five cases were restored by using stamp technique with composite resin material.

Prior to treatment a stamp was made by using light cure flowable composite & Calcium hydroxide hold by micro brush and light cured, then the cavity was prepared following routine steps of cavity preparation. The Composite was placed incrementally according to the depth of the cavity, until the last layer was reached, at which point composite was added or applied into the prepared cavity by pressing the occlusal stamp against the tooth with the aid of a piece of Teflon as a separating layer. After removing the stamp, the Teflon was removed by slapping over the composite in a horizontal direction in order not to remove the composite with it, then the excess was removed and marginal adaptation was done by using a micro brush, and the composite was cured.

Results: The restorations were done with the exact anatomy and with minimum manipulation to avoid excess removal and polishing. Every patient was satisfied with the restoration regarding time consumed for each restoration, and they were assessed after one month, with no problems identified.

Conclusion: Stamp technique is an easy method of restoration of surface morphology of the tooth without any occlusal disharmony or time consumption implications.

What is Interdisciplinary Therapy in Orthodontics?

Dr. Zana Qadir Omer, BDS, MSc, PhD (Orthodontics)

Hawler Medical University/ College of Dentistry.

Abstract

In recent years, increased focus on simplified and rapid intervention has created compromises in treatment outcomes. A lack of fundamental diagnosis and systematically sequenced treatment plans is being circumvented by technology and reliance on laboratory assistance. With the increasing expectations of the patients of an esthetically and functionally stable treatment result, the practice of dentistry is changing from a single specialist or general dentist practice to that of a team approach. This enables the best utilization of the skills and expertise of clinicians of different specialties for the best possible treatment outcome for the patient. Such joint care of a patient's dental needs is defined as interdisciplinary treatment. Orthodontics has always been the discipline that sets the stage for dento-facial esthetics. With the increasing demand for appeal and appearance, orthodontic treatment of adults has been the fastest growing area in the field of orthodontics.

The role of the orthodontist in such an interdisciplinary treatment approach can be primary or secondary. Primary treatment includes the case wherein an orthodontic patient requires adjunctive other specialist treatment such as prosthetic replacement of missing teeth, tooth build-up to match a Bolton discrepancy, periodontal rehabilitation, or surgical exposure of an impacted tooth, etc. Secondary includes cases where the orthodontic treatment rendered is an adjunct to other treatment planned, as in the case of space creation or tooth up righting to facilitate prosthetic replacement of a missing tooth, etc.

Early age orthodontic treatment: what should every practitioner know?

*Dr Hadi M Ismail BDS, MSc, PhD (Orthodontics) Lecturer at the Dental Nursing Department,
Sulaimani Polytechnic University.*



Sulaimani Dent. J.

Abstract

Background: Early orthodontic treatment includes any measure performed to correct a developing malocclusion or to simplify later orthodontic care. Early age orthodontic treatment is applicable in some cases with certain occlusal problems that could continue to worsen or be more difficult to treat at later stages of dental and skeletal development. If certain occlusal problems are not diagnosed and treated at the initial stage, they could deter the normal craniofacial development of the respective child. Interceptive orthodontic treatment reduces the complexity of some malocclusions during the mixed dentition phase of dental development; however, a follow-up orthodontic treatment is usually required when the permanent dentition has been established.

Objectives: The purpose of this talk is to identify some of the evidence-based advantages of early age orthodontic treatment. The talk will be enriched by some clinical cases with early orthodontic treatment intervention. This will guide orthodontists and general practitioners to recognize the effectiveness of early age orthodontic treatment, consequently guiding the patients to the right way.

Methodology: Recent literatures on advantages of early age orthodontic treatment were reviewed.

Conclusion: The timing of orthodontic intervention has been a hot subject of discussion for a decade along with early treatment to treat or to prevent skeletal discrepancies in sagittal, transverse and vertical planes as well as to alleviate crowding in common practice. Recent literature supports full correction of developed malocclusion with early intervention at the mixed dentition stage. In addition, early intervention is more cost effective than delayed intervention.

Myofunctional Orthodontics of Growing Children: Case Reports



Assist. Professor Dr. Mustafa Alsultan,

Dental College-Mosul University, Mosul.

Objectives: Many orthodontists worldwide approach biological problems mechanically, and the concept nowadays is shifted from rehabilitating the function and position of the teeth first to correction of soft tissue posture and function first then the teeth.

Methods: A ten-year-old male child attended my clinic suffering from a protruded upper left central incisor. On evaluating the patient, he was found to be a mouth breather with open mouth posture, depressed cheek, protruded eyes, deep labiomental angle, flat upper lip and overturned lower lip and a V-shaped upper arch.

Results: After six months of using the Kids version of Myobrace series 1 and 2 (Myofunctional Research Co, Australia), the normal mouth posture was established and all soft tissues defects were improved.

Conclusion: Expanding the maxilla to fit the tongue with lip training and establishing nasal breathing is the key to achieving normal craniofacial development.

The Role of the Orthodontist in Newly Born Cleft Lip and Palate: Case Reports



Zryan Jaza Hama Salih, PhD in orthodontics,

Ministry of Health - Directorate General of Health, Sulaymaniyah – Iraq

Mehemet Nezir Karaca - research assistant in orthodontics –

Gaziantep University - College of Dentistry – Orthodontic Department – Turkey - Gaziantep

Merve Nur Eglenen - research assistant in orthodontics-

Gaziantep University- College of Dentistry – Orthodontic Department - Turkey-Gaziantep

Introduction: Cleft lip and palate are the most common craniofacial anomalies in infants and make the feeding process difficult. The presurgical nasolaveolar molding (PNAM) technique which is described by Grayson as an approach to presurgical infant orthopedics reduces the severity of the initial cleft alveolar and nasal deformity.

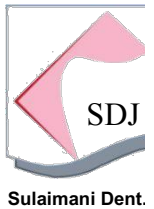
Objective: The purpose of this case report is to introduce the role of the orthodontist in treating newly born cleft lip and palate by making nasoalveolar molding

Case presentations: A 15-day-old girl presented with complete unilateral cleft lip and

palate and a 20-day-old boy with complete bilateral cleft lip and palate attended the hospital with feeding problems. After consultation with the physician a heavy body first impression was taken and poured to obtain a special tray for each patient. After taking the second impression feeding plates were made for both patients. The molding plates were inserted into the patient's mouth through a retentive button, with retentive taping used to force the premaxilla toward the alveolar region. The patients were checked at 1-week intervals and acrylic removal and primasoft addition were carried out in a specific area to draw the alveolar pieces toward each other. When the size of the cleft became less than 5 mm a nasal stent was made which caused active nasal cartilage molding and was activated through adding primasoft to elongate the collumella.

Results and conclusion: The shapes of the cartilaginous septum, alar cartilage tip, medial and lateral crus and alveolar segments were molded to resemble the normal shape of these structures. The orthodontist could help patients with bilateral and unilateral cleft lip and palate through making PNAM.

Cyclic and static bond strength of metal orthodontic brackets bonded to ceramic surfaces using different conditioning techniques



Omar F. Abduljabbar, BDS, MsC, PhD (Orthodontist) Lec. P.O.P Department, Hawler Medical University .

Diyar Kh. Bakr, BDS, MsC, PhD (Conservative) Lec. Conservative Department, Hawler Medical University.

Sazan Sh. Saleem, BDS, MsC, PhD (Conservative) Lec. P.O.P Department, Hawler Medical University.

Abstract

Objective: Evaluations of cyclic and static shear bond strength of metal orthodontic brackets bonded to ceramic faced metal disks using different conditioning techniques.

Material and methods: a total of 120 ceramic faced metal disks were fabricated. The specimens were divided into 4 groups: group one: the ceramic surface was etched with hydrofluoric acid alone. In group two: hydrofluoric acid and saline were used. In group three: after etching with hydrofluoric acid, the ceramic surface was sandblasted with aluminum oxide powder. Group four: the surface was etched using the YSGG solid state laser with water atomization (BIOLASE- USA).

All metal brackets were bonded to the ceramic surfaces in all groups using trans bond XT adhesive (3M, Germany) with a fixed amount of force application using a surveyor.

Cyclic and static shear bond strength testing was carried out on 15 specimens for each group. The collected data were subjected to analysis of variance and post hoc tests.

Results: in both tests, cyclic and static shear bond strength, the sandblasting process with hydrofluoric acid significantly increased the shear bond strength, with no significant difference among the three other groups.

Conclusion: cyclic loading significantly decreases bond strength. Sandblasting of ceramic surfaces provides higher bond strength than using hydrofluoric acid or hydrofluoric acid with saline.

Influence of platelet rich fibrin on osteointegration of titanium implants stabilized with two different microgaps



Mardin Othman Abdulqadir,1 Fouad A. AL- Belasy,2 Youssry Mahmoud Ali,3 Ahmed Sobhy Salim,4
1Technical College of Health , Sulaimani Polytechnic University, Iraqi Kurdistan region, 2Professor of
Oral and Maxillofacial Surgery, Faculty of Dentistry, Mansoura University, Egypt, 3Professor of Oral
Biology, Faculty of Dentistry, Mansoura University, Egypt, 4Assistant Professor of Oral and
Maxillofacial Surgery, Faculty of Dentistry, Mansoura University, Egypt

Abstract

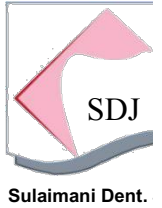
Objective: To evaluate the roughness of slots of three orthodontic ceramic brackets.

Materials and Methods: Three ceramic bracket brands (Encore, Reflections and Inspire ICE) were included in the study. The bottom of each slot of every bracket was selected for evaluation and pictures were taken by optical microscopy at magnification (20x) for a general estimation of the roughness. Then the roughness parameters (Sa, Sq, St, Sz) of every slot were defined in a 3D optical profilometer in a higher magnification and 3D-images were obtained.

Results: Optical microscope pictures revealed a variety of textural characteristics of slots for the brackets tested. Metallic slots presented grooves and striations whereas plastic slots presented peaks and pits. Inspire ICE presented the highest Sa and Sq value, statistically higher than the other brackets tested. The Reflections bracket exhibited the second highest Sa value, which statistically was higher among the other brackets. Reflections presented the highest Sz and St values, which were statistically significant higher than the other brackets, followed by Inspire ICE which presented statistically significant higher values compared to Encore.

Conclusion: 3D-images and roughness parameters of slots presented significant differences among the tested brackets. The addition of metallic slots to some of the tested brackets produced a statistically decrease in the average roughness with ceramic slots. Polycrystalline ceramic brackets presented no significantly difference with metal reinforced ceramic brackets compared with mono crystalline brackets. Encore exhibited low roughness parameters.

Assessment of Pre-surgical Molding Appliances in Unilateral Cleft Lip and Palate Patients (Clinical Study)



Lecturer. Dr. Younis M.S. Hasan¹, Prof. Dr. Khidair A. Al-Jumaili²

^{1,2}Department of Pedodontics, Orthodontics and Preventive Dentistry, College of Dentistry, University of Mosul, Mosul, Iraq.²

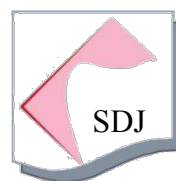
Abstract

Objectives: The aim of this study is to assess the efficiency of molding effects of pre-activated appliances developed in this study in comparison with previous appliances developed by Da Silveira et al. (2003).

Methods: The study was carried out on 24 participants, 12 per group, non-syndromic complete unilateral cleft lip and palate, newborn to 1 month infants. The working casts of both groups were scanned using CAD/CAM System and the 3D objects analyzed using Autodesk Inventor Fusion. Six measurements were assessed including cleft (widths & size), incisal point deviation, arch width (anterior & posterior) both mid and posterior palatal heights and total arch depth. Statistical comparison was determined using the SPSS program at $p \leq 0.05$.

Results: The descriptive analyses and comparisons of treated samples with Da Silveira et al. versus Pre-activated technique revealed significant differences for molding effects in all measurements except for (inter-tuberosity distance) at $p \leq 0.05$.

Conclusion: Modifying the molding plate by using Pre-activated appliances may reduce pre-surgical treatment visits and may improve molding effects.



Sulaimani Dent. J.

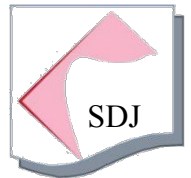
Sedation in dentistry

Dr. Huda Raad BDS, MSc Hawler Medical University

Abstract

High levels of dental caries, challenging child behavior, and parent expectations support the need for sedation in pediatric dentistry. Most dental anxiety develops in childhood as a result of frightening and painful dental experiences. If appropriate precautions are not taken, dental treatment may overwhelm the child, resulting in dental fear and avoidance. Inhalation conscious sedation dentistry allows appropriately trained dentists to create a safe and comfortable dental experience for patients who have avoided the dentist out of fear or who might have time restrictions. Reasons for requiring inhalation conscious sedation should be checked, Careful case selection should be coincided with precise treatment planning. Like everything else that was not taught in dental school (implants, adult orthodontics, complex cosmetic care, etc.), sedation requires advanced education, additional equipment, and different supplies.

Overview of conscious sedation in dentistry



Sulaimani Dent. J.

Aza Rahman BDS (Bagdad) MSc Sedation and special care dentistry KCL (London)

Abstract

Background: The provision of comprehensive dental care for certain people with disabilities, unstable medical conditions and nervous/phobic adults or children can present a challenge for dental teams. Historically, dental treatment for such people was conducted largely using general anaesthesia in hospital. This strategy has its risks on patients' health and several limitations. Therefore, it is strongly believed that alternative techniques should be considered in order to reduce those risks and improve the quality of dental treatment. Conscious sedation is one of the best alternative methods to general anaesthesia and its use has been approved by both the health service and General Dental Council in the UK. Many of these patients can be treated successfully using sedation techniques in combination with local analgesia.

This development facilitates the expansion of the dental profession, enabling increasing emphasis on restoration work, where previously dentists had been limited to performing extractions under general anaesthesia.

Methods: Recent literature and the UK guidelines on applications of conscious sedation in dentistry were reviewed.

Aim and objectives: The aim of the lecture is to provide dental practitioners with knowledge of the basic types of conscious sedation and its role in management of patients' dental treatment.

The objectives of this lecture:

- To give a brief summary about application of conscious sedation in dentistry.
- To describe the indications and contraindications for conscious sedation.
- To identify the advantages and disadvantages of basic types of conscious sedation.
- To provide a list of guidelines about the standards of conscious sedation in dentistry.

Conclusion: Based on the most recent UK guidelines, conscious sedation is an important fundamental aspect of modern practice of dentistry. All dental clinicians should monitor and maintain awareness of this treatment modality that can improve the quality of care for large groups of patients.

Cone-Beam Computerized Tomography in the Dental Clinic: Where and When to Use?



Mardin Othman Rashid BDS, MSc (Oral and Maxillofacial Radiology)

Oral Diagnosis Department, College of Dentistry, University of Sulaimani.

Abstract

Background: The conventional two dimensional (2D) intra- and extra-oral radiography has limitations in providing satisfactory diagnostic information and thereby proper treatment planning. This has led to a revolution in three dimensional (3D) radiography of Multislice Computerized Tomography (MSCT). However, morbidity of high radiation doses, cost and technical limitations in the dental clinic are associated with MSCT. Through the invention of 3D Cone Beam Computed Tomography (CBCT) the limitations of MSCT were addressed and it represents a radical change for dental and maxillofacial radiology by involving, “most importantly”, lower radiation doses, minimal metal artifacts, lower costs, easier accessibility and smaller size machines than MSCT. Furthermore, being a 3D radiography, CBCT can overcome limitations associated with 2D radiography such as lack of superimposition, 1:1 measurements, absence of geometric distortions and 3D display. The updated version of CBCT was adjusted for dental clinics; thus, its application in dental fields has been of interest to many dental practitioners and researchers. Many articles have been published on the uses of CBCT in almost every dental field.

Aims: The purpose of this talk is to identify some of the evidence-based advantages of CBCT and its variable applications in dental fields.

Conclusion: This talk will guide general dental practitioners and researchers to recognize when and where to use CBCT and consequently guide the patients to the right way.

Panoramic Mandibular Radiomorphometric Indices as Predictors of Osteoporotic Female, Diagnosed by DXA and Biochemical Investigations



Dr. Shara Mustafa BDS, MSc. Sulaimani Polytechnic University

Abstract

Background: Recent investigations have shown that panoramic radiography might be a useful tool in the early diagnosis of osteoporosis. In addition, bone turnover biochemical markers might be valuable in predicting osteoporosis and fracture risks in the elderly, especially in post-menopausal women.

Aim of study: To evaluate the relationship between the mandibular radiomorphometric indices using panoramic radiography in osteoporotic and non-osteoporotic females detected by biochemical markers of the bone turnover and spine BMD bone mineral density, and to obtain a possible means of early detection of osteoporosis by panoramic radiography.

Subject and Method: Evaluation of mandibular cortical width (MCW), gonial angle index (GO) and panoramic index (PI) was carried out on panoramic radiographs of 60 Kurdish females who were divided equally into three groups: control (20-30 years), non-osteoporotic postmenopausal aged 50 years and above, and osteoporotic postmenopausal aged 50 years and above. Lumbar vertebrae BMD was measured by DXA scan and divided into three groups according to WHO criteria as follows: normal (T score > -1.0), osteopenic (T score, -2.5 to -1.0) and osteoporotic (T score < -2.5). Serum alkaline phosphatase (ALP), serum calcium (S.Ca) and vitamin (VD) were measured by biochemical test. After collecting the data, they were analyzed using SPSS version 21.

Results: Significant positive correlation (r) was observed between bone mineral densities BMD of lumbar vertebrae and MCW ($r=0.633$) and PI ($r=0.477$) of mandibular indices, and negative correlation was observed between GO ($r= -0.298$) and BMD of lumbar vertebrae. There was significant ($P<0.05$) association between the MCW, PI and ALP in the three groups. But there was no significant association ($p>0.01$) between GO and MCW, PI. The results did not demonstrate a statistically significant relationship between VD and BMD.

Conclusion: Dental panoramic radiographs can be used in clinical practice to assist identifying individuals with low bone mass, which is valuable in the prevention of osteoporotic fractures in elderly women. Post menopausal women in the age range 50 and above with thin MCW will be at increased risk of low bone mineral density and osteoporosis. VD and Go were undependable in detecting osteoporosis.

Risk factors of oral mucositis in pediatric patients of Hiwa Hospital



Sulaimani Dent. J.

Dr. Khadija M. Ahmad BDS, MSc, PhD

University of Sulaimani.

Abstract

Background: Mucosal barrier injury (mucositis) is a common and solid malignancy, affecting most patients whose neoplasms are treated with intensive chemotherapy. Mucositis has been identified as a critical risk factor for infections and is a major driver of analgesic and total parenteral nutrition use. Several risk factors affect the development and severity of oral mucositis in cancer patients receiving chemotherapy.

Objectives: The objectives of the present study were to determine the incidence and risk indicators for oral mucositis in pediatrics and adolescent patients receiving chemotherapy.

Methods: A cross-sectional survey was carried out on pediatrics patients receiving different chemotherapy regimens at Hiwa hospital in Sulaimani city between April and August 2014. The degree of mucositis was recorded by WHO Common Toxicity Criteria (CTC). Potential risk indicators for the development of oral mucositis include age, gender, tumor types, treatment types, neutrophile count, liver enzymes, serum creatinin and bilirubin levels. The status of oral hygiene was evaluated using an oral hygiene index and gingival index. The associations between mucositis and risk indicator variables were tested using a (chi- square) test and Odd ratio.

Results: Of the 104 patients enrolled, 73 patients showed mucositis grade <2 and 31 patients had grade ≥ 2 . Male gender was predominant in both groups of mucositis. The majority of the patients had been diagnosed with solid tumor (52.9 %) and most had received an Etoposide-based regimen. Patients with neutropenia, altered renal function tests, those with poor oral hygiene and epithelial damage were highly significantly associated with incidence of oral mucositis grades ≥ 2 .

Conclusions: Our findings suggest that children who are neutropenic, those with serum creatinin and bilirubin elevation, and those with poor oral hygiene are at greater risk of developing oral mucositis.

Diseases affecting the lips



Sulaimani Dent. J.

Balkees Taha Garib, BDS, MSc, PhD, Professor of Oral and Maxillofacial Pathology, Department of Oral Diagnosis, College of Dentistry, Faculty of Medical Science, University of Sulaimani, Kurdistan Region, Iraq.

Neda AL-Kaisy, BDS, MSc, PhD Lecturer, Department of Prosthodontics, School of Dentistry, Faculty of Medical Sciences, University of Sulaimani, Sulaimani, Kurdistan Region, Iraq

Abstract

Background: Diseases of the lips are not minor to patients and they remain a challenge for dentists. Various lesions and conditions can affect the lips. They can be single or multiple, localized or diffuse, or associated with other systemic features. A good clinical examination will help to make a proper diagnosis.

Aim: The aim of this review is to attract the attention of dentists to the most important clinical features of different diseases involving the lips, as well as to help them recognize the relationship between lips and overall health, consequently providing the best management.

Methods: A systematic review was carried out to list all possible common conditions reported in the literature that affect the lips. These diseases were categorized according to their etiology into: dryness, scaling, injuries, inflammatory conditions, infections, precancerous lesions, tumors, and lip lesions related to systemic diseases, neurological conditions or developmental anomalies. At the end of each entity, a suggested therapy was mentioned.

Conclusion: Dentists need to concentrate on the various clinical aspects of the most commonly occurring lesions on the lips. They need to get full clinical information including symptoms, duration, and changes in the morphology and function of the lips besides the associated habits. A simple approach to diagnosis is based on the clinical features of lesions. Providing a better understanding and recognition of these features would favor a good diagnosis and suitable treatment plan.

Evaluation of depth of curve of Spee in a sample of Kurdish population in Sulaimani: “A cross sectional study”



Sara Jawad Azez BDS, Anwar Ahmad Amin BDS, CES-ODF, DUOPA (France)

College of Dentistry, University of Sulaimani.

Abstract

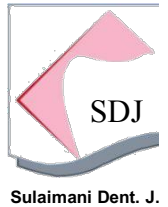
Background and objective: Curve of Spee (COS) is a normal anatomic curvature present in human dentition. This occlusal curvature has clinical importance in orthodontics and other fields of dentistry. There are no data about the mean curve of Spee in different malocclusion criteria or whether there is a difference between genders (Male and Female) and sides (right and left) in the Kurdish population in Iraq; therefore, this study aimed to evaluate and compare the depth of curve of Spee in class I, class II division 1, class II division 2, class II subdivision and class III., also to compare between genders and sides.

Materials and methods: A cross sectional study was conducted in the college of dentistry, University of Sulaimani and Peramerd special dental center in Sulaimani city, Iraq, from May (2016) to August (2016). A sample of 105 individuals was selected and according to the inclusion criteria was divided into the following five groups: Group A class I malocclusion (40 individuals), Group B class II division 1 malocclusion (19 individuals), Group C class II division 2 malocclusion (8 individuals), Group D class II subdivision (25 individuals), Group E class III (13 individuals). The depth of curve of Spee was measured as the perpendicular distance between the deepest cusp tip and a horizontal line drawn from the distobuccal cusp tip of the 2nd molar to the incisal edge of the anterior teeth in a lower dental study cast by using the AutoCAD software program. The measurements were taken on the right and left side and the mean value of these two measurements was used as depth of curve of Spee. The measurements were analyzed and statistically compared in SPSS version 19 by student "t" test ($p < 0.05$).

Results: Mean depth of curve of Spee in class I malocclusion (1.58) mm, in class II division 1 malocclusion mean depth was (2.13)mm, in class II division 2 mean depth was (2.54)mm, in class II subdivision malocclusion mean depth was(1.79)mm, and in Class III malocclusion mean depth was (0.93)mm . No statistically significant difference was found in the depth of curve of Spee between genders and sides.

Conclusions: The curve of Spee was deepest in class II division 2 malocclusion. Curve of Spee depth was not affected by sex or side.

Dental Treatment in Patients with scleroderma: A Case Presentation Report



Pinar Yaseen Raof, BDS, MSc, KRG Ministry of Health

Abstract

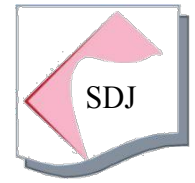
Objective: Scleroderma (progressive systemic sclerosis) is a chronic multisystem disorder causing thickness of the skin due to the accumulation of connective tissue. It has an intense effect on the oral conditions. This case report explains the main oral complications of scleroderma, and presents a treatment plan for a patient with this disease.

Materials and methods: A 45-year-old female patient presented with upper edentulous arch and complaining of xerostomia, difficulty in speaking and swallowing because of her rigid tongue, and limited mouth opening due to facial skin hardening, which gives a classic mask-like appearance. In light of all these oral problems, after history taking and examination the decision was made to construct an upper arch complete denture.

Results: after completion of the procedure and insertion of the denture, the patient was really satisfied with the result. Following a one year interval the patient was recalled and fortunately she was found to be satisfied with the treatment.

Conclusions: for the reason that progressive systemic sclerosis (PSS) has great impact on the oral conditions, patients with this disease should have special dental care and dentists should understand all the possible complications during the dental treatment.

Temporomandibular Joint Disorders (Review Paper)



Sulaimani Dent. J.

Prof. Dr. Shanaz Mohammad Gaphor BDS, MSc, PhD Oral Medicine

University of Sulaimani, College of Dentistry

Abstract

Background: Temporomandibular joint (TMJ) is a complex, sensitive, and highly mobile joint. Temporomandibular disorder (TMD) that has been recognized as a common orofacial pain condition. The term (TMD) refers to a group of disorders characterized by pain in the temporomandibular joint (TMJ), the periauricular area, or the muscles of mastication, TMJ noises (sounds) during mandibular function and deviations, or restriction in mandibular range of motion.

Aim: To identify disorders that mimic TMD and non-TMD disorders that may negatively impact on the patient's TMD symptoms.

Conclusions: Multifactorial etiology of TMD has led dentists to apply a wide range of differential diagnoses and reversal, conservative treatment. TMD is similar to musculoskeletal disorders in other parts of the body, and similar treatment can generally be used.

A Comparative Study among Shade Matching Systems

Nabeel Seryoka Martani B.D.S., Ph.D, Raid Fahim Salman B.D.S., Ph.D, Bassam Karem Amin B.D.S., Ph.D.

Abstract

Objectives: There is a little information from the literature about validity and accuracy of electronic shade matching. The aim of this comparative study was to assess the accuracy and repeatability of three shade matching methods and to examine the effect of three factors on the accuracy of the evaluation; the sex, the tooth position and the third of the tooth to be evaluated.

Methods: Three shade matching methods were used to match one hundred volunteer teeth shade under simulated clinical conditions using Classical shade guide: conventional visual shade matching (VM-Visual Method), photographic shade analysis system (PA- Photographic Analysis) and electronic shade matching (EM-Electronic Method). Shade matching for all methods was completed at two separate sessions for each evaluator at (day 0) and (day 3) as intra calibration factor. Two evaluators blinded to the parameters was executed the procedure to exclude the inter calibration factor. Three variables data were collected, studied and processed which were the sex of the volunteer, the position of the tooth examined whether anterior or posterior and the exact third of the tooth to be examined whether cervical, middle or occlusal. Pearson Correlation statistic was used to determine the intra-rater and inter-rater agreement.

Results: Intra-rater calibration revealed agreement; there was strong agreement between the visual and EasyShade methods while there was weak agreement between the visual and the digital photo and between the digital photo and EasyShade methods

Conclusion: Analysis based on signal detection theory provided an effective way of controlling for a subject's bias in reporting color differences. No significant difference between visual and EasyShade methods.

A 980nm Diode Laser Clot Formation of the Rabbit's Dental Sockets after Teeth Extraction



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Background: The aim of this research work is to evaluate the use of 980 nm diode laser in clotting the blood in the bone socket after tooth extraction. The objective is to prevent possible clot dislodgement which is a defect that may lead to possible infection.

Methods: A number of rabbits were irradiated using 980 nm continues (CW) mode diode laser, 0.86W power output for 9s and 15s exposure time. The irradiated groups were studied histologically in comparison with a control group.

Results: Showed that laser photothermal coagulation was of benefit in minimizing the possibility of the incidence of postoperative complications. The formation of the clot reduces the possibility of bleeding and infection.

Conclusion: Using 15s exposure time with an output power of 0.86W(76W/cm²) in CW mode of operation stimulate and facilitate bone healing process, in addition to the 980nm effect to coagulate the blood to provide dressing to the wound side. The use of laser for clotting blood in dental socket after tooth extraction gives encouraging results in particular is the absent thermal trauma to the underlying bone or any sign of delayed healing.

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