

Kingdom of Saudi Arabia
Ministry of Higher Education
Majmaah University



المملكة العربية السعودية
وزارة التعليم العالي
جامعة المجمعة

ملخص البحوث العلمية والكتب المنشورة لأعضاء الهيئة التدريسية في كلية طب الأسنان بجامعة المجمعة

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
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كلمة سعادة عميد كلية طب الأسنان



يقاس التقدم العلمي لأي أمة بقدرتها هذه الأمة على مسايرة العصر في الإلمام بكافة المعارف المنظمة والمتاحة عن الإنسان والكون والحياة وإجراء البحوث اللازمة لضمان اضطراد نموها وتقدمها، وعلى ذلك فإن مستوى التقدم العلمي للأمة يمثل المخزون المتاح لها من البحوث العلمية لمجتمعها في ذلك الوقت، وقدرة المجتمع فيها على توظيف هذا المخزون في عملياته التنموية الشاملة التي تحقق تقدم الحياة فيه بمستوى العصر وعلى ذلك يمكن القول أنه لا تنمية بدون بحث علمي ولا تقدم بدون العلم. إن نجاح الدول المتقدمة يعود إلى استيعاب الحقيقة الجوهرية من أن البحث العلمي هو أساس كل تقدم، لذلك تسعى جامعة المجمعة ممثلة بعمادة البحث العلمي ومن خلال جميع كلياتها ومنها كلية طب الأسنان إلى مواكبة مسيرة التطوير والتحديث بقيادة خادم الحرمين الشريفين، لإدراكها بأن الاهتمام بالبحث العلمي ومردوده يساعد المجتمع ليصبح قادرا على مواجهة تحديات العصر.

عميد كلية طب الأسنان

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	MAJMAAH JOURNAL OF HEALTH SCIENCE, Vol 2, Issue 2, 2014	A Proposed Easy-to-Use Classification of Mandibular Fractures.

Abstract: There are many classifications for mandibular fractures but all are not without complexity, making it difficult to use in emergency departments. A radiologist, maxillofacial surgeons and other clinicians feel problems in classifying these fractures. Researchers proposed many classifications to facilitate clinicians in describing these fractures. All these efforts remained unsuccessful as no such classification has been put forward. A comprehensive and easy to use classification is being proposed in this article. Objectives: 1. To analyze mandibular fractures on clinical and radiological bases. 2. To classify mandibular fractures on the basis of this analysis. Material & Methods: In this study we evaluated 2767 fracture lines in 1745 patients. The location and the number of fracture lines were analyzed. Results: The patterns of multiple mandibular fractures show the fracture of the body of the mandible on both side (b-b) occurred in 421 (24.1%) patients while fracture of the body of the mandible with condylar process fracture (b-c) occurred in 456 (26.1%) cases and numerous fractures hit 72 (4.1%) cases. Fractures of the body of the mandible with condylar process fractures on both sides (b-c-c) have occurred in 8 (0.5%) cases, while fractures of both side of the body of mandible with the condylar process (b-b-c) occurred in 5 (0.3%) cases. Conclusion: Easy-to-use classification of mandibular fractures have been proposed on the basis of finding of this study. Clinical relevance: FLIDOT is an easy word to remember and describing a mandibular fracture very conveniently as F stands for fracture type, L for fracture site, I for presence of infection, D for fracture dislocation, O for occlusal disturbances and T for presence of tooth in fracture line.

تاريخ النشر	وعاء النشر	عنوان البحث
2013	Majmaah journal of Health Sciences, 2013; vol.1 No 1.	Roach's type II variant of Sturge-Weber Syndrome: A case report.

Abstract: Sturge-Weber Syndrome also called as encephalotrigeminal angiomas is an uncommon condition that is characterized by hamartomatous vascular proliferation involving the tissues of the brain and face. It occurs due to persistence of vascular plexus around the cephalic portion of the neural tube. This

plexus develops during the sixth week of intrauterine life and usually regresses by the ninth week. The exact cause is unknown but a “2-hit hypothesis” which involves sporadic mutations as well as familial occurrences has been suggested as etiological basis. Most cases are sporadic but occasionally cases within families have also been reported. Males and females seem to be equally affected. It has been reported in individuals of White, Hispanic, African and Asian heritage.

Clinically, patients typically presents with constellation of signs and symptoms such as congenital facial Angiomas (Port Wine Stain/PWS), glaucoma, and variable neurologic manifestations including seizures, mental retardation, hemianopia, hemiparesis and learning difficulties. Patients may also have emotional problems, such as depression, low self-esteem, shame, emotional outbursts and isolation. The facial angioma is usually unilateral but may be bilateral. It typically involves at least the upper face, superior eyelid, or periorbital region.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Al Ameen J Med Sci 2014; 7(1) :40-44	Comparison of gap arthroplasty versus creating a pseudoarthrosis – modified technique for surgical management of temporomandibular joint ankylosis: a new approach.

Abstract: *Objectives:* To compare the postoperative results like vertical ramus height, vertical facial height, anterior open bite, unilateral cross bite and reankylosis in patients with TMJ ankylosis after doing gap arthroplasty versus creating a pseudoarthrosis by this modified technique. *Background:* This surgical study done on 10 patients with TMJ ankylosis were 5 patients had unilateral ankylosis and 5 had bilateral ankylosis. Pseudoarthrosis was created by this modified technique in all 10 patients. *Methods:* In this technique, a pseudoarthrosis is created by two oblique osteotomies and resection of triangular shaped bony wedge between the articular cavity and subcondylar region involving ankylotic bony mass and sub-ankylotic normal bone and a surgical gap is created without interposing any material with gap of 1cm anteriorly and gap height decreasing posteriorly resulting in pseudoarthrosis at posterior border without any loss of vertical ramus height. *Results and conclusion:* The postoperative results show that this new approach of creating a pseudoarthrosis is effective and convenient method of treating TMJ ankylosis and has many advantages over conventional gap arthroplasty.

تاريخ النشر	وعاء النشر	عنوان البحث
2014	MAJMAAH JOURNAL OF HEALTH SCIENCE, Vol 2, Issue 1, 2014	Assessment of Pre and Post dental treatment Anxiety among Saudi Arabian population

Abstract: Aim: To estimate the prevalence and associations of dental anxiety and to find out the methods to relieve anxiety in a sample of the Saudi Arabian population. **Material & Methods:** Four hundred subjects from Saudi Arabia of different age groups were evaluated by a questionnaire. **Results:** A majority of the subjects (80%) were accompanied by a friend or relative to the dental clinic. 70.5% of the subjects were anxious or afraid to go to a dental clinic but 76.7% of the subjects said that they were more relaxed after spending sometime in the clinic. The factors which relaxed them were presence of accompanying person and communication with the dentist whereas communication with other patients in the waiting area and the ambience of the clinic were not major factors. 32% of the subjects found that the treatment procedure during their first appointment was painful. Most of the patients found visit to a dental clinic was better than that to a general hospital. Most of the subjects (89.3%) responded that their overall experience about their first dental visit was good or fair and only 10.7% said that it was poor. 61.3% of the subjects were willing to go back to the same dentist. **Conclusion:** The prevalence of dental anxiety was high (70.5%). The apprehension seen towards dental treatment is based on misconceptions and fear of the unknown. My suggestion is to conduct awareness camps in localities and organize school trips to allay the fear of unknown.

ABSTRACT OF THESIS 1995

AN EVALUATION OF RESULTS OF TREATMENT OF MANDIBULAR FRACTURES

Medical University of Warsaw- Poland

This research Participated in the Jubilee Congress of the European Association
for Cranio-Maxillofacial Surgery 1996

Journal of Cranio-Maxillofacial Surgery, Churchill Livingston, vol. 24, 1996, 62-63.

<http://www.jcmfs.com/issues#>

The aim of the study was to evaluate the results obtained in 656 patients treated for mandibular fractures using three different methods. The work was based on the assumption that an effective and useful clinical technique is one which is associated with the lowest number of complications, is relatively straightforward technically and ensures a good final result to treatment. As a basis for the assessment, use was made of the number and type of complications found in 656 patients treated by three different methods. An analysis of clinical material and its statistical analysis allowed for the choice of such a method which is the most effective in mandibular fractures.

Aim of study :Our studies had the following aims:

- 1.To evaluate the results of treatment of 656 patients with mandibular fractures in The Department of Maxillofacial Surgery of the Warsaw Medical Academy during the years 1988-1992.
2. To evaluate clinical material and its statistical analysis and also to decide on the choice of such a method of treatment which is the most effective in mandibular fractures, i.e. has the least possible complications, ensures a quick and lasting return to health.

Material and Methods: Data from the years 1988-1992 (5 years) was used for the analysis of clinical material. The whole period of treatment was systematically updated starting from the first examination of the patient.

Results: In order to provide an answer to the fundamental question ; Which is the best method of treating mandibular fractures from among the commonly used methods ?; this being the aim of the study, we started from the assumption that an effective and clinically useful method can be acknowledged to be such that has the least complications, is relatively simple technically and ensures a morphologically functional and aesthetic result. From this we took the number and type of complications which occurred in 656 patients after being treated according to three different methods, as a baseline for assessing the results of treating mandibular fractures.

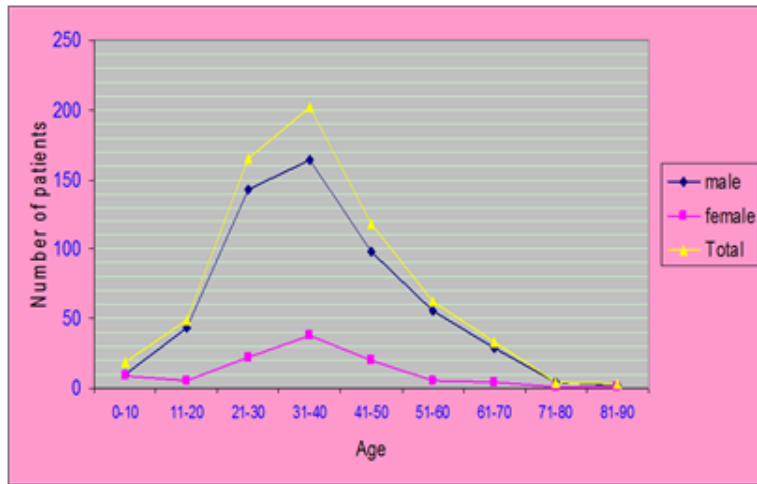


Fig. 1 Sex and age in 656 patients with mandibular fractures.

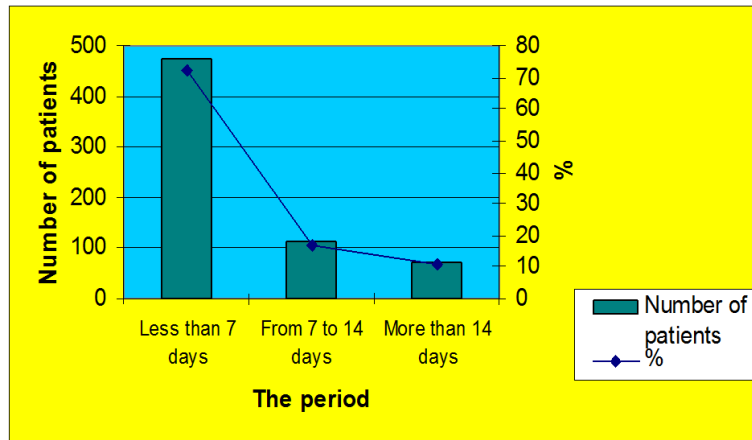


Fig. 2 The period between trauma and treating.

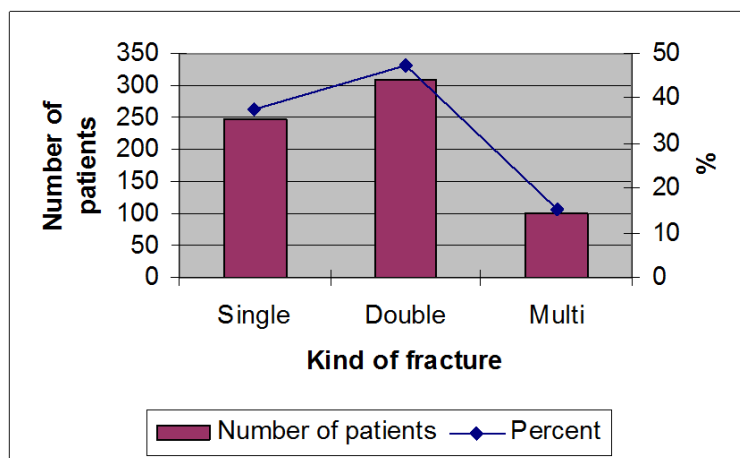


Fig. 3 Number and % of patients according the kind of fracture in 656 patients with mandibular fractures.

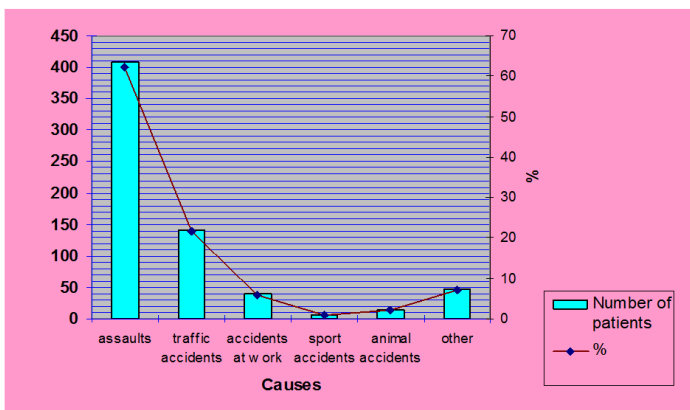


Fig. 4 Causes of mandibular fractures (in absolute number and % of total) in 656 patients treated between 1988-1992.

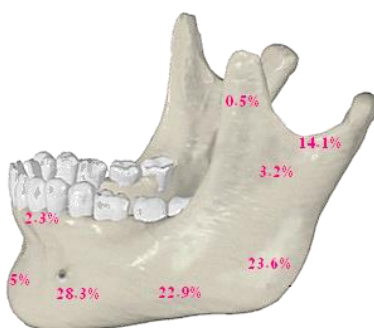


Fig. 5 Location of mandibular fracture line in 656 patients Treated between 1988-1992.

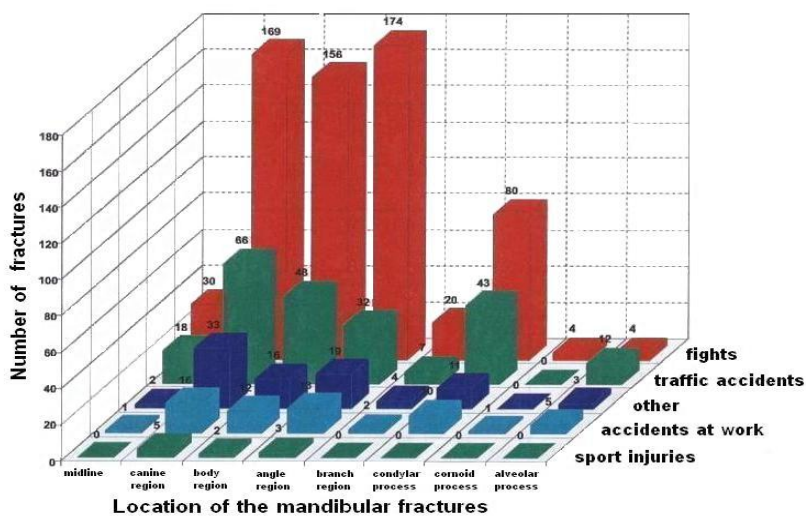


Fig. 6 Relationships between causes of trauma and the frequency of fractures in various anatomic sites of the mandible in 656 patients treated for mandibular fractures.

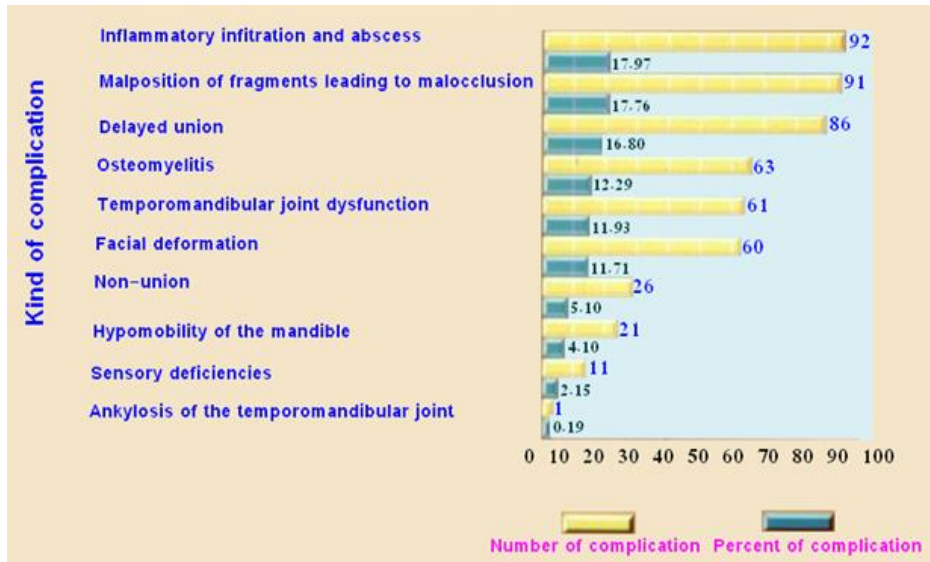


Fig. 11 Kind and number of complications recognized in 171 patients treated with three various methods.

Knowing the type and number of complications occurring after treatment of mandibular fractures in 171 patients, during the further stages we tried to establish if there exists a dependence between the treatment method used and the number and type of complications. We also tried to find out whether the number and type of complications, independent of the method used, can be affected such as: cause of injury, type of fracture, location of fracture, time elapsed from the time of injury to the initiation of treatment and also retained teeth in fracture line.

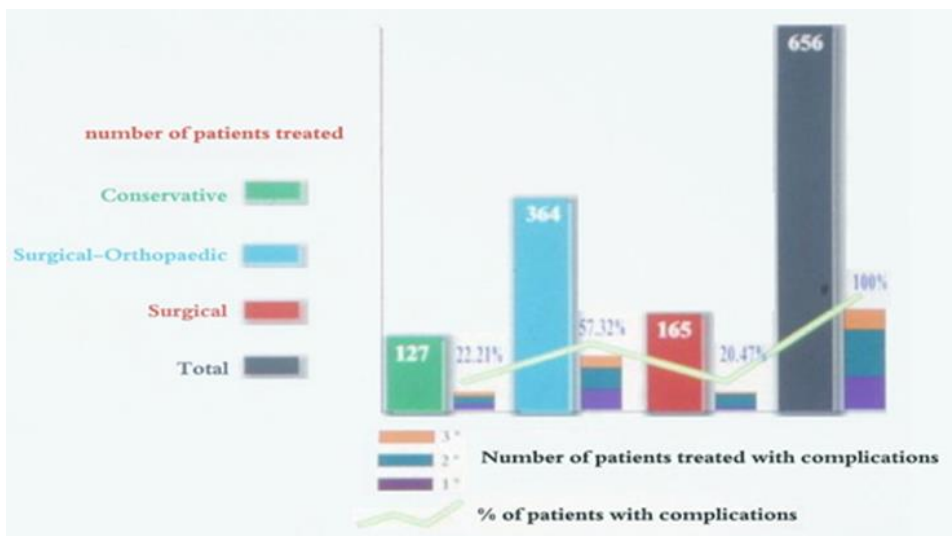


Fig. 12 Complexity of complications in degrees, evaluated in absolute numbers and percent of total in 171 of 656 patients receiving treatment by method of treatment.

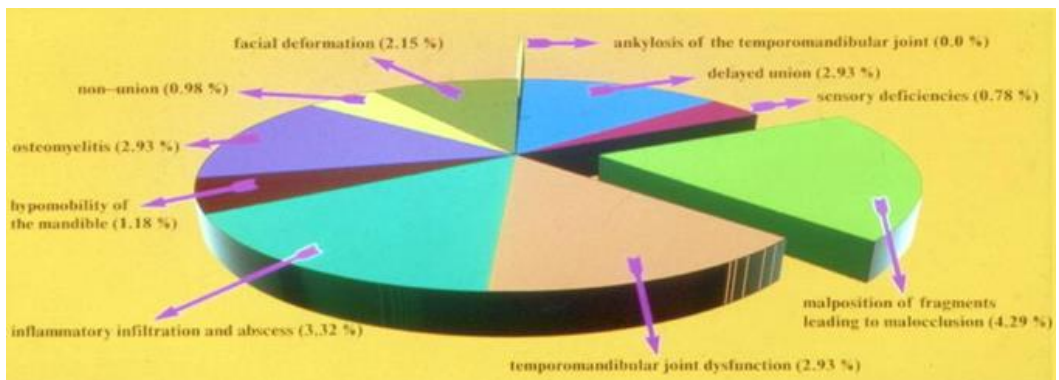


Fig. 13 Complications developed by 38 of 127 patients treated with the conservative methods as percent of the total number of complications recognized in 171 patients.

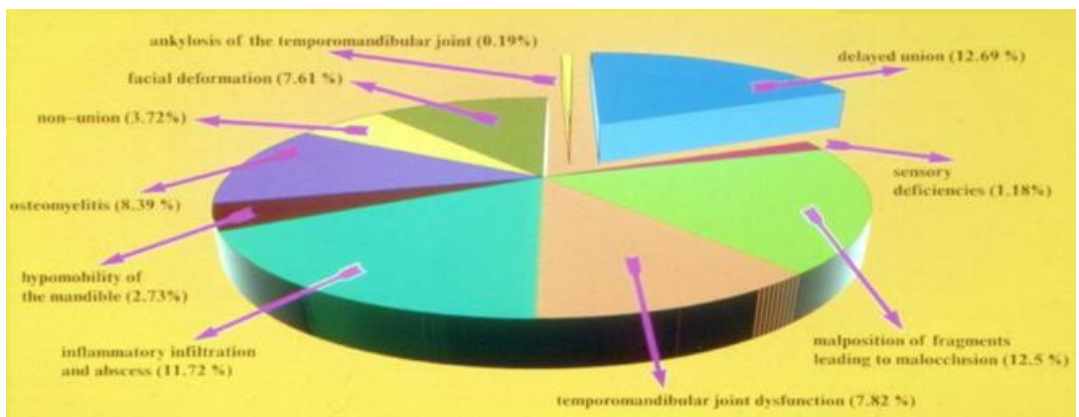


Fig. 14 Complications developed by 98 of 364 patients treated with the surgical-orthopedic methods as percent of the total number of complications recognized in 171 patients.

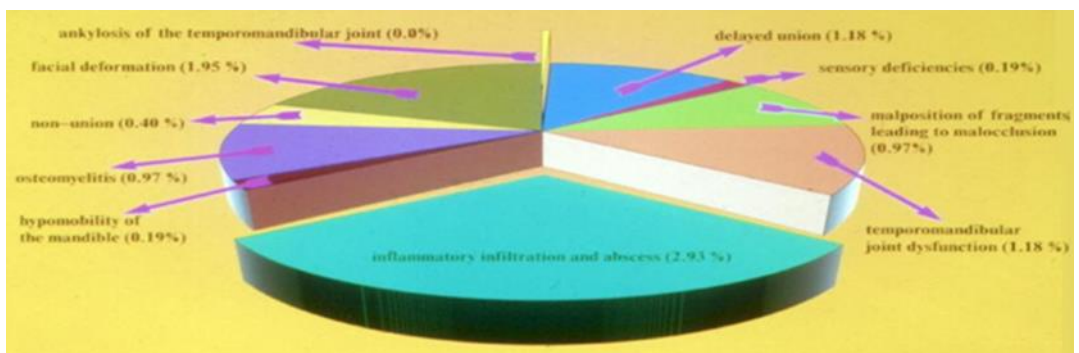


Fig. 15 Complications developed by 35 of 165 patients treated with the surgical methods as percent of the total number of complications recognized in 171 patients.



Fig. 16 Evaluation of complications in (in absolute numbers and percent of total) 165 of 656 patients receiving surgical treatment by the method applied and IMF.

We worked on the assumption that the treatment method that gives rise to more than one complication in a patients is both less effective and less useful in clinical practice. Also, in order to allow for further detailed analysis of the results obtained, it was decided to see if there is a dependence between the complexity of complications, the number of them in a patient and method used, also other factors.

Three nominal levels of complexity of complication in the group of 171 patients.

- 1°. 57 patients with one or two complications
- 2°. 80 patients who had 3 to 5 different postoperative complications
- 3°. 34 patients in whom were found 6 to 9 different complications.

Conclusions

1. Fractures of the mandible occur most commonly in young persons in the 21-30 and 31-40 age groups.
2. Amongst the cause of mandibular fractures in the first place are assaults and only further down the list traffic accidents and accidents at work.
3. The mandible most commonly fractures as a result of trauma in the regions of canine and premolar, angle and molars.
4. Amongst the three treatment methods evaluated, the most useful and most effective in treatment of mandibular fractures are surgical treatment.
5. From the clinical and statistical analysis it can be seen that the most effective method of treating mandibular fractures and the one that has the least number of complications and ensures good morphological-functional and aesthetic results is osteosynthesis using miniplates.
6. The use of intermaxillary fixation improves the result of surgical treatment (plates, miniplates).
7. The cause of injury does not have an influence on the results of treatment.

8. The type of fracture and its site have only a relative effect on the results of treatment.
9. The period of time elapsed from the time of injury to the commencement of specialist treatment has a statistically significant influence on the results of treatment. The later the treatment is started the more likely are complications to occur.
10. If a tooth is left in the line of fracture, then, irrespective of the treatment method used, the number of complications increases.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	MAJMAAH JOURNAL OF HEALTH SCIENCE, Vol 2, Issue 2, 2014	A Proposed Easy-to-Use Classification of Mandibular Fractures

Abstract: There are many classifications for mandibular fractures but all are not without complexity, making it difficult to use in emergency departments. A radiologist, maxillofacial surgeons and other clinicians feel problems in classifying these fractures. Researchers proposed many classifications to facilitate clinicians in describing these fractures. All these efforts remained an successful as no such classification has been put forward. A comprehensive and easy to use classification is being proposed in this article.

Objectives:

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2. To classify mandibular fractures on the basis of this analysis.

Material & Methods: In this study we evaluated 2767 fracture lines in 1745 patients. The location and the number of fracture lines were analyzed.

Results: The patterns of multiple mandibular fractures show the fracture of the body of the mandible on both side (b-b) occurred in 421 (24.1%) patients while fracture of the body of the mandible with condylar process fracture (b-c) occurred in 456 (26.1%) cases and numerous fractures hit 72 (4.1%) cases. Fractures of the body of the mandible with condylar process fractures on both sides (b-c-c) have occurred in 8 (0.5%) cases, while fractures of both side of the body of mandible with the condylar process (b-b-c) occurred in 5 (0.3%) cases.

Conclusion: Easy-to-use classification of mandibular fractures have been proposed on the basis of finding of this study.

Clinical relevance: FLIDOT is an easy word to remember and describing a mandibular fracture very conveniently as F stands for fracture type, L for fracture site, I for presence of infection, D for fracture dislocation, O for occlusal disturbances and T for presence of tooth in fracture line.

تاريخ النشر	الناشر	عنوان الكتاب
2012	Al-Farabi College publications Riyadh KSA	Guidelines in infection control. (Arabic – English) مكافحة العدوى في عيادات طب الأسنان 

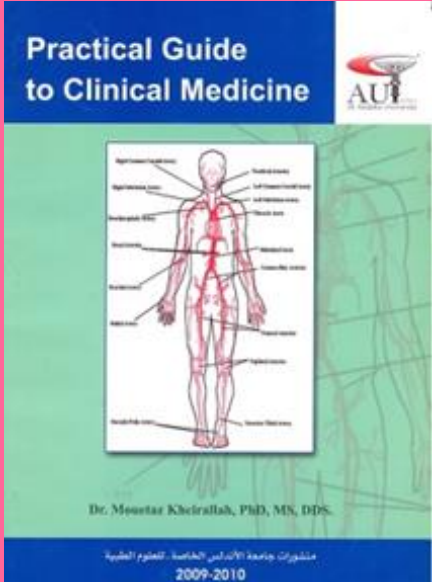
Preface: Infection control is the most important practices in dental clinics, because of the exposure of patients and staff in dental clinics to many germs and viruses that are transmitted by blood and secretions of the mouth and respiratory tract, such as hepatitis and HIV, and microbes like tuberculosis, staphylococcus and streptococcus, etc. Proceeding from the keenness of Al-Farabi Colleges to keep up with the march of development and modernization of the bodies of the Medical Academy in Saudi Arabia , it was necessary to establish a unit specializing in infection control which bother to achieve all international standards for the prevention of infection, monitor and follow up the application of policies and procedures in all facilities of Al-Farabi Colleges. This book provide for the student and the worker as a reminder of the most important principles that must be adhered for the prevention of infection.

تاريخ النشر	الناشر	عنوان الكتاب
2011	Al-Kochaji for publishing دار القوشجي للنشر دمشق- سوريا ISBN 978-9933-455-04-0	Exodontia & Local Anesthesia التخدير والقلع في طب الأسنان 

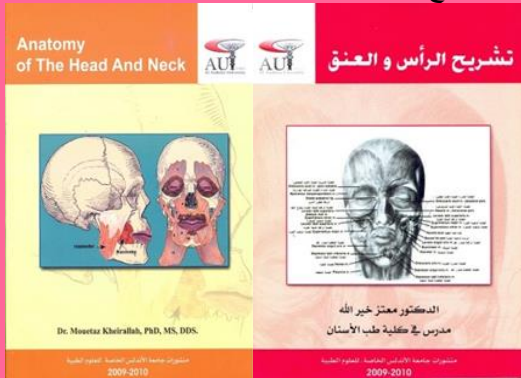
Preface: Since many centuries, oral surgery became one of the important medical specialization, has regulations, rules, and foundations, linked to basic sciences, physiology, and other sciences.

The book reviews the descriptive anatomy of the jaws , oral cavity, functions of nervous system, methods of pain control, methods of local anesthesia , regional blocks, and properties of anesthetic agents used in general and local anesthesia . It also provided with more than 130 illustrations in form and image making it easy to understand all the provisions contained. The author hired with large number of the competent foreign and Arabic references to be a reference book for dentist and for dental student. In addition to theoretical side it covers practical aspects encountered by the dentist in his career. As you can find in this book all the information that will help you in assessing a patient, before tooth extraction, indications, contraindications, methods and complications of exodontia, general diseases and their relation to exodontia, and ways of dealing with certain diseases such as heart diseases and diabetes. It is simplified, collector, and plain.

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تاريخ النشر	الناشر	عنوان الكتاب
2009	Alandalos university for medical sciences publications Qadmous-Syria	<p>Practical Guide to Clinical Medicine. A comprehensive physical examination and clinical education for dental students (English)</p>  <p>Dr. Moustaf Kheirallah, PhD, MN, DDS.</p> <p>مطبوعات جامعة الأندلس الطبية - القدموس - سورية 2009-2010</p>

Preface: This book has been published for Dental students at Alandalos University to be as practical guide to clinical medicine, clinical education and qualify for physical examination. The aim kept in view in the preparation of this book to put the dental students in possession of clear directions for ordinary duties of medical practice.

تاريخ النشر	الناشر	عنوان الكتاب
2009	Alandalos University for Medical Sciences publications Qadmous-Syria	<p>Anatomy of the head and neck. Practice practical for students at the Faculty of Dentistry (English-Arabic) تشريح الرأس والعنق لطلاب كلية طب الأسنان</p> 

Preface: This book is designed to meet all the needs of dental students. It is printed in Arabic and English for Arabic students to understand the anatomical terms and to coordinate with other courses. It explains anatomical structures which is essential for dental students. It provides complete coverage of head and neck anatomy, as well as on the TMJ, the spread of dental infection, and anatomical elements relations to local anesthesia. Illustrations included throughout the text help to clarify essential concepts. All chapters have been chosen to be relevant to the present needs of dental professional. At the end of this book is the glossary of anatomical structure terms.

تاريخ النشر	الناشر	عنوان الكتاب
2008	Alandalos University for Medical Sciences publications Qadmous-Syria	<p>Radiology in dentistry (Arabic) علم الأشعة في طب الأسنان</p> 

Preface: Since the discovery of X-rays, it has become the primary diagnostic mean in all medical specialties, including dentistry. It is a basic mean for appropriate treatment plan. This book contains large amount of useful information for the dentist and all those interested in the science of radiology. It consists of 19 chapters, physics of radiation, the principles of diagnostic radiographic techniques, radiological appearances of natural teeth and jaws, infections, dental disease, developmental diseases, cysts, oral tumors, salivary glands, TMJ, biological effects of radiation and prevention.

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تاريخ النشر	الناشر	عنوان الكتاب
2008	Alandalos University for Medical Sciences publications Qadmous-Syria	<p>Minor Surgery and Surgical Diseases (Arabic) الجراحة الصغرى والأمراض الجراحية</p>  <p>الجراحة الصغرى والأمراض الجراحية</p> <p>الدكتور مانتصر حجار الله مدرس في عيادة طب الأسنان</p> <p>مستوى عال من التخصص في العلوم الطبية 2009-2010</p>

Preface: The book have been printed by Alandalos University for medical sciences (Syria, Qadmous) to be an Arabic reference for dental students during the academic year 2009-2010. The aim kept in view in the preparation of this book to put the dental students in possession of clear directions for ordinary duties of medical practice and to qualify them for emergency conditions. This book provides description of activities during first aid, an armamentarium using in minor surgery, clinical signs of common surgical diseases and diagnostic procedures.

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تاريخ النشر	وعاء النشر	عنوان البحث
2008	Pediatric Syrian Association Journal, 1, October 2008. 40.	The relationship between Ankyloglossia and Children Speech.

Abstract: Ankyloglossia is a clinical case that can be encountered in Pediatrics clinics and detected by pediatrician at a venture. It is known that this clinical case

has a significant effect on the functions of the tongue, especially in severe forms, it is a negative impact on the process of pronunciation due to functional disorders caused by movements of the tongue tied. These disorders can leave a long-term impact on the child, his development and relationship with society. Hence the importance of surgical intervention to modify this deviation to enable anatomical structure of the tongue to perform its role in the process of speech and other vital functions entrusted to it. This Article discusses the effects of tongue tied on pronunciation process , the methods used to assess , methods of treatment and instructions necessary when dealing with this case.

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تاريخ النشر	وعاء النشر	عنوان البحث
2008	The Syrian Journal of Stomatology, 1, 2008, 7.	Emergency cases of Hypoglycaemia in Dental Practice

Abstract: Frequently the patients with general diseases visit the dental practice. One of these diseases is the diabetes. A dentist should understand diabetes in order to prepare this kind of patients, especially if the purpose of the treatment is surgical or relating to the periodontal diseases. Visiting a dentist may cause more effects of the disease, more ever it may increase the infection to the patients whose under control or not. A dentist should consult the physician of the patient of diabetes because of weak immunity with those patients. It is necessary to treat these patients under covering of Antibiotic. In this article make attention to the most popular symptoms of Hypoglycemia and the differential diagnosis of it, in addition to the procedures which can be applied to those patients before or during the oral treatment in the dental practice.

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تاريخ النشر	وعاء النشر	عنوان البحث
2007	The Syrian Journal of Stomatology, 3-4/2007, 7.	The anatomical architecture of craniofacial skeleton and its role in the facial fracture.

Abstract: The facial skeleton has characteristic features can be explained as adaptations to resist stresses generated by the muscles. However, the nature of the stresses and the mechanical adaptations to counter them are estimated differently. The face designed as a biomechanical light-weight structure with thin

walled cavities. It is composed of osseous cavities and forceful trajectories, which in turn convey great, static, compressive forces to the stable skull base. Force dispersion occurs via prominent vertical, horizontal, and sagittal osseous trajectories. This anatomical construction is of relevance when considering injuries to the facial regions. As a result of its special construction, the comparatively thin walled can absorb the injury to the neurocranium in facial injuries. This article discus the major stress trajectories of the facial bone and its relationship to the facial trauma.

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تاريخ النشر	وعاء النشر	عنوان البحث
1995	Czas. stom. 1995, XLVIII, 8.	The clinical effectiveness of selected materials and their effects on resistance to dentine hypersensitivity of dental Cervix.

Abstract: On the basis of literature selected materials and their effectiveness on the resistance to dentine hypersensitivity are discussed. Particular attention is paid to physical methods, the role of chemicals and physic-chemical methods. The procedures in patients with dentine hypersensitivity are also discussed.

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تاريخ النشر	وعاء النشر	عنوان البحث
1995	Czas. Stom.,1995, XLVIII,7.	Contemporary Concepts of the pathogenic mechanisms causing cervical hypersensitivity of the teeth.

Abstract: This article presents, on the basis of the literature, the scientific achievements from the fields of epidemiology, etiology and selected theories regarding the initiation of dentinal hypersensitivity. Particular attention is paid to the theory of nerve endings, the hydrodynamic theory, the theory of energy exchange, the theory of modulation and the theory of pain receptor control and vibration in causing dentinal hypersensitivity.

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تاريخ النشر	وعاء النشر	عنوان البحث
1994	Czasopism. Stom.,1994, XLVII, 2, 123-129.	The epidemiological analysis of mandibular fractures in the material of I Department of Maxillofacial Surgery of Warsaw University in the years 1988-1992.

Abstract: During five years, from 1988 to 1992, in the Department of Maxillofacial surgery, 656 patients with mandibular fractures have been treated. To the epidemical analysis, a special statistic cards were prepared which completed systematically during treatment time.

Among patients in majority on the first place were men (89.5%), young people in 21-40 group of age. In the etiology on the first place were aggression (62.2%) then traffic accidents (21.6%) and then work accidents (5.6%, injury from animals (2.1%). Altogether 1021 mandibular fractures were find at 656 patients.

The most often localization of fractures were; premolar area (28.4%), mandibular angle (23.6%) and molar area (22.9%).

In 20.9% of patients contemporaneous fractures of upper facial part were observed. In conclusion the article suggests that aggression, traffic accidents and alcohol drinking are the main etiological causes of mandibular fractures.

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تاريخ النشر	وعاء النشر	عنوان البحث
1993	Czasopismo stom., XLVI, ZG, PTS,1993.	Diagnostic mistake in sialoadenitid ET sialoliasis submandibular gland diagnosis.

Abstract: This article presents, case of the submandibular salivary gland acute inflammation, caused by foreign body (salivary stones) in the submandibular salivary gland duct.

ABSTRACT OF THESIS 2006

“TRACING DISEASE GENE(S) IN NON-SYNDROMIC CLEFTS OF OROFACIAL REGION: AN ANALYSIS INTO THE NATURE OF THE GENETIC DEFECT”

THE UNIVERSITY OF KERALA

MASTER OF DENTAL SURGERY

Abstract: Objectives: Orofacial clefts are major human birth defects with complex etiology. Previous studies have proposed Transforming growth factor - beta 3 (TGF- β 3) gene and HLA region as a key player in contributing to non-syndromic cleft lip and palate, however none of the studies have yet included Indian population. Hence this study was designed to detect TGF-beta 3 gene polymorphism and *HLA* microsatellites in nonsyndromic cleft lip and palate patients from Indian population which is genetically distinct from previously studied populations. **Study Design:** Peripheral blood samples of forty non-syndromic cleft lip and palate patients and forty unaffected individuals were collected for a case – control study design. Ethical clearance from the institutional review board and informed consent from all subjects was obtained. DNA extracted from the cases and controls was amplified using polymerase chain reaction (PCR) with TGF-beta 3 specific primers. The obtained fragments were sequenced and TGF-beta 3 gene polymorphisms was assessed based on the number of CA repeats. Four microsatellites were compared in this case-control study for HLA association. **Results & Conclusion:** Chi –square test was used to compare the case and control groups. Results showed a significant difference in the number of CA repeats between the case and the control group ($p=0.01$). Four microsatellites were compared in this case-control study. C1_2_5 locus was the most polymorphic marker with 15 observed alleles while C1_4_1 had the least number of alleles. Three of the four markers viz MIB,C1_4_1 and C1_2_5 showed a significant association of microsatellite alleles with CL/P. Five alleles (MIB_326,332,350; C1_4_1 - 213 and C1_2_5-204) were seen with an increased frequency among the test samples, whereas two alleles (C1-4_1_217, and C1_2_5_196) had an increased frequency among the control samples. One allele (C1-4-1-209) had an increased frequency in patient group but was not observed in the controls. This study confirms the crucial role of TGF- beta 3 in the fusion of palatal shelves during development and further, provides novel evidence of TGF-beta 3 gene polymorphism in the etiology of nonsyndromic cleft lip and palate in Indian subpopulation. The result of this study shows that a few alleles have an increased frequency of expression in the diseased group which suggests that these alleles

may predispose the individuals to clefting. This finding may be beneficial to aid in early diagnosis and plan intervention strategies.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Majmaah journal of Health Sciences, 2013; vol.1 No 1.	Roach's type II variant of Sturge-Weber Syndrome: A case report.

Abstract: Sturge-Weber Syndrome also called as encephalotrigeminal angiomatosis is an uncommon condition that is characterized by hamartomatous vascular proliferation involving the tissues of the brain and face. It occurs due to persistence of vascular plexus around the cephalic portion of the neural tube. This plexus develops during the sixth week of intrauterine life and usually regresses by the ninth week. The exact cause is unknown but a "2-hit hypothesis" which involves sporadic mutations as well as familial occurrences has been suggested as etiological basis. Most cases are sporadic but occasionally cases within families have also been reported. Males and females seem to be equally affected. It has been reported in individuals of White, Hispanic, African and Asian heritage. Clinically, patients typically presents with constellation of signs and symptoms such as congenital facial Angiomas (Port Wine Stain/PWS), glaucoma, and variable neurologic manifestations including seizures, mental retardation, hemianopia, hemiparesis and learning difficulties. Patients may also have emotional problems, such as depression, low self-esteem, shame, emotional outbursts and isolation. The facial angioma is usually unilateral but may be bilateral. It typically involves at least the upper face, superior eyelid, or periorbital region.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Anna.P. J Medicina Oral Patología Oral Cirugía Bucal– 2012; vol 17 issue 2	Non syndromic cleft lip and palate: Evidence of Transforming growth factor - beta3 gene polymorphism in Indian patients.

Abstract: Objectives: Orofacial clefts are major human birth defects with complex etiology. Previous studies have proposed Transforming growth factor - beta 3 (TGF-β3) gene as a key player in contributing to non-syndromic cleft lip and palate, however none of the studies have yet included Indian population. Hence this study was designed to detect TGF-beta 3 gene polymorphism in nonsyndromic cleft lip

and palate patients from Indian population which is genetically distinct from previously studied populations. **Study Design:** Peripheral blood samples of forty non-syndromic cleft lip and palate patients and forty unaffected individuals were collected for a case – control study design. Ethical clearance from the institutional review board and informed consent from all subjects was obtained. DNA extracted from the cases and controls was amplified using polymerase chain reaction (PCR) with TGF-beta 3 specific primers. The obtained fragments were sequenced and TGF-beta 3 gene polymorphisms was assessed based on the number of CA repeats. **Results & Conclusion:** Chi –square test was used to compare the case and control groups. Results showed a significant difference in the number of CA repeats between the case and the control group ($p=0.01$). This study confirms the crucial role of TGF- beta 3 in the fusion of palatal shelves during development and further, provides novel evidence of TGF-beta 3 gene polymorphism in the etiology of nonsyndromic cleft lip and palate in Indian subpopulation.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Anil S. Indian Journal of Human Genetics 2011;17:188-93.	Tracing disease gene(s) in non-syndromic clefts of orofacial region: HLA haplotypic linkage by analyzing the microsatellite markers: MIB, C1_2_5, C1_4_1, and C1_2_A.

Abstract: Background: Cleft lip with or without cleft palate (CL/P) is the most frequent craniofacial malformation seen in man. The etiology of CL/P is complex involving both genetic and epigenetic (environmental) factors, and the genes play an almost deterministic role in the normal development of craniofacial structures. This study was aimed at ascertaining the association of *HLA* microsatellites in CL/P patients. **Materials and Methods :** Case DNA was obtained from 76 patients (40M and 36 F, average age 7.8 years, range 1-16 years). Unaffected individuals from the same geographical area without population mixing included as controls (n=154, 76 M and 78 F, average age 8.2 years, range 2-17 years). All DNA samples were purified from peripheral blood by standard techniques. **Results:** Four microsatellites were compared in this case-control study. C1_2_5 locus was the most polymorphic marker with 15 observed alleles while C1_4_1 had the least number of alleles. Three of the four markers viz MIB, C1_4_1 and C1_2_5 showed a significant association of microsatellite alleles with CL/P. Five alleles (MIB_326,332,350; C1_4_1 - 213 and C1_2_5-204) were seen with an increased frequency among the test samples, whereas two alleles (C1-4_1_217, and C1_2_5_196) had an increased frequency among the control samples. One allele

(C1-4-1-209) had an increased frequency in patient group but was not observed in the controls. **Conclusion :** The role of *HLA* complex in the pathogenesis of CL/P is speculative and has not been established so far. The result of this study shows that a few alleles have an increased frequency of expression in the diseased group which suggests that these alleles may predispose the individuals to clefting. This finding may be beneficial to aid in early diagnosis and plan intervention strategies.

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تاريخ النشر	وعاء النشر	عنوان البحث
2006	Indian Journal of Dental Research 2006; vol 17; 190-198.	Pentoxifylline therapy: A new adjunct in the Treatment of Oral Submucous Fibrosis.

Abstract: OBJECTIVE: This study was designed to determine the effect of pentoxifylline (Trental) on the clinical and pathologic course of oral submucous fibrosis. This drug is a methylxanthine derivative that has vasodilation properties and was envisaged to increase mucosal vascularity. STUDY DESIGN : This investigation was conducted as a randomized clinical trial incorporating a control group (Standard drug group SDG, multivitamin, and local heat therapy) in comparison to pentoxifylline test cases (Experimental drug group EDG, 400mg 3 times daily, as coated, sustained release tablets). The stipulated treatment period was 7 months and a total of 29 cases of advanced fibrosis (14 test subjects and 15 age and sex matched diseased controls) were included in this study and 100% compliance was reported at the end of the test period. RESULTS : Mild gastric irritation that could be managed by diet protocols was the only untoward symptom reported during this trial. Review of the patients and controls was done at an interval of 30 days and subjective and objective measurements were recorded. The follow up data at each visit with respect to each other and to base-line values was calibrated using a nonparametric test of Mann-Whitney (Kruskal-Wallis test). Significant comparisons with regard to improvement were recorded as objective criteria of mouth opening ($t=11.285$, $p= 0.000$), tongue protrusion ($t= 3.898$, $p = 0.002$), and relief from perioral fibrotic bands ($p = 0.0001554$). Subjective symptoms of intolerance to spices ($p = 0.0063218$), burning sensation of mouth ($p = 0.0005797$), tinnitus ($p=0.000042$), difficulty in swallowing ($p=0.0000714$). and difficulty in speech ($p=0.0000020$) were also recorded significant improvement at the end of the trial period. CONCLUSION : This pilot investigation points to the effectiveness of pentoxifylline as an adjunct therapy in the routine management of oral submucous fibrosis.

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تاريخ النشر	وعاء النشر	عنوان البحث
2006	Indian Journal of Dental Research 2006; vol 17(4); 161 – 166.	Expression of Matrix metalloproteinases (MMP-1, MMP-2 & MMP-9) and their tissue inhibitors (TIMP-1 & TIMP-2) in Oral Submucous Fibrosis.

Abstract: Immunohistochemical staining of formalin fixed, paraffin embedded tissue sections of OSF for MMPs-1,2,9 and their tissue inhibitors TIMP-1and 2 was performed using monospecific antibodies coupled with gelatin zymography (MMP-2 and 9) for measuring enzymatic activity quantitatively and for distinguishing the active from the inactive variants of enzymes. The present study, contrary to earlier reports, recorded statistically significant increase in the levels of stromal expression of MMP-1, MMP-2 and MMP-9 and TIMP-1 and TIMP-2 using monospecific antibodies reacting against tissue antigens. The simultaneous increase in reactivity of MMPs and TIMPs pose difficulty in interpreting the results of this study. The possible reasons for this result, against the backdrop of existing knowledge, were attempted in this study.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	International Journal of Contemporary Dentistry 2010; vol 1(3); 60 – 67	Comparative assessment of efficacy of single application of dipotassium oxalate, Potassium nitrate and sodium fluoride with iontophoresis in the treatment of hypersensitive teeth: An in-vitro and in-vivo study.

Abstract: The purpose of this study was to compare the efficacy of dipotassium oxalate, potassium nitrate and sodium fluoride with iontophoresis in treating hypersensitivity. Materials and Methods: This short term clinical study was carried out on 45 teeth from 15 patients from the out-patient section of Department of Periodontics. Three teeth were selected per patients. The selected patients were divided into three groups. Group I: Application of 30% dipotassium oxalate for 1 min with a cotton pallet. Group II: Application of 5% potassium nitrate for 1 min with cotton pallet. Group III: Application of 2% sodium fluoride with iontophoresis. Patients were randomly selected which include males and females between 18 to 55 years of age. Scaling was done one week prior to treatment. The entire patients were instructed not to use any other desensitizing agent during the study. Assessment of pre and post treatment hypersensitivity was done by objective (electric and mechanical stimulation) and subjective analysis (visual analog scale).

Severity of sensitivity was assessed before application, immediately after application, and later on at weekly intervals for 6 weeks. As a part of an in vitro study, a total of 15 teeth, 5 teeth per group were selected from patients with sensitivity, whose teeth were indicated for extraction due to advanced periodontal disease. Data was analyzed using student's unpaired t-test (2 tailed), Results: It showed that comparison between group I and III, II and III were highly statistically significant throughout the 6 weeks ($P < .01$), whereas group I and II were statistically significant. Conclusion: This study demonstrated that was a drastic reduction in dentinal hypersensitivity when iontophoresis with 2% sodium fluoride was applied and thus can be concluded that clinically, single application of iontophoresis with 2% sodium fluoride could prove to be a better therapeutic agent in comparison with 30% dipotassium oxalate and 5% potassium nitrate agents.

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تاريخ النشر	وعاء النشر	عنوان البحث
2005	Asian Journal of Oral Maxillofacial Surgery 2005, vol 17; 280-283	Orofacial sarcoidosis.

Abstract: Sarcoidosis is a multisystem granulomatous disorder of unknown etiology characterized by non-caseating epithelioid granulomas that may affect any organ system. Intraoral presentations of sarcoidosis are uncommon, and sarcoidosis of the tongue is particularly rare. This report is of a patient with sarcoidosis with Intraoral lesions in the tongue and floor of the mouth, and perioral granulomas without any systemic involvement.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Indian Journal of Dental Sciences, March 2013 Issue:1 Vol.:5.	Nanosystems: Role In Oncology - An Overview.

Abstract: Desmoplastic ameloblastoma is an unusual type of ameloblastoma with special histologic and radiographic features and anatomic distribution which differs from those in the classic type of ameloblastoma. The aim of this study is to facilitate better understanding of this rare and unusual variant of ameloblastoma. We present a patient with desmoplastic variant of ameloblastoma localized in the anterior portion of the mandible. The tumour was expansible and painless. The radiographic finding showed an ill-defined mixed (radiopaque/radiolucent) lesion involving bilaterally and causing displacement and resorption of canines of both

the sides. Marginal resection was performed. Follow-up examination one year later revealed no recurrence of the tumour. Desmoplastic variant of ameloblastoma tends to infiltrate between bone trabeculae. Curettage leaves islands of the tumour within bone, which later manifest as recurrences. Therefore, for big lesions in bloc excision is the most widely used treatment to avoid recurrence.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Indian Journal of Dental Sciences, March 2013 Issue:1 Vol.:5.	Nanosystems: Role In Oncology - An Overview.

Abstract: Nanotechnology is the creation and utilization of materials, devices and systems through the control of matter on the nanometer-length scale, that is, at the level of atoms, molecules and supramolecular structures. Given the inherent nanoscale functional of living cells, it was inevitable that nanotechnology would be applied in biological settings, giving rise to the term nanobiotechnology; that is, the application of nanotechnology in the life sciences. Nanobiotechnology is also being applied to refine surgery from microsurgery to nanosurgery. During the past few years, considerable progress has been made in the application of nanobiotechnology in cancer, that is, nano-oncology, which is currently the most important chapter of nanomedicine. Nanobiotechnology plays an important role in the discovery of biomarkers of cancer. Several drugs in development for cancer are based on nanobiotechnology, and a few of these are already approved. Nanobiotechnology-based devices are in development as aids to cancer surgery. Finally, nanobiotechnology is playing an important role in personalized therapy for cancer.

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ABSTRACT OF THESIS 2008

Estimation Of Serum Iron And Serum Copper In Oral Precancer, Oral Cancer And Normal Individuals - A Comparative Study.
RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES, BANGALORE, KARNATAKA STATE, INDIA

ABSTRACT: Oral cancer the sixth most common cancer worldwide continues to be the most prevalent cancer related to the consumption of tobacco, alcohol and other carcinogenic products. The development of oral cancer is a multistep process arising from pre- existing potentially malignant lesions. The rate at which oral premalignant lesions and conditions are spreading is alarming. A study was conducted to estimate and compare the serum iron and copper levels among oral precancer, cancer and normal subjects. Statistical analysis of the data so obtained reveal a significant variation in serum iron and copper levels in oral precancerous and cancerous subjects and these biological markers may be associated with the pathogenesis of oral premalignant and malignant lesions and their progression. It can be suggested that biochemical assessment of oral precancerous and cancerous patients may help in earlier diagnosis and/or prognosis of these lesions. This may also serve in predicting malignant potential of the premalignant lesions and conditions. In turn this lays down a tremendous responsibility on the shoulders of oral physicians for regular screening and early detection of these diseases which can in turn enhance the health and well-being of the population as a whole.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	E Journal of dentistry 2012; 2(2): 159-165	Oral submucous fibrosis and iron deficiency anemia relationship revisited-results from an Indian study.

Abstract: Objectives: To estimate the levels of serum iron and hemoglobin in cases of oral submucous fibrosis. (OSMF) and comparing the values with that of healthy subjects and further with the values of the patients diagnosed with iron deficiency anemia. Materials and methods: 20 patients clinically diagnosed with OSMF and confirmed histopathologically without any other systemic disease constituted the study group. This group was further divided into Stages I and II as per the staging given by Pindborg. 10 age and sex matched healthy subjects constituted the control group. Ten more subjects with iron deficiency anemia without any history

of areca nut chewing and matched for age and sex constituted the anemic group. Hemoglobin and serum iron levels were estimated by Sahli's and Ferrene methods respectively. Results and conclusions: The OSMF group showed significantly lower levels of hemoglobin and serum iron in comparison with the healthy control group. On comparison between anemic and OSMF group, hemoglobin level was lower in anemic group but the serum iron level was significantly lower in the OSMF group. Further the values of serum iron as well as hemoglobin displayed a greater reduction in Stage II when compared with Stage I OSMF. The above results establish the fact that serum iron level is an important marker for OSMF the levels of which could be used to predict the prognosis and progression of the condition to malignancy with greater accuracy.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Imaging Science in Dentistry 2011; 41(4):177-181	Pyknodysostosis: A rare case report with review of literature

Abstract: Pyknodysostosis is a rare autosomal recessive disorder characterized by the post natal onset of short limbs, short stature, and generalized hyperostosis along with acro-osteolysis with sclerosis of the terminal phalanges, a feature that is considered essentially pathognomonic. Other features include persistence of fontanelles, delayed closure of sutures, wormian bones, absence of frontal sinuses, and obtuse mandibular genial angle with relative mandibular prognathism. We report a case of 17-year-old girl who presented with a chief complaint of retention of deciduous teeth. General physical examination demonstrated short stature, frontal and parietal bossing, depressed nasal bridge, beaked nose, hypoplastic midface, wrinkled skin over the finger tips, and nail abnormalities. Radiographs showed multiple impacted permanent and supernumerary teeth, hypoplastic paranasal sinuses with acro-osteolysis of terminal phalanges, and open fontanelles, and sutures along with wormian bones in the lambdoidal region.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	International Journal of Odontostomatology 2012; 6 (1):97-103.	Mural Unicystic Ameloblastoma crossing the midline: A rare case report.

Abstract: Ameloblastoma is a benign odontogenic neoplasm which frequently affects the mandible. The term ameloblastoma includes several clinico-radiological

and histological types. Apart from the most commonly encountered clinico-pathologic models there are few variants, whose biological profile is unknown or not elicited. The reason for lack of understanding is the scarcity of case report published in the literature. Among the types, unicystic ameloblastoma is the least encountered either it presents as unilocular or multilocular radiolucency, but peculiar radiographic presentation of multilocular radiolucency in posterior mandible with unilocular radiographic appearance crossing the midline is extremely rare, which has not been reported yet. Here we report a distinctive case of mural unicystic ameloblastoma of mandible in a 17-year- old- girl with the radiographic presentation as mentioned above.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	E Journal of dentistry 2012; 2(1): 129-132.	Neurofibromatosis Type I with oral manifestations.

Abstract: Neurofibromatosis type 1 also known as Von Recklinghausen’s disease is a hereditary disorder inherited as an autosomal dominant trait .This disorder is characterized by increased cell proliferation and tumor development.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Kerala Dental Journal October 2011; 34(4):454- 455.	Burning Mouth Syndrome.

Abstract: Burning mouth syndrome (BMS) is defined as a burning sensation of the oral mucosa in the absence of specific oral lesions. The underlying etiology remains unclear. Probably of multifactorial origin, with a still unknown etiopathogenesis in which local, systemic and psychological factors are implicated. Peripheral alterations may be related to the density or reactive capacity of the oral mucosal membrane receptors - these being largely influenced by BMS-related risk factors such as stress, anxiety, the female gender and advanced age. Unlike most other clinical conditions presenting in a dental office, burning mouth syndrome is poorly understood with few evidence based remedies. This paper presents an overview of etiology, signs and symptoms and treatment of BMS.

تاريخ النشر	وعاء النشر	عنوان البحث
2013	Kerala Dental Journal July 2013 Vol 36, No 3, Page 199-201.	Extra follicular type of Adenomatoid odontogenic tumor- Case Report

Abstract: The adenomatoid odontogenic tumor (AOT) is a rare odontogenic tumor comprising of only 3% of all the odontogenic tumors and it often mimic like an odontogenic cyst. Though odontogenic in origin the presence of so called “duct like structures” often interspersed throughout the lesion gives a glandular or Adenomatoid appearance. It is predominantly seen in the anterior maxilla often associated with an impacted tooth. Here we are presenting a case of extra follicular type of AOT in the anterior maxillary region in a 14 year old boy.

ABSTRACT OF THESIS 2009

COMPARATIVE EVALUATION OF COMMA-SHAPED INCISION WITH WARD'S INCISION IN MANDIBULAR THIRD MOLAR SURGERY THE TAMILNADU Dr. M.G.R. MEDICAL UNIVERSITY

Abstract: Aims and objectives: This study aims at the evaluation and comparison of two types of flap designs used in the Surgical removal of impacted mandibular third molar. The objectives of this study are: 1- To determine the influence of flap design on pain, trismus. pocket formation and swelling, 2- To achieve good exposure to the third molar area and ease of closure. 3- To evaluate the merits and demerits of individual flap design. Material and Methods: 25 patients between the age group of 18-33yrs, having bilateral completely impacted mandibular third molars or partially erupted third molar, with good oral hygiene, without any symptoms of pain or swelling were included for the study. Patient on any medication, Pregnancy, severe Pericoronitis, soft tissue impaction, medically compromised, Missing mandibular second molars was the exclusion criteria for the study and were excluded from the study. The instruments used to compare two flap designs were Williams probe to measure pocket depth. Visual analog scale of 0 to 10 was used to estimate pain by subjectively asking the patient to rate the nociceptive experience. Swelling was assessed by measuring by the distance between the:

1. Tragus notch and a reproducible soft tissue pogonion along the skin surface.
2. Tragus notch to angle of mouth
3. Tragus notch to ala base
4. Tragus notch to outer surface on lateral wall of eye
5. Angle of mandible to outer surface of lateral wall of eye

The percentage difference between the postoperative and preoperative measurements was calculated. Mouth opening was evaluated by measuring the maximum interincisal distance. Twenty five patients who satisfied the inclusion criteria were enrolled after getting a written consent from them. Preoperative radiographs were taken to assess the position, depth and angulation of the third molars and to exclude any local pathosis such as a cyst, tumour etc. Preoperative measurements of pain, swelling, mouth opening and pocket depth were recorded. Surgical removal of one side impacted mandibular third molar was done under local anaesthesia. Standard flap incision was used in one side of the lower jaw. Postoperative measurements of pain, swelling and mouth opening were measured on day 1, 3 and 7 respectively. A wash out period of at least 10 days after the 7th

day of surgery was given. The extraction of the impacted teeth on the opposite side of the lower jaw was done with the alternate flap design-Comma incision. The follow up and postoperative complications of patients on day 1, 3 and 7 were recorded for the parameters studied. After reflection of the flap common steps for removal of impacted third mandibular molars were followed that is retraction of the buccal mucosa (Austin's retractor) and lingual mucosa and lingual nerve is protected along with the lingo mucoperiosteum by Rugeine end of Howarth's elevator and held by chain of Meckessons mouth prop. Flap was sutured with 3'0 Braided silk sutures. Postoperative instructions were given and patients with a standard antibiotic regimen of Cap. Amoxicillin 500mg TDS* 5days, Tab. Ibuprofen 400mg TDS* 5 days, Tab. Metronidazole 400mg TDS* 5 days. The pocket depth was measured for both sides at the end of first month and the second month. Data management and Analysis: The post-operative complications for each subject for both incisions were recorded and all data was entered in Microsoft Excel. Data was analysed using computer software, Statistical Package for Social Sciences (SPSS) version 10. Data are expressed in its frequency and percentage as well as mean and standard deviation. To elucidate the associations and comparisons between different parameters, Chi square (χ^2) test was used as nonparametric test. Student's t test was used to compare mean values between two groups. For all statistical evaluations, a two-tailed probability of value, < 0.05 was considered significant. Results: Out of 25 extractions done using ward's incision 17 were non erupted and 8 were partially erupted, Out of 25 extractions done using comma incision 18 were non erupted and 7 were partially erupted, In extractions done with standard incision 26.67%of subjects had severe pain on day 1 whereas only 13.33% of subjects had severe pain on the exaction side done by comma incision. There is a high statistically significant difference between the two type of incision on day 1 in comparing the pain. (Chi -Square=15.627, P=0.0062) similarly the pain was severe for 6.67% of the patients extracted with ward's incision and there was no pain on other side where comma incision was used on the 7th postoperative day (Chi -Square=28.799, P=0.000). In extractions done with standard incision 46.47%of subjects had severe swelling on day 1 whereas only 33.33% of subjects had severe swelling on the exaction side done by comma incision. But there was no statistically significant difference between the two type of incision on day 1 in comparing the swelling, (Chi -Square=2.4762, P=0.2889). the swelling was sever for 20% of the patient extracted with ward's incision and there were no patient with sever swelling on comma incision side, (Chi -Square=8.6872, P=0.0365). on 7th day there were no patient with severe swelling in both the groups but 40%of the patients experienced moderate pain in ward's incision group whereas only 13.33% had moderate swelling in comma croup. There is a statistically significant difference between the two groups on day 7 (Chi -Square=18.879, P=0.0158). The mouth opening on day 1 in ward's incision side is between 29-25mm where 33.33% whereas only 13.33% of the patients in comma group. There was highly

statistical significant difference between the two incisions on comparing the mouth opening on day 1 (Chi -Square=24.658, P=0.000). but through there was clinical difference between the two incisions on day 3 and 7 there was no statistical significance. There is significant statistical difference between wards and comma incision in relation to pocket depth measured at the end of first month and the second month in first month is (t=2.684, P=0.025), and in second month is (t=4.937, P=0.000). and even when ward's and comma incision are compared separately over time there was statistical significance between the pocket depth in first and the second month was seen, l'e (wards incision t=5.176, P=0.000) and (comma incision t=6.812, P=0.000) in second month. Conclusion: The results of the study shows that the new incision design is probably the conventional method considering the less degree of postoperative complications encountered. Further research with newer flap designs like the comma design, which will minimize the postoperative complications, should be considered in the extraction of impacted third molar surgery.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Journal of Dental Sciences and Research, 04, 01, February 2013	Mucoepidermoid carcinoma of palate mimicking vascular lesion: A case report

Abstract: Salivary gland carcinomas are a rare and clinically diverse group of neoplasms among which mucoepidermoid carcinomas (MEC) are reported to be most frequently occurring. MEC display a variety of biological behaviours and variable natural history. We report a case of mucoepidermoid carcinoma mimicking vascular lesion. Histopathological features suggested low grade mucoepidermoid carcinoma. Surgical resection was done. Follow up of two years did not show any recurrence. Maxillary .MEC should be followed-up for longer period as they have worse prognosis than mandibular lesions.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Journal of Oral and Maxillofacial Radiology, 01, 02, May-august 2013	Concomitant occurrence of infected cemento-osseous dysplasia and radicular cyst in young Indian female: An unusual case report

Abstract: Cemento-osseous dysplasia is a non-neoplastic process usually confined to the tooth bearing areas of jaws or edentulous alveolar process. Cemento-

osseous dysplasias are categorized into three types on basis of the clinical and radiographic features: Periapical, focal and florid. Focal cemento-osseous dysplasia is benign fibrous osseous condition that can be seen in dentulous and edentulous patient. The lesion is detected only on radiographic examination with variation comprising a combination of radiolucent and radiopaque pattern. It is asymptomatic and needs no treatment. We report an unusual case of concomitant occurrence of infected focal cemento-osseous dysplasia in mandible with atypical clinical presentation of two sinus openings and a radicular cyst in maxilla.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Journal of Pharmacy & Bio allied Sciences, 05,02, April-June 2013.	Bilaterally impacted mandibular supernumerary premolars associated with unusual clinical complications.

Abstract: Supernumerary teeth are extra teeth in comparison to the normal dentition. Their prevalence varies between 0.1% and 3.8%. Supernumeraries are more common in permanent dentition and its incidence is higher in maxillary incisor region, followed by maxillary third molar and mandibular molar, premolar, canine, and lateral incisor. The prevalence of supernumerary premolars is between 0.075-0.26%, and they may occur in single or multiple numbers Bilateral occurrence is uncommon and large percentage of supernumerary premolars remains impacted, unerupted, and usually asymptomatic; radiograph plays an important role in diagnosis of these. The present paper reports a case of bilaterally impacted completely developed supernumerary premolars associated with common clinical complication in unusual manner along with taurodontism of the upper and lower molars.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Journal of Dental Sciences and Research, 03, 01, February 2012.	Complex Odontoma Fused to Lower Wisdom Tooth An Unusual Case.

Abstract: Odontomas are tumours of odontogenic origin, hamartomatous, non-aggressive & are usually considered as developmental anomalies. We report a

case of complex odontoma fused to mandibular wisdom tooth which is unusual. This case is significant as there are only few case reports of complex odontomas fused to wisdom tooth of normal morphology.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	International Oral Maxillofacial surgery, 04, 09, September 2011.	Modified Turkish delight: morcellized polyethylene dorsal graft for rhinoplasty.

Abstract: Rhinoplasty is one of the most challenging facial aesthetic procedures. Achieving a desirable result depends on correct planning and execution and the tissue characteristics of the patient. Dorsal augmentation has been performed extensively using cartilage grafts harvested from the septum, alar cartilage, conchal cartilage and costal cartilages as well as from bone harvested from the ilium or tibia. Carved or crushed cartilage used as a graft might be perceptible through the nasal skin when tissue resolution is complete. Graft warp age and displacement are potential complications. The use of finely diced cartilage wrapped in one layer of Surgical mixed with 1 ml of the patient's blood, popularly known as Turkish delight, was suggested by Erol in 2000. The use of cartilage from the septum and ala might not suffice and conchal and costal cartilage harvesting requires a second surgical site. Also, considering the increasing demand for revision rhinoplasty, it might not always be feasible to harvest an adequate quantity of graft. The authors suggest the use of finely diced Medpor implant material wrapped in Surgical, mixed with 1 ml of the patient's blood for dorsal augmentation during rhinoplasty. Preliminary results are encouraging.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Asian Pacific Journal of Tropical Disease February 2014	Epidemiology and drug resistance profile of acute bacterial meningitis in children in Northern India: a university hospital perspective

Abstract: Objective: To assess epidemiology, trends in etiology and the antimicrobial sensitivity pattern of the pathogens. Methods: Cerebrospinal fluid was collected from 150 patients who were suspected of meningitis and processed according to standard microbiological techniques. Cerebrospinal fluid samples

were tested for antigen detection by latex agglutination test (LAT). Antimicrobial sensitivity test was done by Kirby-Bauer disc diffusion method. Results: Fever, abnormal movements and altered sensorium were the most common presenting features. Etiological agents were identified in 79 (53%) cases. A total of 33 (42%) samples were cultured positive while 59 (75%) were positive by LAT. Pneumococcus followed by Gram-negative organisms were the most common pathogens. Mortality was 28 (19%). The aminoglycosides had the best spectrum of antimicrobial activity. An alarming rise of methicillin-resistant *Staphylococcus aureus* (75%) and extended-spectrum beta-lactamase (59%) was seen. No high-level aminoglycoside resistance, AmpC or mannose-binding lectin production was observed. Conclusions: Pneumococcus and Gram-negative pathogens were the most common organisms. High prevalence of drug resistant pathogens is seen. Inclusion of LAT for antigen detection in routine diagnosis adds a valuable adjunct in the rapid and accurate diagnosis of pyogenic meningitis especially in partially treated cases.

ABSTRACT OF THESIS 2012

TOPIC NAME - AGE ASSESMENT BY DENTAL AND SKELETAL MATURITY PATTERN – A CROSS SECTIONAL STUDY AMONG MANGALORE POPULATION.

www.rguhs.ac.in

Abstract: An attempt was made to estimate the chronologic age of an individual using the dental and skeletal maturity in Mangalore population. **Sample** – Our study sample comprised of 150 subjects (75 males and 75 females) ranging from 10 to 20 years of age. We have divided our sample as less than or equal to 16 years and individuals above 16 years 1month to 20 years for better accuracy. **Methodology** – Dental age was assessed using the Demirjian method based on 7 mandibular teeth. The skeletal age was assessed using hand wrist radiograph by applying the method of Bjrok, Grave and Brown. **Results** – We have found a positive correlation between the chronologic age, estimated dental and skeletal age in individuals less than or equal to 16 years. There was a negative correlation seen in the individuals who are above 16years. We have seen a variation of 5 months in males and 6 months in females using the dental method while the skeletal method has shown a variation of 8 months in males and 7 months in females of less than or equal to 16 years. We propose a linear regression equation obtained by using dental and skeletal method separately for males and females; this can be used to decrease the difference between the estimated age and chronologic age. **Conclusion** – Both the dental and skeletal method can be used for age estimation with dental method being more accurate than the skeletal method in our population.

تاريخ النشر	وعاء النشر	عنوان البحث
2007	Journal of Indian Academy of Oral Medicine and Radiology. vol 19, No.4.	Epulis Need for Vigilant Radiographic Evaluation

Abstract: Epulis is a relatively common gingival swelling and is often due to inflammation. It is seen more commonly in females. A careful clinical examination followed by thorough radiographic investigation is required to rule out lesions such as peripheral ossifying fibroma which depicts calcifications. Here we present three cases which have a relatively similar clinical picture but varied in there

radiographic and histopathologic appearance. The management and post treatment follow up of the cases are also discussed in detail.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	Indian Journal of Dental Advancements vol 2; Issue 4.	Keratocystic odontogenic tumor mimicking radicular cyst - clinical Dilemma.

Abstract: Jaw cysts are very common due to the presence of odontogenic epithelium remnants. The odontogenic Keratocyst (OKC) is an epithelial developmental cyst of the jaws. This lesion is commonly found in the mandible, and can become quite large due to its rapid growth and its extension into the adjacent structures. The odontogenic Keratocyst (OKC) is a distinct entity from other odontogenic cysts that deserves special attention due to its aggressive clinical behavior and high rate of recurrence. WHO recommends the term Keratocystic odontogenic tumor as it reflects its neoplastic nature. A case of odontogenic Keratocyst involving the posterior mandible is presented in this article which was mimicking just like a radicular cyst. On closer view into the case proved the lesion to be an OKC.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	International Journal of Experimental Dental Science, January – June 2012; 1 (1) :19 – 22.	Compound Composite Odontome – Diagnostic Criteria for Odontomas.

Abstract: Odontomas behave like developmental abnormalities (hamartomas) than true neoplasms. Odontomas are developmental anomalies resulting from the growth of completely differentiated epithelial and mesenchymal cells that give rise to ameloblast and odontoblast. Odontomas are classified as complex odontoma and compound odontoma. The purpose of the article is to enumerate the diagnostic criteria for odontoma.

ABSTRACT OF THESIS 2010

“BLOOD GLUCOSE LEVEL ESTIMATION IN DIABETIC PATIENTS UNDERGOING DENTAL EXTRACTION UNDER LOCAL ANESTHESIA WITH AND WITHOUT ADRENALINE”.

Yenepoya University, Mangalore, Karnataka

J Basic Clin Physiol Pharmacol 2012;23(4):169–171

ABSTRACT : Background and Objectives: Adrenaline or other catecholamines are used as vasoconstrictors to increase the efficiency of local anaesthetic solutions. However, catecholamines are involved in integrated metabolic alterations which affect carbohydrates, proteins and lipids. Hyperglycemia may result from both direct and indirect action of adrenaline. The objective of the study is to evaluate if adrenaline containing and adrenaline free local anaesthetic solutions when injected in clinical doses, differ in their effects on blood glucose concentration in patients undergoing extraction. **Methods:** A double blind study was conducted on 50 healthy, medically uncompromised patients visiting Department of Oral and Maxillofacial surgery, Yenepoya Dental College. The first group of patients were injected 4 ml of local anesthesia (Xylocaine-2%) without adrenaline. And the second group were injected 4ml of local anaesthesia (Lignocaine hydrochloride - 2%) with adrenaline 1:80,000. Serial blood glucose estimations were done on both the occasions at same intervals. **Results:** The results of mean value of blood glucose concentrations of patients with plain lignocaine and lignocaine with adrenaline of two study groups recorded at 3 intervals of ten minutes each have been compared. There has been a statistically significant difference in the values of both the groups at all the three intervals of ten minutes starting from the baseline value. **Interpretation and conclusion:** It can be concluded from the results of the present investigations that local anaesthetic solutions injected in clinical doses can exert systemic metabolic responses and the these effect are still apparent in patients under some degree of stress. It could be concluded that dental local anaesthetic solution containing adrenaline may safely be used in diabetic patients who have taken their hypoglycaemic medications pre-operatively. On the other hand, it is unsafe to use the anaesthetic solution in those patients who have, for some reason or another, not taken their medication. It must be emphasized that the changes in blood glucose concentration recorded in this present investigation were small and unlikely to be a hazard in most individuals. However, the subjects investigated were all fit young adults and the responses were almost same. The method by

which adrenaline increases blood glucose is by α -adrenergic inhibition of insulin.²⁵ Thus the effect described should not be a danger to insulin-controlled diabetics. However, it would appear to be worthwhile to investigate the hyperglycaemic effect of adrenaline-containing local anaesthetics in non-insulin dependent diabetic patients. It can be concluded from the results of our study done that local anaesthetic solutions injected in clinical doses can exert systemic metabolic responses and that these effects are still apparent in patients under some degree of stress.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Al Ameen J Med Sc i 2014; 7(1) :40-44	Comparison of gap arthroplasty versus creating a pseudoarthrosis – modified technique for surgical management of temporomandibular joint ankylosis: a new approach

Abstract: Objectives: To compare the postoperative results like vertical ramus height, vertical facial height, anterior open bite, unilateral cross bite and reankylosis in patients with TMJ ankylosis after doing gap arthroplasty versus creating a pseudoarthrosis by this modified technique. *Background:* This surgical study done on 10 patients with TMJ ankylosis were 5 patients had unilateral ankylosis and 5 had bilateral ankylosis. Pseudoarthrosis was created by this modified technique in all 10 patients. *Methods:* In this technique, a pseudoarthrosis is created by two oblique osteotomies and resection of triangular shaped bony wedge between the articular cavity and subcondylar region involving ankylotic bony mass and sub-ankylotic normal bone and a surgical gap is created without interposing any material with gap of 1cm anteriorly and gap height decreasing posteriorly resulting in pseudoarthrosis at posterior border without any loss of vertical ramus height. *Results and conclusion:* The postoperative results show that this new approach of creating a pseudoarthrosis is effective and convenient method of treating TMJ ankylosis and has many advantages over conventional gap arthroplasty.

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تاريخ النشر	وعاء النشر	عنوان الكتاب
2011	Yenepoya University Publications	Tissue Expander (Book)

ABSTRACT OF MASTER THESIS 2008

Comparison between two types of occlusal splint for treatment of anterior disc displacement of temporomandibular joint.

Al- Azhar University

Abstract: This study was done to evaluate the final outcome of treatment of anterior disc displacement without reduction (ADDWNR) of temporomandibular joint (TMJ) by centric against anterior repositioning splint. Patients and methods, this study was conducted on twenty patients (16 female, and 4 male) with mean age of 18.35 year who were suffering from ADDWNR. The patients were divided into two groups; in group I, include 10 patients treated with a centric splint, while in group II, included 10 patients treated by anterior repositioning splint. Preoperative evaluation was performed by determining joint pain on palpation, muscle tenderness, interincisal distance, lateral and protrusive jaw movements. Patients were marking their pain on visual analogue scale. Magnetic resonance image (MRI) was done to confirm the clinical diagnosis orthopantomogram was done to exclude any osseous deformation. Electromyography (EMG) evaluation of masseter and temporalis muscles was done. These parameters were carried out different periods. The clinical parameters were done at (15, 30, 90, and 180 days). EMG was done at 3 and 6 months post treatment. MRI was done at 6 months after treatment to study the disc recapture, joint effusion. Results, there was significant reduction of all leading symptoms. There was significant improvement in EMG of masseter and temporalis muscles, there was great improvement in joint effusion of retrodiscal tissue, while disc recapture could not achieved. Finally, there was no statistical significant difference between both types of splint. Conclusion, the treatment of ADDNR with either of the two splint was successful, the use of occlusal splint is efficient to improve the electrical activity of masseter and temporalis muscles. In patients with ADDNR the aim of splint therapy is to adapt TMJ, decrease pain, and permit unlimited TMJ movement.

ABSTRACT OF DOCTORAL THESIS 2011

Alveolar bone height distraction osteogenesis for early implant placement.

Al- Azhar University

Abstract: This study was designed to evaluate the efficacy of vertical distraction osteogenesis (ADO) for implant placement on the atrophic alveolar ridge of the posterior mandible. Patient and methods, this study was conducted on ten

patients (7 females and 3 males) with mean age of 54.04 years. Patients with decreased height of alveolar ridge in posterior mandible and need rehabilitation of missing teeth with implant were included in this study. Before surgery ortopantomogram (OPG) was taken & study casts were mounted on simple hinge articulator to determine index A (predicted crown height to available bone height). ADO was done through flap reflection trapezoidal osteotomy then the distractor was secured with screw finally the wound closed primarily. Patients were left for 7 days as latent period, and the distraction was started at a rate of 1mm per day. After distraction , patients were left for consolidation. According to consolidation period the patients were divided into two groups; group I: in which the consolidation period was 4 weeks, while in group II, the consolidation period was 8 weeks. In both groups at the end of consolidation period the distractors were removed and implant inserted at the same time. Postoperative complication included infection, wound dehiscence, relapse after distraction, pocket depth around the implant. Also bone density around the implant was calculated immediately after implant placement and at 6 months of placement. Results, the distracted segment was sufficiently enlarged to enable implant with length of at least 11mm. there was a significant reduction in crown root ratio, both consolidation periods showed similar results, and there was signifrelapse at 6 months of implant insertion. There was significant improvement of periimplant bone density in distracted area as indicated by degora. Conclusion, ADO has proven to be a reliable technique for ridge augmentation allowing implant placement, ADO is indicted in cases in which the ratio of predicted required crown height : available bone height is greater than or equal to 1, ADO should considered an overcorrection of more than 20 % to overcome the resultant relapse. Also the survival of implant inserted in into distracted area has been shown to be satisfactory.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Al- Azhar J of Dent science 2011;14: 135- 9.	Vertical and horizontal alveolar ridge augmentation prior to dental implant installation.

Abstract: This study was designed to correct deficient alveolar ridge height and width using vertical alveolar distraction osteogenesis and deproteinized bone graft (DPBG) with guided bone regeneration (GBR). **Patient & methods.** Five patients (4 female and one male) were included in this study. A total of 6 alveolar distractions were done, and 10 implants inserted, patients were rehabilitated with implant-born dental prosthesis. The height of the distracted ridge was measured on othopantomgram at the end of consolidation period and at 6 months of implant placement. Changes of horizontally augmented alveolar ridge was monitored by

ridge mapping at 2 weeks after implant placement, 2 weeks after implant loading, and at 6 months of after implant placement. **Results.** There was a significant increase in bone height after distraction and bone width after horizontal ridge augmentation. Significant reduction of distracted bone was found at the end of consolidation period and 6 months of implant placement. There was 100 % success of implant placed in reconstructed area throughout the study period. **Conclusion.** The newly formed bone following distraction osteogenesis seems to favourably withstand the biomechanical demands of implant loading. The DPBG proved to be good unlimited source for horizontal ridge augmentation it is recommended to perform twenty percent overcorrection during distraction to overcome relapse.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Al- Azhar J of Dent science 2011;14.	Alveolar bone height distraction osteogenesis for early implant placement.

Abstract: This study evaluated alveolar distraction osteogenesis (ADO) to correct alveolar ridge height deficiency, and to examine the effect of consolidation period length on the regenerated bone. Patient and methods, ten patients were treated by mean of ADO to correct alveolar ridge height deficiency. They were randomly divided into two equal groups; in group I, the consolidation period was 4 weeks, while in group II, the consolidation period was 8 weeks. At the end of consolidation period the distractors were removed and the implant inserted and loaded after 3 months of its placement. The following parameters were evaluated bone resorption of regenerated ridges at the end of consolidation period and at 6 months of implant placement and bone density around the implants. Results, ADO resulted in significant increase in bone height. Both consolidation periods were associated with successful results, so the treatment time could be shortened with four weeks consolidation periods. The periimplant bone density in distracted area was significantly increased. There was 100% survival rate of implant placed in reconstructed area. The results suggested that the newly formed bone following distraction osteogenesis seems to withstand the biomechanical needs of implant loading. It is recommended to perform twenty percent overcorrection during distraction to overcome relapse of the distracted segment.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Egyptian Dent J 2011;57: 1625- 9	Importance of overcorrection in vertical alveolar bone distraction osteogenesis.

Abstract: This study was designed to evaluate the decrease in bone height after vertical alveolar distraction and determine the required amount for overcorrection. Patient and methods, five patients (4 female and one male mean age 43.9 years) submitted to alveolar distraction. Alveolar ridge height was evaluated using digital orthopantomographic radiographs taken preoperatively, after the end of distraction, at the end of consolidation and after 6 months of implant placement. The mean distraction was 12.5mm, at the end of consolidation period which decreased to 10.8mm (21 %). These results indicate that any alveolar DO protocol should be considered an overcorrection of more than 20% to compensate the predicted relapse.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Al-Azhar J of Dent Science. 2012	A comparative study of microplate and miniplate fixation for mandibular symphysis fracture.

Abstract: This study determines the clinical stability, operative outcome, and efficacy of two microplates in the management of symphyseal and parasymphyseal mandibular fracture compared with the standard 2- miniplates treatment. Patients and method, 22 patients (18 males, 4 females with mean age of 36 ± 4.2) with isolated symphyseal and parasymphyseal mandibular fractures were randomly assigned into two groups. *In group I:* the fracture stabilized using 2 microplates, while in *group II*, the fracture stabilized by 2 microplates. Preoperatively, clinical and panoramic radiographic evaluation was performed to assess occlusal status, neural deficit, and degree of displacement. All fractures were exposed and fixed through intraoral approach. Perioperative complication, such as drill, plate, screw breakage, screw failure and need to use emergency screw were observed. Postoperatively clinical and panoramic radiographic evaluation was performed immediately, 3 months, and 6 months after surgery to assess signs of the infection, wound dehiscence, plate exposure, plate palpability, assess reduction status, and presence of bone resorption. Results, in group I, microscrew broke during insertion. No emergency screw was needed; no drill or plate breakage was recorded. In group II, there was no complication associated with plate placement. In group I, there was no case of infection or wound dehiscence, while in group II, there were 4 cases of wound dehiscence. Paresthesia of lower lip was observed only in one patient in group I, and 7 patients in group II. In group I, there was no complaint of plate palpability, while in group II, plate palpability reported in 4 patients. Conclusion, the microplate system when used to treat mandibular fracture provides similar fixation results as miniplate system and less incidence of complication. Characteristics of microplate include minimal size, low plate screw profile, and firm three dimensional stability making

it reliable method for fixation of mandibular fracture. Complication associated with microplates system can be considered of insignificant clinical value.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Cairo Dent J 2013;29: 445-454.	Efficacy of a mixture of mandibular symphysis bone graft and platelet rich fibrin surrounded with collagen membrane in alveolar cleft repair (Clinical & Radiological Study),

Abstract: Aim of this study was to evaluate the clinical and radiographical outcome of using a mixture of mandibular symphysis bone graft and platelet rich fibrin PRF, covered by collagenous membrane to repair alveolar cleft. **Materials and Methods:** The study consisted of 10 patients, six males and 4 females, with a mean age of 9.3 ± 1.7 . All alveolar clefts were grafted with autogenous bone graft harvested from mandibular symphysis mixed with PRF and covered by collagenous membrane. All alveolar clefts were radiographed using multi-detector computed tomography (MDCT), immediately after surgery and at 6 months. Volumetric and densitometric analysis was performed within the grafted area. **Results:** Average percent of the loss in the bone graft was 19.6%, 32.7%, and 26.4% in the height, thickness, and width respectively at 6 months after alveolar grafting. The mean bone density of the grafted area was 717.8 ± 116.3 HU (Hounsfield unit) at 6 months. There was no statistically significant difference between mean bone density of the grafted bone and normal bone at that period. **Conclusion:** Incorporating PRF into the graft accelerates bone healing and improves bone density. Covering the graft with collagenous membrane enhances overlying soft tissue healing and minimizing the amount of graft resorption. Using MDCT scan with reformatting multiplaner and 3D images provide better visualizing and assessing the bone graft.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Egyptian J of Oral & Maxillofac Surg.2013;4:67-71	Evaluation of combined splint and arthrocentesis therapy for treatment of temporomandibular joint internal derangement.

Abstract: Purpose: This study was designed to evaluate the efficacy of combined splint and arthrocentesis with sodium hyaluronate (SH) injection therapy versus splint or arthrocentesis with SH injection for treatment of temporomandibular

joint (TMJ) internal derangement (ID). **Patients and methods:** Thirty patients (22 women and eight men) with a mean age of 26.5 years constituted the study sample. The patients' complaints were limited mouth opening, TMJ pain, and joint noises during function. The patients were randomly divided into three groups. Group 1 patients were treated with a centric splint. Arthrocentesis with SH injection was used for patients of group 2. Patients of group 3 were treated with combined splint and arthrocentesis with SH injection. Each group contained patients suffering from anterior disc displacement with and without reduction. Clinical evaluation was performed before the procedure and at 15 days, 1, 3, 6, and 12 months postoperatively. Maximal mouth opening, masticatory muscle tenderness, and TMJ pain also were recorded at each follow-up visit. **Results:** All groups of this study showed improvement in maximal mouth opening, TMJ pain, muscle tenderness, and clicking sounds with variable degrees according to treatment modality. **Conclusion:** Although patients with TMJ ID benefited from each technique to a variable extent, arthrocentesis of TMJ with injection of SH followed by application of a centric splint seemed to be superior in achieving rapid and prolonged improvement in TMJ ID compared with other techniques.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Open J of Ostomatology. 2014;4:208- 27	Future of treatment of temporomandibular joint dysfunction in parkinsonism patient.

Abstract: The purpose of the study was designed to clarify the modern trends of physical therapy in treatment of temporomandibular joint dysfunctions in Parkinsonian patients, which in this respect included the degree of pain, the muscles power of both masseter and pterygoid, the range of TMJ motion, the angle of mouth opening and their effects on electromyography study in both sexes. **Subjects:** Thirty males and females were the same degree of disabilities according to modified Hoehn and Yahr scales (grade 3) of Parkinsonian patients, and their age ranged from 50 - 77 years old and their weight ranged from 60 - 88 kg. They were randomly divided into two equal groups (G1 and G2). G1 (control) consisted of 15 patients of both sexes and was treated by exercises therapy program and G2 (experimental) consisted of 15 Parkinsonian patients of both sexes and was treated by the same exercises therapy program and low level pulsed electromagnetic therapy. Vital signs such as blood pressure, body temperature, pulse rate and respiratory rate were measured before and after the treatment sessions. **Assessments:** Visual analogue scale was used to measure degree of pain. Tensiometer was used to measure the muscle power of masseter and pterygoid, the digital goniometer was used to investigate the range of TMJ

movement. Moreover, standard electromyography test (EMG) was used to measure the compound muscle action potentials. Statistically the results for all groups were analyzed by t-test to compare the differences between the two groups. The statistical package of social sciences (SPSS, version 10) was used for data processing using the P-value 0.05 as a level of significance. **Results** showed that there were significant improvements in all variables in G2 only. However, there was a little improvement but not significant in both G1. Therefore, it could be **concluded** that the use of low level pulsed electro-magnetic therapy combined with exercises program was the good method to control pain of TMJ, increase of muscle power and the range of their movements together with determination of electro-myography. Our results opened a new link to manage the TMJ dysfunctions in Parkinsonian patients via the use of low level pulsed electromagnetic therapy combined with exercises program.

قسم علوم إصلاح الأسنان

Restorative Dental Sciences Department

ABSTRACT OF THESIS 2009

APICAL MORPHOLOGY OF MANDIBULAR FIRST PREMOLAR Jordan University of Science and Technology

Abstract: Introduction: The main objective of root canal treatment is thorough mechanical and chemical cleansing of the pulp cavity and its complete filling with an inert filling material. It has been established that a root with a tapering canal and a single foramen is the exception rather than the rule. Root canal morphology especially in the apical third is a critically important factor during conventional root canal treatment and surgical endodontics. Thus, knowledge of the horizontal and vertical dimension of this area would be advantageous in determining the final shaping width and length in this area. Few studies concerning the morphology of root apex and foramen morphology have been conducted, and they mainly discuss the distance between these two entities. Even fewer studies concerning the diameter and shape of the anatomical foramen have been conducted on mandibular first premolar teeth. No data seems to be available on the possible effect of age and gender on the apical landmarks. Therefore, this study was conducted to investigate the shape and position of the physiological foramen and the relationship between the age and gender to the location and size of the apical foramen in mandibular first premolar teeth. **Materials and methods:** One hundred and one extracted human mandibular first premolar teeth were examined; the age and gender of the patients from whom the teeth had been collected were recorded. Apices of teeth were stained with methylene blue and then examined stereomicroscopically. The following observations were made: number of apical foramina; size and shape of the minor apical foramen; accessory foramina frequency, and deviation of the minor apical foramina (frequency and distance) from the apex and the possible effect of age and gender on these variables. **Results:** The number of major foramina ranged between 1 and 5 foramina, 64% of the mandibular first premolars examined had one foramen and 23% had two. There was a high frequency (75%) of 1, 2, or 3 accessory foramina. The mean distance between the physiological foramen and the anatomical apex was 0.638 mm. The most common physiological foramen shape was oval (50%). In the youngest age group; the irregular shape was dominant (41%), in the oldest age group; the round shape was dominant (45%). The mean maximum diameter of the minor apical foramina ranged from 0.259 to 0.291 mm and the mean minimum diameter was in the range 0.185– 0.242 mm. **Conclusion:** All of the apical foramina were found to be deviated from the long axis of the roots. The number of foramina ranged from 1 to 5 whereas the distances from the foramina openings to the tips of the apices ranged from 0.07 to 2.18 mm. The openings always ended short of the apices. These great variations render clinical identification of working length practically impossible. Thus over instrumentation

of the root canal must be a common and unnoticed occurrence. It was found that the shape of the apical foramen and the distance from the foramen to the anatomical apex change with age.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	International Journal of Dental Sciences and Research, 2014, Vol. 2, No. 1, 9-11	Management of Unhealing Ulcers on Bilateral Borders of the Tongue.

Abstract: Presence of long standing unhealing ulcer in an oral cavity, not only makes eating and chewing difficult but puts the patient under tremendous mental stress leading to cancer phobia. This case report describes management of unusual occurrence of bilateral unhealing ulcers on the tongue of a young lady. The ulcers developed after insertion of fixed partial dentures four year ago. Despite visiting many physicians, dentists and an ENT specialist, she didn't find the relief. Due to long illness, she has become very irritable, anxious and uncooperative. It was therefore, necessary to treat her in a logical order that her confidence in us is not lost. First of all, to reduce her anxiety, she was put on 0.25 mg Alprazolam tablets which also helped her in sleeping at night. Repair or replacement of her previously deteriorated intracoronal restorations was performed next. Finding no relief with this, a bridge present on right side was removed first. It reduced redness in the ulcer on right side of tongue. The other bridges present on left side were also removed. The ulcers had become less painful and stopped progressing but not found healing. Biopsy of the lesion was done which reported as "Pseudoepithliomatous Hyperplasia". An oral surgeon was requested to excise the lesion. After excision, both the ulcers healed within two weeks.

ABSTRACT OF THESIS 2010

“Comparison of the efficacy of “F-file” with sonic and ultrasonic debridement to remove artificially placed dentine debris from human root canals- an in vitro study.”

Endodontology 2010; Vol.22:1: 37-45.

Abstract: The purpose of this study was to compare the efficacy of ‘F-File’ with passive sonic and ultrasonic irrigation to remove artificially placed dentine debris from simulated instrumented canal extensions in root canals. 160 canine teeth were decoronated and their root canals instrumented to size 50, 0.05 taper. Each root was split longitudinally, forming two halves. A groove was cut in the canal wall 2-6 mm from the apex in one half which was then filled with dentine debris prior to the roots being reassembled. Then the roots were divided randomly in to four groups. In group 1, the root canal was flushed with 50 ml of 1% Sodium hypochlorite (NaOCl) using simple syringe irrigation. In group 2, 1 minute Passive sonic irrigation was performed using 50ml of 1% NaOCl. In group 3, 1 minute Passive Ultrasonic irrigation was performed using 50ml of 1% NaOCl. In group 4, the F-file was used to agitate 1% NaOCl (total vol. 50ml) for 1 minute at 600 rpm. Before and after irrigation, images of the half of canal with groove were taken using a microscope and digital camera, after which they were scanned in to a computer as TIFF images. The percentage cleanliness of the groove was evaluated using Adobe Photoshop CS2 software. The differences in the percentage of clean area of the groove between four groups were analyzed by means of one-way ANOVA.

تاريخ النشر	وعاء النشر	عنوان البحث
2008	Endodontology 2008; Vol. 20: 2:22- 26.	A Comparative Evaluation of Cyclic Fatigue Resistance of Two Rotary Nickel - Titanium Endodontic Systems - An In Vitro Study.

Abstract: The purpose of this study was to compare the fracture resistance of two different rotary Ni Ti instrument systems due to cyclic fatigue. The instruments compared were RaCe (FKG, La- Chaux De Fonds, Switzerland) and a new rotary system - Varitaper (Endomax, Equinox, Holland). The cyclic fatigue testing was conducted with the instrument rotating freely at two different angles of curvature 45 degree & 90 degree with maximum curvature at 5mm from the tip. Total 60 instruments were tested in the two groups for both angles of curvature. The

instruments were rotated at 350 rpm using the ATR motor (Dentsply, Maillefer) set at maximum torque, until fracture occurred. The time until fracture was recorded in seconds by using a stopwatch, and the number of rotations to fracture was then calculated and results were statistically analyzed. RaCe (FKG, La- Chaux De Fonds, Switzerland) performed significantly better than Varitaper (Endomax, Equinox, Holland) in cyclic fatigue testing.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	Journal of International College of Dentists 2010; Vol. 55, No. 1: 8-11.	Endodontic management of Radix Entomolaris Diagnosed with Cone Beam Computerized Tomography: Two Case Reports.

Abstract: The importance of knowledge of the variation in internal anatomy of root canals is essential for the success of endodontic treatment. Mandibular molars can have an additional root located lingually (the Radix entomolaris). If present, an awareness and understanding of this unusual root and its root canal morphology can contribute to the successful outcome of root canal treatment. In this report, the author describes the endodontic treatment of two cases of mandibular molar with radix entomolaris, their identification & treatment. It highlights the diagnostic importance of Cone- beam computed tomography (CBCT) in endodontic management of mandibular molars having three/extra roots.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Case Reports in Dentistry 2012; ID 624792, doi: 10.1155/2012: 5 pages.	Nonsurgical Endodontic Retreatment of Advanced Inflammatory External Root Resorption using Mineral Trioxide Aggregate Obturation.

Abstract: Inflammatory external root resorption is one of the major complications after traumatic dental injury. In this case report, we describe treatment of a maxillary central incisor affected by severe, perforating external root resorption. An 18-year-old patient presented with a previously traumatized, root-filled maxillary central incisor associated with pain and sinus tract. Radiographic examination revealed periradicular lesion involving pathologic resorption of the apical region of the root and lateral root surface both mesially and distally. After removal of the root canal filling, the tooth was disinfected with intracanal triple antibiotic paste for 2 weeks. The antibiotic dressing was then removed, and the entire root canal was filled with mineral trioxide aggregate. The endodontic access cavity was restored with composite resin. After 18months, significant osseous

healing of the periradicular region and lateral periodontium had occurred with arrest of external root resorption, and no clinical symptoms were apparent.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Indian Journal of Restorative Dentistry 2013; Vol. 2, Issue1 (January): 8-18.	Alternatives to Dental Amalgam- A Review.

Abstract: Worldwide publicity of the amalgam controversy has intensified the growing concerns on its utilization and safety. This controversy has grown beyond the confines of the dental profession itself and has become an emotional public health issue. Amalgam has been the material of choice for restoring posterior teeth for more than 100 years. Presently, there has been a shift toward resin composite and other alternative materials because of concerns about the esthetics and biocompatibility of dental amalgam. Other materials such as glass ionomer cements, ceramic inlays and onlays, and gold alloys have been used as alternatives to amalgam. Cast gold restorations are excellent but extremely expensive and difficult to place. For most people, who have limited financial resources, amalgam remains the only feasible choice. Moreover, those who oppose amalgam for possible health reasons should remember that other substances have not received extensive scrutiny in this regard. This article will review recent studies on the longevity and biocompatibility of these alternatives to dental amalgam.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Indian Journal of Stomatology 2013; Vol.4, Issue2 (April-June); 119-123.	Endodontic Management of Unusual Foreign Objects In The Root Canal: A Case Report Series.

Abstract: Foreign objects that are found in the root canals may be placed by the patient themselves or sometimes by the dentist as a part of dental malpractice. The presence of these objects prevents thorough cleaning and shaping of the root canal system and is hence likely to compromise the treatment. Also these metallic objects act as a focus of infection and lead to severe dentinal destruction. Removal of these objects from the canal without sacrificing much tooth structure and subsequent endodontic management remains a challenge. In many instances such obstructions can be negotiated and the offending object removed without great difficulty. However, in other cases the procedure might be time consuming. The cases that are presented address the difficulties encountered while removing these unusual canal obstructions.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	CDETENT Dental Journal. volume 1, issue no: 4, page 15- 17 , September- December 2011	SUPER BOND IN DENTISTRY

Abstract: Cyanoacrylate adhesives are sometimes known as "instant glues" with an abbreviation 'CA'. The Cyanoacrylates were first synthesized in 1949 by Ardis. Cyanoacrylate is a simple polar linear molecule that polymerizes rapidly when exposed to moisture. It is relatively non-toxic, very fast-acting, extremely strong, and needs no other mixer or catalyst. Chemical formula $CH_2=C(CN)COOR$, where R can be substituted for any alkyl group ranging from methyl to decyl. Cyanoacrylate is the generic name for cyanoacrylate based fast-acting glues such as methyl -2-Cyanoacrylate; ethyl-2-Cyanoacrylate (super glue and crazy glue), n- butyl Cyanoacrylate (veterinary glues) and 2- octylcyanoacrylate (used in liquid bandages such as Derma bond, Nexa bond and Super bond). Cyanoacrylate have been used in Dentistry from long time. It is mainly used as tissue closure after surgical procedure, dental adhesive, sealing dentine, haemostatic, bonding orthodontic bands etc. In this article mention about the different types of Cyanoacrylate used in dentistry , their main clinical advantages and disadvantages, properties and their toxicity in patients.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	CDETENT Dental Journal.volume 1, issue no: 4, page 7- 10 , September- December 2011.	PERIODONTAL DRESSING- REQUIRED OR NOT?

Abstract: The purpose of this paper was to review the commercially available periodontal dressings, their physical and chemical properties, biocompatibility and therapeutic effects. There are numerous *in vitro* and *in vivo* studies have evaluated various properties of periodontal dressings. Physical and chemical properties of dressings are directly related to their dimensional changes and adhesion properties. Their biocompatibility and therapeutic effect are among the other factors evaluated in the literature. Chlorhexidine is the most commonly used antibacterial agent in studies. In general, when comparing the advantages with the disadvantages, application of periodontal dressing seems to be beneficial.

عضو هيئة التدريس أ. د. محمد شكري

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Al-Azhar Journal of Dental Science	Effect of Adhesive Layers on Microleakage of Nanocomposite resin

Abstract: A layer of an adhesive resin placed between the tooth and composite restoration has been shown to absorb some of the stress generated in the composite during polymerization and to reduce interfacial leakage. The purpose of this study was to evaluate the effect of adhesive layers of bonding agent on microleakage of nanocomposite resin in class II cavities. Two different types of adhesive systems: universal adhesive (Excite) and newly developed adhesive (Nano-Bond) and one type of light cured resin restorative material (Nanocomposite resin) were used in this study. These adhesives were applied to cavities by either manufactures' instructions or by an experimental method (single application or double application). Nanocomposite resin was then placed and light cured for 40s. Teeth were subjected to 500 thermal cycles between 5C⁰ and 55C⁰ and were immersed in 3% methylene blue solution for 24 hours, microleakage was observed microscopically. The data were analyzed by two way ANOVA. For comparison between groups Tukey's post. hoc test was used. Microleakage decreased significantly as the adhesive layer was increased. This result was supported by a theoretical examination of the data. In class II cavities, additional adhesive layering in the marginal area reduced the overall degree of microleakage. The contraction stress generated during the placement of a composite restoration contributes significantly to early marginal leakage and this stress was significantly absorbed and relieved by the application of an increasing thickness of low-stiffness adhesive.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	Al-Azhar Journal of Dental Science 2011, 14:21	Effect of Adhesive Layers on Micro-Shear Bond Strength of Nanocomposite Resin to Dentin

Abstract: The present study was conducted to evaluate the effect of adhesive layers on micro-shear bond strength of nanocomposite resin to dentin. Two different types of adhesive systems: universal adhesive (Excite) and newly developed adhesive (Nano-Bond) and one type of light cured resin restorative material (Nanocomposite resin) were used in this study. The occlusal surfaces of extracted human molar teeth were ground perpendicular to the long axis of each tooth to expose a flat dentin surface. The adhesives were applied on dentin

surfaces by either the manufactures' instructions or by an experimental method (single application or double application). Nanocomposite resin was then placed and light cured for 40 second. After 24 hours immersion in water at 37 °C, then subjected to thermocycling before testing, a micro-shear bond test was carried out. The data were analyzed by two ways ANOVA. For comparison between groups Tukey's post.hoc test was used. The mean bond strengths of Excite and Nano-Bond adhesives with a single application were 8.8 and 16.6 MPa, respectively. The mean bond strengths of Excite and Nano-Bond adhesives with double application were 13.2 and 21.8MPa, respectively. There were no statistically significant difference in micro-shear bond strengths between single application of Nano-Bond and double application of Excite adhesives. Micro-shear bond strength increased significantly as the adhesive layer was increased.

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تاريخ النشر	وعاء النشر	عنوان البحث
2009	Egyptian Dental Journal 2009, 55: 2233.	The Effect of Stain Solution and Curing Units on the Color Stability of Nanocomposite Resins

Abstract: The aim of this research was to study the effect of two light curing units on the color stability of nanocomposite resins, as a function of accelerated aging from stain exposure. Two aesthetic light-cured nanocomposite resins (Filtek & Grandio) were cured in polytetrafluoroethylene disc ring (30 each) using two different light-curing units, 1) QTH and 2) PAC. Two beverages (coffee and tea) were used as staining solutions and distilled water (control). The valuations were made after 1, 7 and 30 days by means of reflectance spectrophotometry. The data were subjected to statistical analysis using one-way ANOVA and post hoc comparison was made using the Tukey test with level of significance of 5%. Krushal-Wallis Multiple Comparison Test was performed to evaluate the ΔE^* between water, tea and coffee immersion experienced by the two nanocomposite resins. Statistical difference was observed between tea and water and tea and coffee for different periods; whereas no difference was seen between water and tea in PAC cured Grandio resin specimens after 1 day of immersion. In conclusion, the PAC cured Grandio resin specimens showed significantly higher discoloration than the other specimens. The staining solutions produced discoloration, while water showed the least changes. Nanocomposite resin with lower filler contents (Filtek) was resistant to discoloration over a longer immersion period. Clinical significance: It may be considered prudent for the dentist to avoid the use of PAC curing light for nanocomposite restorations in heavy coffee drinks and it may also be preferable to use high power QTH curing light and composite with lower filler contents.

تاريخ النشر	وعاء النشر	عنوان البحث
2010	Al-Azhar Journal of Dental Science 2010, 13:41	The Effect of Acidic Soft Drink and Alcohol Mouth Wash on The Debonding Force of Ceramic Brackets

Abstract: The present study was conducted to evaluate the effects of acidic soft drinks (coca cola and lemon juice) and alcohol mouth rinse (Listerine 21.6 % ethanol) on the shear bond strength (SBS) of orthodontic ceramic brackets to enamel surfaces. The brackets were bonded with relay-A bond orthodontic adhesive to 60 extracted human premolar teeth and divided equally into four groups of 15, coca cola, lemon juice, alcohol mouth rinse (Listerine 21.6 % ethanol) and distilled water as a control. All groups were immersed in their respective solutions for one month. Shear bond strength (SBS) was measured with a universal testing machine. The initial pH and SBS of the groups were evaluated and the data were analyzed statistically by one-way analysis of variance (ANOVA) and Tukey HSD tests. The results have demonstrated significant reduction in the SBS of the three test groups {Alcohol MW (9.8 ± 1.8 MPa), Lemon juice (11.9 ± 2.8 MPa) and Coca-Cola (13.3 ± 3.3 MPa) when compared with distilled water (17.3 ± 3.9 MPa) {P < 0.001, 0.01, 0.05 respectively}. No significant differences were found among the three test groups. Although this experiment could not completely replicate the complex oral environment, it seems to confirm that alcohol mouth wash, lemon juice and Coca-Cola may be a causative factor in bracket–enamel bond failure. However, the use of an alcoholic mouth rinse during the last month of treatment may aid in bracket removal.

تاريخ النشر	وعاء النشر	عنوان البحث
2012	Egyptian Dental Journal 2012, 58: 2710.	Effect of ball and socket attachment diameters on retention of mandibular implant retained overdenture

Abstract: Two transparent acrylic resin casts simulating a completely edentulous mandible were used. The retentive forces of dislodgment of mandibular overdenture were recorded for four main groups; a single implant placed in midline area with 3.5mm diameter ball and socket attachment, a single implant with 4mm diameter ball attachment, a single implant with 4.5mm diameter ball attachment and two implants placed in canine regions with 3.5mm diameters ball attachments. The result showed that, there were significant differences between a single implant with ball attachment diameters (3.5, 4 and 4.5 mm) and between single implant and two implants with the same 3.5mm diameter of ball attachment. But there was no significant difference between a single implant with

4mm and 4.5mm diameters ball attachment and two implants with 3.5mm diameter ball attachment. The study concluded that the retention of the ball attachment on single implant retained mandibular overdenture increases as the diameter of the attachment increases and the single implant's ball attachment with large diameter offers retention nearly equal to that on two implants with smaller diameter.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Ain Shams Dental Journal 2013	Effect of Adding Silica Particles on Some Properties of Resin-modified Glass-ionomer Cement

Abstract: Resin-modified glass-ionomer cement (RMGIC) is usually used for Class V restorations. As such, the following aspects of RMGIC were examined in correlation with gap in the tooth cavity as well as some properties. In this study, silica particle was incorporated into RMGIC powder and study its effects on gap in tooth cavity, compressive strength, tensile strength, water sorption and solubility. One type of RMGIC [(Iono Gem LC: Glass ionomer cement (type II VLC) (light cure glass ionomer filling material))] and three concentration of silica particles (0.06, 0.08 and 0.1wt %) were used in this study. The silica particles were added with different concentration into RMGIC powder. Class V cavities were prepared then RMGIC was then placed and light cured for 40s. Teeth were subjected to 500 thermal cycles between 5°C and 55°C and were immersed in 3% methylene blue solution for 24 hours, microleakage was observed microscopically. Specimens were fabricated and the mechanical properties; compressive strength and tensile strength were measured using a Lloyd universal testing machine and water sorption and solubility were measured by an electronic analytical balance. The recorded values of microleakage (%), [compressive strength and tensile strength in (MPa)] and [water sorption and solubility in (mg/mm³)] were collected, tabulated and statistically analyzed. One way analysis of variance (ANOVA) and Tukey's tests were used for testing the significance between the means of tested properties of all tested materials which are statistically significant when the P value ≤ 0.05. Silica Added into RMGIC lead to decrease microleakage and solubility in Class V cavities. At the same time, either compressive strength, diametral tensile strength and water sorption was increased too. In this connection, this study revealed that microleakage and water solubility was correlated to compressive strength, diametral tensile strength and water sorption. These results indicate that silica particles added to RMGIC has a potential as a reliable restorative material with increased compressive strength, tensile strength and water sorption but decreased microleakage and water solubility.

تاريخ النشر	وعاء النشر	عنوان البحث
2014	Al-Azhar Journal of Dental Science 2014	The Effect of Silver Nanoparticles Incorporation on Deflection, Fracture Toughness, Modulus of Elasticity and Water Sorption of Acrylic Resin Denture Base Materials

Abstract: The present study was conducted to evaluate the effect of AgNps incorporation on some properties of acrylic resin denture base materials. AgNps in the form of a liquid was added to MMA (monomer) liquid with different percentage (0.1%, 0.2%, 1% & 5% by weight). Specimens are made by conventional heat cured acrylic resin, conventional heat cured acrylic resin with glass fiber and thermoplastic acrylic resin (control) and AgNps filled resin with standardized dimensions were constructed to test some physico-mechanical properties which were; deflection, fracture toughness, modulus of elasticity and water sorption. A total of 300 specimens were used in this study. These specimens were divided into three groups according to type of acrylic resin denture base material, each group was divided into five subgroups according to the percent of AgNps incorporation and each subgroup was subdivided into four subgroups according to type of test and each test consisted of five specimens. Deflection, fracture toughness and modulus of elasticity were measured using Lloyd universal testing machine and water sorption was measured by an electronic analytical balance. Two way analysis of variance (ANOVA) and Tukey's tests were used for testing the significance between the means of tested properties of all tested materials which are statistically significant when the P value ≤ 0.05 . The results of testing the physic-mechanical properties showed that incorporation of AgNps increased deflection, fracture toughness, modulus of elasticity and water sorption of fiber reinforced acrylic resin. Also incorporation AgNps increased modulus of elasticity of thermoplastic acrylic resin, while addition AgNps to acrylic resin decreased its fracture toughness, modulus of elasticity and water sorption of conventional acrylic resin and also decreased water sorption of thermoplastic acrylic resin. Incorporation of AgNps had no effect on its deflection of conventional acrylic resin, fracture toughness and deflection of thermoplastic acrylic resin.

تاريخ النشر	وعاء النشر	عنوان البحث
2012	Al-Azhar Journal of Dental Science 2012, 15:10	Effect of Anodization and Alkali-Heat Surface Treatment on the Bioactivity of Titanium Implant Material In-Vitro

Abstract: This study was aimed to assess the effect of anodized and alkali-heat surface treatment on the bioactivity of titanium alloy (Ti-6Al-4V) after immersion in Hank's solution for 7 days. *Method:* A fifteen titanium alloy samples were used in this study. The samples were divided in three groups (five for each), five sample were anodized in (1M H₃PO₄) at constant voltage value of 20v and another five samples were alkali treated in 5 M NaOH solution for 25 minutes at temperature 60 °C followed by heat treatment at 600°Cfor1hour. All samples then immersed in Hank's solution for 7 days to assess the effect of surface modifications on the bioactivity of titanium alloy. *Result:* Both the anodized and alkali-heat treatment increase the bioactivity of titanium implant alloy (Ti-6Al-4V).

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Al-Azhar Journal of Dental Science 2014	The effect of different designs of precision attachment on wear behavior; an in vitro study

Abstract: Objective: The aim of this study was to investigate the effect of different designs of precision attachments on wear behavior. Materials and Methods: Fifteen specimens of attachments with three different designs (OT cap, OT vertical and OT strategy) with plastic female parts and metal alloy male parts were selected. Each specimen had been subjected to 1200 wear cycle in a universal testing machine. Each cycle had performed full insertion/separation movement in an axial direction at a cross head speed of 50 mm/min in the presence of artificial saliva; and the retentive force had been measured at different thirteen intervals. Before and after testing each one of the polymeric retentive female parts (caps and clips) of the three groups had been individually weighted and scanned by SEM using low vacuum mode to detect loss of material and worn areas. Results: All designs subjected to wear but only OT vertical attachments has showed marked wear and retention loss. Conclusion: within the limitations of this study, OT cap attachments and OT strategy attachments showed slight wear and material loss in comparison to OT vertical attachments. The designs of attachments have an important role in wear process.

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تاريخ النشر	وعاء النشر	عنوان البحث
2006	Al-Azhar Journal of Dental Science 2006	The Effect of Different Sterilization and Disinfection Methods on some Properties of Dental Stone

Abstract: Five groups of specimens for one brand of dental stone were made. The first group was not sterilized (control group). The second group was sterilized in

gamma radiation cell unit, the third group was disinfected by using Glutaraldehyde spray, the fourth group the stone was mixed with aqueous solution of 5.25% sodium hypochlorite, and the fifth group was sterilized by steam autoclave. The compressive strength, hardness and surface quality of the different groups were evaluated. On the basis of the results of this study, it was concluded that gamma irradiation and 2% glutaraldehyde, followed by 0.5% sodium hypochlorite are mechanically satisfactory methods of disinfection. However, steam sterilization proved to be inadequate since it alters the mechanical properties of die-stone.

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تاريخ النشر	وعاء النشر	عنوان البحث
2004	Al-Azhar Journal of Dental Science 2004	Effect Of Ion Leach Out In Artificial Saliva On The Fatigue Resistance Of Pure Titanium And Ti-6Al-4V Alloy Clasps.

Abstract: Removable partial dentures are affected by fatigue because of the cyclic mechanism of the masticatory system and frequent insertion and removal. Titanium and its alloys have been used in the manufacture of denture frameworks and clasps; however, oral conditions and the change of the pH of the saliva are thought to affect the mechanical behavior of titanium and its electrochemical corrosion. This study evaluated, compared, and analyzed the corrosion and the deflection fatigue resistance of commercially pure titanium and Ti-6Al-4V alloy clasps in different storage environments. For each metal, 25 specimens were machine milled. The specimens were designed as retentive tapered clasp arm with half round cross section (2:1 width-thickness ratio). The atomic and optical absorption spectrophotometer were used to detect the leached out ions in synthetic saliva of different pHs (7.2 & 3.5), and to determine the corrosion rate. Deflection -fatigue strength test was carried out through the using of computerized material testing system (LRX Plus). The deflection loads and the number of cycles were recorded in five different periods till the fracture fatigue occurs. The Ti6Al4V alloy at pH3.5 during the second month period registered the highest mean value of titanium release, while group Ti at pH7.2 during the first week period had the lowest titanium release. The results also showed no significant differences on the deflection loads between the similar specimens of three different groups during the different periods of the cycles.

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تاريخ النشر	وعاء النشر	عنوان البحث
2008	Al-Azhar Journal of Dental Science 2008	Dimensional Accuracy of Different pH of Alginate Impression Materials

Abstract: It is of great clinical significance to obtain a cast that reflects the optimal accuracy of the irreversible hydrocolloid materials. This study investigated whether pH changes that occur during setting (as a single sequence of the chemical reactions that lead to gelation and the formation of the impression) are related to accuracy of irreversible hydrocolloids. The results indicated that, the dimensional changes are affected by pH values. Acidic pH value which was closer to the neutral is better than alkaline pH as regard the effect on dimensional accuracy.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	Al-Azhar Journal of Dental Science 2010	Effect of Incorporation of Polyethylene Fibers on the Flexural Strength of Acrylic Resin Denture Base Materials

Abstract: This investigation was carried out to study the effect of incorporating different percentages of polyethylene fibers on transverse strength, modulus of elasticity, deflection and toughness of heat-cured and autopolymerized acrylic resin materials. Different percentages of short cut polyethylene fibers (0.5%, 1%, 2%, 3%, 4% and 5%) were added into acrylic denture base resins. The results showed that the incorporation of heat cured acrylic resin by polyethylene fiber improved the following properties; transverse strength, modules of elasticity and toughness (especially by 2%). While the adding of polyethelene fiber into self-cured acrylic resin improved the following properties; flexural strength, deflection and modulus of elasticity toughness values decreased gradually when adding polyethylene fibers by different percentages. Adding the polyethelene fibers had better effect on heat cured acrylic resin rather than on auto-polymerizing acrylic resin.

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تاريخ النشر	وعاء النشر	عنوان البحث
2007	Al-Azhar Journal of Dental Science 2007	Effect of Thermal-cycling on Shear Bond Strength of Porcelain and Light Cured Composite Resin fused to Titanium and Titanium Alloy

Abstract: The effect of thermal cycling on shear bond strength of two metal substrates (commercially pure titanium and Ti-6Al-4V alloy) combined to low-fusing ceramic system and light cured composite resin was evaluated. Forty disc specimens were milled from pure Ti and Ti-6Al-4V alloy (20 each). The specimens were bonded to low fusing porcelain and light cured composite resin (10 each).

The specimens were divided into two groups. Group I served as a control group (without thermo-cycling) and Group II was thermal-cycled (3000 cycles). The shear bond strength test was performed in a computerized material testing system at a cross-head speed of 0.5mm/min. ANOVA and Tukey’s multiple comparison tests were used to analyze the data at a 5% probability level. The results showed that, thermal cycling did not affect the shear bond strength of low fusing porcelain bonded to pure Ti and significantly decreased the shear bond strengths of low fusing porcelain bonded to Ti–6Al–4V and light cured composite resin bonded to pure Ti and Ti–6Al–4V alloy.

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تاريخ النشر	وعاء النشر	عنوان البحث
2008	Al-Azhar Journal of Dental Science 2008	Effect of Light-Curing Units on Microhardness of Resin Composite

Abstract: The aim of this study was to evaluate the effect of light-curing units on microhardness of resin composite. Twenty disc specimens (3.0mm in diameter and 2.0mm in depth) were prepared for each tested material (Filtek Z250, Definite and Dyract). Specimens were light- cured with LCUs (Ultraled and Degulux) for either 40 or 60s on their top surfaces. Hardness was measured on top and bottom surfaces of each specimen. Statistical analysis was done by ANOVA and Tukey's test ($P < 0.05$) there was no significant difference in hardness between LEDLCU and halogen LCU for Filtek Z250 and Dyract on top surface. Conversely, lower hardness was recorded when Definite was light- cured with the LEDLCU than with the halogen lamp. On bottom surface, hardness was significantly lower for all materials light – cured with LEDLCU. Filtek Z250 was harder than Dyract and Definite regardless of the light curing unit. There was no significant difference in hardness between the exposure times on top surface. Higher hardness was obtained when the materials were light- cured for 60s on bottom surface. The tested LED was not able to produce the same micro hardness of resin composite materials as the halogen LCU.

قسم علم التعويضات السنية

Prosthetic Dental Sciences Department

ABSTRACT OF THESIS 2010

"COMPARISON OF CANDIDAL GROWTH & CHLORHEXIDINE EFFICACY ON CANDIDAL BIOFILM DEVELOPED ON REMOVABLE ACRYLIC RESIN DISKS ON COMPLETE DENTURE AS SAMPLING SYSTEM OF PATIENTS WITH & WITHOUT DENTURE STOMATITIS" - AN IN VIVO STUDY.

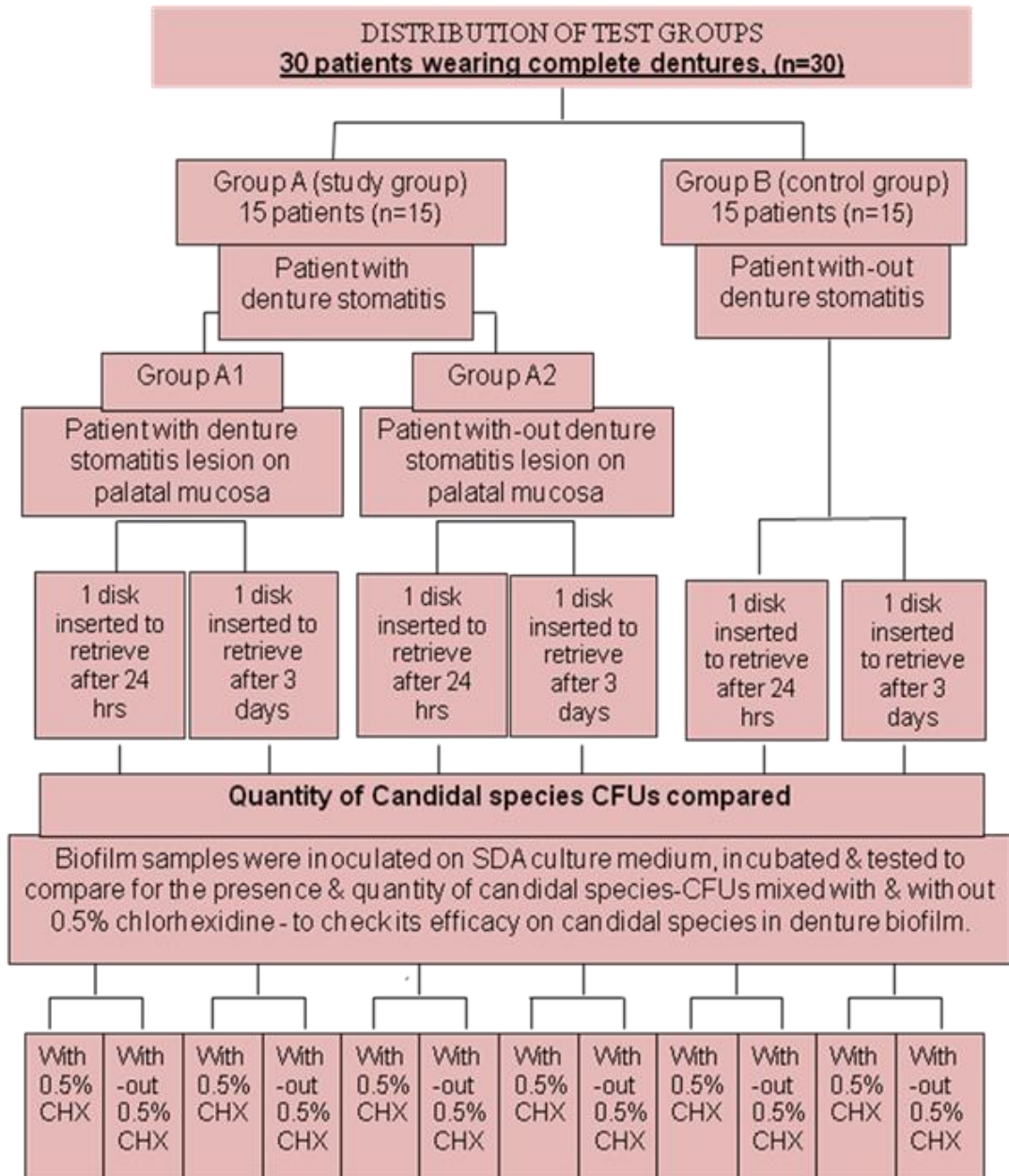
Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka.

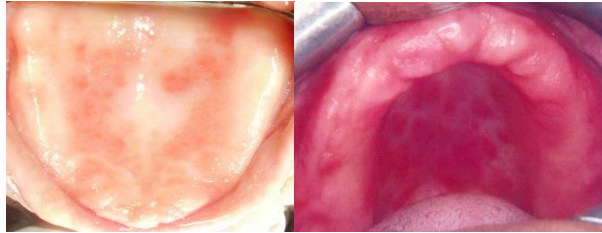
Abstract: Background and objectives: Denture stomatitis is highly prevalent in denture wearing patient, & microbial plaque accumulation on intaglio surface of removable dentures plays a critical role in formation of denture biofilm. Targeting microbes such as Candida species in denture biofilm at different stages in its development may result in better understanding of relationship of inflammation in Candida induced Denture stomatitis. The candidal cells are significantly less susceptible to antiseptics & antifungal agents, & their mechanism of resistance is not fully understood. Chlorhexidine is commonly used by dental patients as antiseptics; its efficacy on denture biofilm was tested and compared. The purpose of this study was to evaluate the growth of candidal species in Denture Biofilm using new sampling technique in vivo & testing whether chlorhexidine is effective as disinfectant on denture biofilm in patients with & without denture stomatitis.

Methodology: Fifteen patients wearing complete dentures for at least five years, diagnosed for localized or partial denture stomatitis were taken as study group, i.e. Group-A. In Group-A, A1-are patients with & A2- without denture stomatitis lesion on palatal mucosa. Group-B is patients without denture stomatitis. In Group-A four disks were inserted, with two in dentures under which stomatitis lesions present, and another two disks in same dentures under which no lesions present. After 24 hrs of wear of dentures by patient one disk was retrieved from the lesion site & another from normal site. After 3 days remaining one disk was retrieved from the lesion site & another from normal site. In group B only two disks were inserted, one disk was retrieved after a period of 24 hrs. & another disk after 3 days. Then biofilm sample disks retrieved subsequently after 24 hrs. & 3 days were inoculated on Sabourauds dextrose agar (SDA) plates for growth of Candida. Simultaneously the efficacy of 0.5% chlorhexidine was tested on the Petri dishes with the samples of biofilm. The number of CFU/ml of s samples retrieved after 24 hrs. & 3 days in Group-A & B patient, & in Group-A patients compared with & without denture stomatitis lesion under denture biofilm. Simultaneously efficacy of 0.5% chlorhexidine on candidal species isolated from Group-A & B, and within Group-A sample biofilm retrieved from lesion site mucosa & normal mucosa after 24 hrs. and after 3 days respectively was compared.



Fabrication of acrylic resin disk inlays. [Wax-patterns]

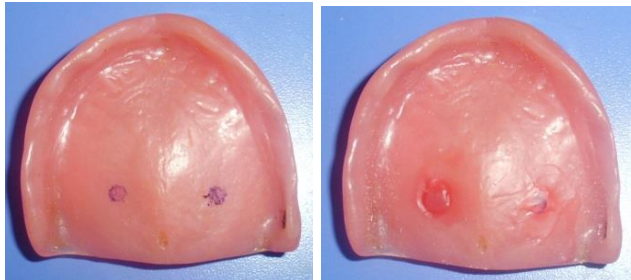




Denture stomatitis lesions on palatal mucosa



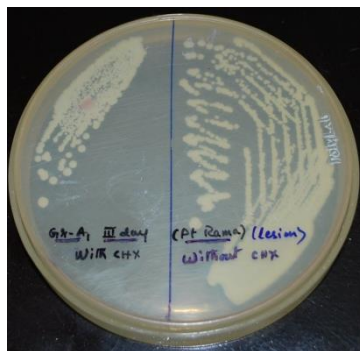
Acrylic resin disc inlay inserted in denture of patient with denture stomatitis.



Acrylic resin disc inlay inserted in denture of patient without denture-stomatitis.



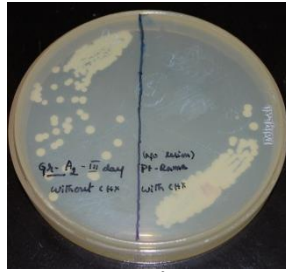
Group-A1, Candidal (CFU)s count with 1st day sample with & with-out CHX-0.5%



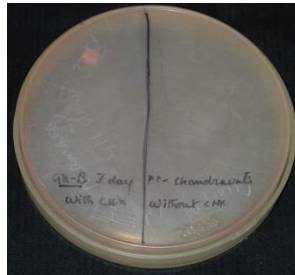
Group-A1, Candidal (CFU)s count with 3rd day sample with & with-out CHX-0.5%



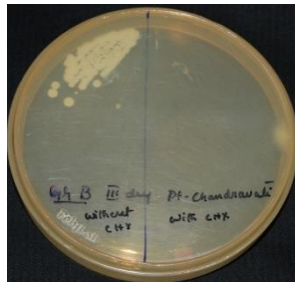
Group-A2, Candidal (CFU)s count with 1st day sample with & with-out CHX-0.5%



Group-A2, Candidal (CFU)s count with 3rd day sample with & with-out CHX-0.5%



Group-B, Candidal (CFU)s count with 1st day sample with & with-out CHX-0.5%

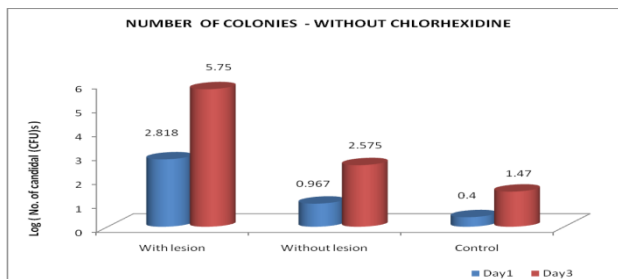


Group-B, Candidal (CFU)s count with 3rd day sample with & with-out CHX-0.5%

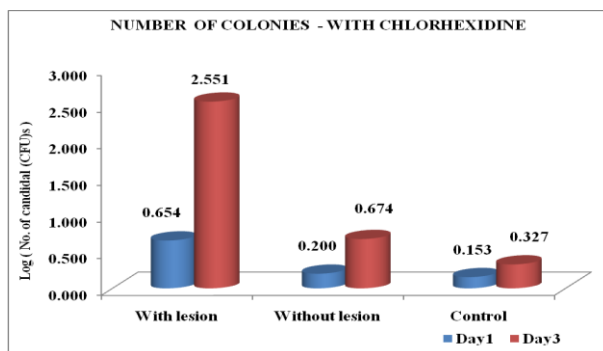
Results: The statistical analysis was done by taking actual values without considering the log values for the No. of Candidal (CFU)s count using a Kruskal-Wallis test (H) for group comparison, Mann-Whitney U test (z) for inter comparison of groups, & Wilcoxon signed rank sum test for comparison between day-1 day-3 samples. The No. of Candidal (CFU)s without CHX at lesion site on 3rd day was more than $5.7 \log_{10}$ Candidal (CFU)s and the fungal load reduces to $4 \log_{10}$ Candidal (CFU)s with application of 0.5% CHX with No. of Candidal (CFU)s count of $2.5 \log_{10}$ Candidal (CFU)s. The comparison on 1st day with & without CHX shows

that, the fungal load was reduced to a $2\log_{10}$ Candidal (CFU)s.. From samples at non lesion site for 3rd day when compared for means of No. of Candidal (CFU)s b/w, with & without 0.5% CHX, the fungal load was reduced to 1.9 \log_{10} Candidal (CFU)s & for 1st day it was reduced 0.2 \log_{10} Candidal (CFU)s. The samples from group-B for 3rd day when compared for means of No. of Candidal (CFU)s b/w with & without 0.5% CHX, the fungal load was reduced to 1 \log_{10} Candidal (CFU)s & for 1st day it was reduced to 0.2 \log_{10} Candidal (CFU)s.

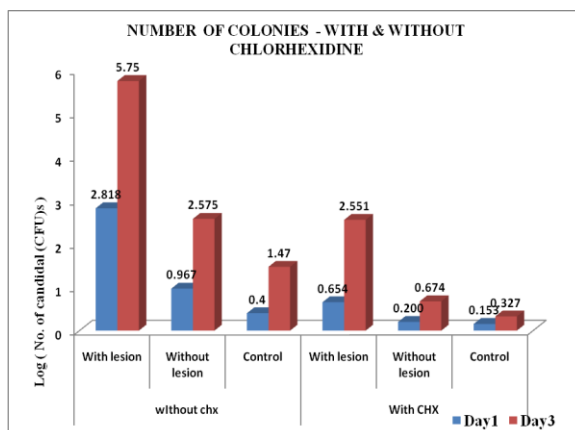
Graph-1



Graph-2



Graph-3



Interpretation & Conclusion: Within the limitations of this study, with the interpretation of results following conclusions were drawn; The No. of Candidal (CFU)s count in denture biofilm increases exponentially with statistically, highly significant order from day-1 to day 3 at lesion site of denture stomatitis, & with statistically significant order from day-1 to day 3 at non-lesion site of denture stomatitis patients & patients without denture stomatitis. CHX-0.5% was found to be very effective & of statistically highly significant order in reducing the fungal load at lesion site of denture stomatitis. And it was also effective in reducing the fungal load at non-lesion site of denture stomatitis patients & patients without denture stomatitis but it is statistically not significant.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	BFUDJ, Volume 3, Number 1, February 2012	PROSTHODONTIC REHABILITATION OF A PATIENT WITH ECTODERMAL DYSPLASIA: A CASE REPORT

Abstract: Ectodermal dysplasia is heterogeneous group of inherited disorders in which two or more ectodermally derived anatomic structures fail to develop. These tissues primarily are the skin, hair, nails, sweat gland and, the stomatognathic system. This case report outlines a method of restoring functions and esthetics for a 22 year-old female with ectodermal dysplasia. Patient was treated with removable maxillary and mandibular characterized overdenture with balanced articulation and age appropriate artificial teeth. The results were significant improvements in speech, masticatory function, and facial esthetics, contributing to development of normal dietary habits, and more rapid social integration of the patient.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Indian Journal of Dental Sciences. September 2012 Issue: 3, Vol.:4	FULL MOUTH REHABILITATION OF COLLAPSED BITE WITH INCREASED VERTICAL DIMENSION OF OCCLUSION. - A CASE REPORT

Abstract: This clinical report describes the oral rehabilitation of an adult patient diagnosed with collapsed bite, with few missing posterior teeth in both upper and lower arches. There was root canal treated left upper 1st molar which was periodontally weak with bifurcation involvement and lower right 2nd premolar which was post and core treated, where core was fractured & dislodged. The

specific objectives of this treatment were to restore the masticatory functions by Prosthetic rehabilitation of missing teeth, and then treating the periodontally & endodontically involved teeth. To treat the collapse bite problems, vertical dimension of occlusion (VDO) was raised by 2mm with-in the limit of free-way space. Treatment plan included, prosthodontic rehabilitation, to replace upper missing teeth with cast partial denture, & the lower missing teeth with metal ceramic fixed partial dentures, with predetermined increased VDO & also the evaluation and treatment of endodontic post & core treated tooth. Here full mouth rehabilitation was done with Pankey Mann Schuyler [PMS] Philosophy. With this treatment approach, the patient's aesthetic and functional expectations were satisfied.

عضو هيئة التدريس د. أتول باردوي

تاريخ النشر	وعاء النشر	عنوان البحث
2012	JPFA, Vol. 26, September, 2012, 132-36.	Effect of Chemical Disinfection on Dimensional Stability of Polyether Elastomeric Impression Material

Abstract: "Polyether is one of a commonly used material for making impression in prosthetic dentistry because of its properties like, excellent dimensional stability and low polymerisation shrinkage. Impression should be properly disinfected before sending to laboratory, but disinfection by immersion may cause dimensional changes because of hydrophilic nature of polyether. So this study was designed to evaluate the effect of disinfection on dimensional stability of polyether impression".

عضو هيئة التدريس د. ميلاند لوماني

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	INTERNATIONAL JOURNAL OF HEALTH AND ALLIED SCIENCES. (vol.2, issue 4, oct-dec. 2013)	PROSTHODONTIC REHABILITATION OF EDENTULOUS PATIENT WITH SURGICAL INDUCED MICROSTOMIA – A CASE REPORT.

Abstract: A restricted mouth opening which seems smaller than the size of complete denture can make prosthetic treatment challenging. Several techniques have been described for use when either standard impression trays or the denture itself becomes too difficult to insert and remove from the mouth. This case report describes innovative techniques for primary impression, sectional custom tray, sectional denture base and fabrication of customized hinge for hinged mandibular denture.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	INTERNATIONAL JOURNAL OF HEALTH AND ALLIED SCIENCES. (vol. 3, issue 3, july-sept.2014)	PROSTHETIC REHABILITATION OF A PATIENT WITH FACIAL MUCORMYCOSIS- A CASE REPORT.

Abstract: Facial mucormycosis is known complication in patients with immunological or metabolic compromise. Treatment includes reversal of compromised state, systemic antifungals and repeated radical debridement. The resultant deformity following debridement causes gross morbidity and psycho-social embarrassment. Surgical reconstruction is difficult on account of co-morbid diseases. Non-surgical prosthetic rehabilitation gives fairly accurate correction in these patients. We report a case of 62 yrs. old male diabetic with facial mucormycosis where debridement resulted in gross morbid defect. However, effective rehabilitation was achieved using extra oral prosthesis.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	DENTAL DIALOGUE (vol. 38, no.4, oct-dec.2012)	TOOTH SUPPORTED OVERDENTURE WITH STUD ATTACHMENT- A CASE REPORT

Abstract: Overdenture therapy is popular term applied in preventive prosthodontics. A worthy option of retaining tooth has led to a dramatic surge of

interest in the overdenture therapy. Overdenture has been an excellent treatment modality so as to overcome consequences of conventional overdenture. Attachments used for overdenture provides additional retention & stability. There are varieties of attachment available for the overdenture. This case describes use of O ring attachment, a type of stud attachment to provide the benefits to the patient. Prognosis of the patient after the overdenture therapy regarding time, risk and skill is favorable.

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تاريخ النشر	وعاء النشر	عنوان البحث
2003	THE JOURNAL OF INDIAN PROSTHODONTIC SOCIETY (vol.3, no.3, sept.2003)	A MODIFIED INDIRECT WORKING DIE TECHNIQUE FOR FABRICATING PROVISIONAL RESTORATIONS FOR MULTIPLE TEETH.

Abstract: A provisional restoration with accurate marginal fit protects the prepared tooth structure by providing adequate pulpal protection, thermal insulation, good periodontal health, patient comfort, maintenance and function, space maintenance and esthetics, until a definitive restoration is placed. Various direct and indirect techniques of temporization are being used with specific advantages and disadvantages. The use of flexible removable dies instead of traditional dies was claimed by various authors to save time and labor. We can keep flexible dies for future use and references and superior accuracy over conventional technique. The article covers detail step by step clinical and lab procedures for fabrication of provisional restorations using flexible dies to restore cases of crown and bridge.

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تاريخ النشر	وعاء النشر	عنوان البحث
2003	THE JOURNAL OF INDIAN PROSTHODONTIC SOCIETY (vol.3, no. 3, sept.2003)	LAMINAR IMPRESSION TECHNIQUE

Abstract: Making of good accurate impression is an important step in the fabrication of successful prosthetic restoration. The availability of superior materials like elastomers has made making of accurate impression possible. However there is continuous emphasis on superior, time saving, easy and accurate impression making procedures. In this direction triple tray technique of impression making is good variable alternative method having multiple advantages over traditional methods. The laminar technique has the advantage like easier tray selection, occlusal registration, opposing arch impression in one combined impression; precision in injection of wash impression material avoids the presence

of excessive wash impression material and gives sharp details of preparation. The flushing effect of material prevents foreign body reaction in the submucosal tissue.

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تاريخ النشر	وعاء النشر	عنوان البحث
1993	KARNATAK UNIVERSITY, DHARWAD (KARNATAK- INDIA) IN DEC.1993.	AN ACCURACY OF ELASTOMERIC IMPRESSION MATERIALS - IN VITRO STUDY.

Abstract: In this in vitro study I have made a metal (brass) die. Then I have constructed custom trays for this die. This metal die has markings on one surface where I have measured distance between two points with help of scanning electron microscope (SEM). In this study I used four types of elastomeric impression materials. All impressions were poured immediately with type IV gypsum. Then measurements were made by measuring distance between two reference points. Measurements were made under SEM. Collected data was analyzed by statistician and results were obtained. Out of four elastomeric impression materials polyvinylsiloxane impression material with double mix double impression technique in custom tray has shown more accuracy than comparing with other elastomeric impression materials.

قسم علوم طب الأسنان الوقائية

Preventive Dental Sciences Department

ABSTRACT OF THESIS 2009

**Assessment of periodontal status and treatment needs among Beedi factory workers in Harapanahalli town, Davangere district, Karnataka
Rajiv Gandhi University of Health Sciences, Bangalore
J Ind Assoc Dent Spec 2011; 2(2), 13-17**

Abstract: BACKGROUND – Periodontitis is one of the most wide spread chronic disease all over the world and has been indicated as the main cause of tooth loss in adults, the present study was under taken to assess the periodontal status and treatment needs among beedi factory workers. METHODS – An epidemiological cross sectional survey was carried out using Community Periodontal Index of Treatment Needs (CPITN) on 1500 Beedi factory workers aged 19 – 60 years in Harapanahalli town, Davangere district, Karnataka. RESULTS – Shows majority 69.9% had CPI code 2 (Calculus) followed by CPI code 3 (Pocket 4-5 mm) 22%, code 4 (Pocket 6 mm or more) 6.7%, code X (Excluded sextant) 1.3% and code 1 (Bleeding) 0.1%, as for treatment needs majority 92.1% required TN 2 - Indicates need for professional cleaning of the teeth and removal of plaque retentive factors with oral hygiene instructions to the patient, followed by TN 3 - Indicates need for complex treatment involving deep scaling, root planning and more complex surgical procedures (7.9%) and TN 1 – Oral Hygiene Instructions (0.1%). CONCLUSION – The study presented high prevalence of periodontal disease among Beedi factory workers, as age advances the prevalence of disease and treatments needs also increased. Male workers required more complex treatment (TN 3) than females.

تاريخ النشر	وعاء النشر	عنوان البحث
2011	J Ind Assoc Dent Spec 2011; 2(1), 1-5.	Knowledge and Attitudes of undergraduate dental students in the oxford dental college, Hospital research Centre, Bangalore toward patients with HIV/AIDS.

Abstract: Background – HIV/AIDS represents one of the major health problems throughout the world and its effective treatment not only require knowledge but also appropriate interpersonal attitude as well. The present study eas under taken to investigate knowledge and attitude of dental under graduate students towards HIV/AIDS patients. Methods – a cross sectional questionnaire survey was carried out among 282 dental undergraduate students at the oxford dental college hospital and research Centre Bangalore. Chi square test was used to the significant

association of knowledge and attitude in relation to the year of study and ANOVA was used to find the changes in the mean scores of knowledge and attitudes according to the year of study. Results – shows majority 76.6% of the students had moderately adequate knowledge, first year students showed highest adequate attitude among the group in terms of social interaction. The adequate attitude for legal personal risk and consequences was highest in the final year students. Conclusions – over all the knowledge and the attitudes of the dental undergraduate students was found to be moderately adequate to adequate. Though gap was present to certain items, majority 90.7% of them are willing to treat individuals with HIV/AIDS.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	J Oral Health Res 2010;1(3); 113-117	Estimation of age using third molars among Indian juveniles: a retrospective analysis using panoramic radiographs.

Abstract: Aims – To determine the age of juvenile patients based on third molar development and to compare the developmental stages of all third molars between the genders using panoramic radiographs in juvenile population belonging to namakkal district, Tamil nadu, India. Methods – the data was collected retrospectively from 280 panoramic radiographs in KSR institute of dental science and research outpatient department. A retrospective analysis of these panoramic radiographs was conducted to assess the developmental stages of third molars given by Dimerjian et al. Results – it was found that there was no significant difference in age between all the four third molars for each developmental stage between the genders. There was a significant difference in developmental stages when comparison was made between upper right 3rd molar with lower left 3rd molar and upper left 3rd molar with lower right 3rd molar among the study population. There was a significant difference in the developmental stages between the genders of maxillary molars. Conclusions - the present study results may provide Indian references for third molar examination and age estimation for the purpose of forensic investigation among the juvenile population belonging to Namakkal district in Tamil nadu, India.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	J Ind Assoc Dent Spec 2011; 2(2), 1-3.	Comparative study to evaluate the effectiveness of silica nano particles and calcium carbonate as abrasive in dentifrices in reducing plaque 'A randomized control trial'

Abstract: OBJECTIVE: To evaluate and compare the effectiveness in reducing plaque of a dentifrice containing silica nano particle as abrasive and a dentifrice containing calcium carbonate as abrasive after a single brushing and over a four-week period of daily brushing. METHODS: A total of 318 subjects completed this randomized, triple blinded, parallel-group clinical study. Twenty-four hour plaque buildup was scored at baseline and after two and four weeks of twice-daily use of the products. Additionally, controlled single brushing with the assigned dentifrice, followed by post-brushing plaque assessment, was performed at the start (baseline visit) and end (Week-4 visit) of the study. Plaque was scored using the Turesky, et al. modification of Quigley-He in Index. RESULTS: Mean baseline whole mouth plaque scores for the silica nano particle and calcium carbonate dentifrice groups were 4.2 ± 0.83 and 4.3 ± 0.831 , respectively, and the difference was not statistically significant. Within-group analysis showed that both products significantly reduced the amount of plaque over the four-week period ($p < 0.001$). Between-group analysis showed that brushing with the silica nano particle dentifrice exhibited significantly greater reduction in plaque scores ($p < 0.05$) after four weeks of brushing as compared to the calcium carbonate. After four weeks, the mean plaque reduction for the silica nano particle dentifrice group (0.4 ± 0.11) was significantly less than that observed for the calcium carbonate dentifrice group (1.7 ± 0.412). Mean baseline whole mouth gingival index scores for the silica nano particle and calcium carbonate dentifrice groups were 2.3 ± 0.732 and 2.4 ± 0.638 , respectively, and the difference was not statistically significant. Within-group analysis showed that only silica nano particle abrasive toothpaste significantly reduced the amount of gingival inflammation over the four-week period ($p < 0.05$). Between-group analysis showed that brushing with the silica nano particle dentifrice exhibited significantly greater reduction in gingival index scores ($p < 0.05$) after four weeks of brushing as compared to the calcium carbonate dentifrice. After four weeks, the mean gingival index score reduction for the silica nano particle dentifrice group (1.4 ± 0.683) was significantly less than that observed for the calcium carbonate dentifrice group (1.9 ± 0.803). CONCLUSION: The results of this study indicate that the silica nano particle dentifrice toothpaste was more effective than the calcium carbonate dentifrice toothpaste in plaque removal and in gingivitis reduction after four-week period of twice daily, unsupervised tooth brushing.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	A journal of Dentistry, vol 2(1), oct 2011, 10-17.	Cross Infection Control in Impression Making Procedures – A Pilot Survey Research & reviews

Abstract: Dental care professionals are at high risk of cross infection while treating patients. This occupational potential for disease transmission becomes evident when it is considered that most human microbial pathogens have been isolated from oral secretion. The present survey was conducted with the aim of investigating the knowledge, attitudes, and behavior of dental staff and students toward cross-infection control during the procedure of impression making. A questionnaire consisting of 16 questions was designed to assess the details of Impression and disinfection, including how impressions were disinfected. The questionnaire was pilot tested initially, to check for content and administrative aspects, by sending it to the dental staff and students of a dental college in Tamil Nadu. A total of 163 respondents completely filled the questionnaire. The majority of the response was from dental students (87.1%) and the remainder was from the B.D.S and M.D.S. staff with 4.3 and 8.6%, respectively. The percentage frequencies of male and female respondents are 30.1 and 69.9% respectively. The results showed that out of these 163 respondents, “when asked about the material used for making primary impressions, majority of the respondents used Alginate for making primary impressions (89.6%). More than half or 54.6% of the respondents said that if the impression was not disinfected, there was no need to disinfect the stone cast. The results of the present study showed that the knowledge of dental students and staff is insufficient about infection control procedures. A stress should be laid in the curriculum of students about the knowledge of cross-infection control.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	J Ind Assoc Pub Health Dent 2011; 18(1), 642-645.	Occupational Hazards in Dentistry – A review.

ABSTRACT: Dental personnel and their patients are susceptible for number of occupational hazards. These cause the appearance of various ailments, specific to the profession, which develop and intensify with years. In many cases they result in diseases and disease complexes. The noise of suctions, saliva ejectors, turbines, engines, amalgamators, compressors, etc., causes impaired hearing. Dental medicaments and materials as well as disinfectants used in dental surgeries cause allergies and skin diseases. Strained posture at work destabilizes the osteoarticular system and causes overburdening of the spine. The overburdening also affects certain groups of muscles and joints. This brings about diseases of the musculoskeletal system and of the peripheral nervous system. Also, the functioning of the respiratory, cardiovascular and alimentary systems is disrupted. Close contact with the patients, with their saliva and blood, exposes the dentist to occupational biohazards, mainly of the contagious kind. The adverse effects of mercury and nitrous oxide are well-known, less so those of visible blue light.

Many clinical situations may be a source of stress for the dental practitioner. Moreover, a limited surgical area and its artificial lighting results in eye strain, conjunctivitis, blurred vision or shortsightedness. Hence relying on literature the present paper discusses some selected occupational hazards.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Ind Jour Dent Res 2012; 23(02), 135-139.	Comparison def index with Nyvad's new caries diagnostic criteria among three to six years old children at a school at Bangalore city.

Abstract: Background: Dental caries is a multifactorial disease with varying clinical picture and its diagnostic criteria is complicated, when initial lesion is considered. Hence, there is a need for an index which measures cavitated, non-cavitated, and initial lesion in dental caries. So, the purpose of this study was to compare the of def index with Nyvad's new diagnostic criteria. **Materials and Methods:** A total of 249 school children in the age group of three to six years were selected for the study from Sajjan Rao School at Bangalore city. Children teeth were cleaned and dried with cotton rolls and chip blower. The dental caries examinations were conducted under standardized conditions using plane mouth mirrors and explorers with the help of artificial illumination. The diagnostic criteria used were deft and d, e, and f component of Nyvad's new caries diagnostic criteria. Mann Whitney 'U' test was used to compare the two indexes at five percent significant level. **Results:** The mean value for deft was 2.48 and the mean for d, e, and f component of Nyvad's new caries diagnostic criteria was 3.18 which shows statistically significant difference with *P* value of <0.05. **Conclusion:** The result obtained by Nyvad's new caries diagnostic criteria produces values much higher than those with def caries index system. Hence, Nyvad's new caries diagnostic criteria can be used to diagnose dental caries at the initial stages, which in turn will reflect exact prevalence of caries.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	J Forens Dent Scien 2012; 4(2), 77-81.	Palatal rugae shape: An adjunctive Forensic identification parameter.

Abstract: Aim: The present study is aimed at delineation of different types of rugae in two different populations and developing a discriminant function for the same. **Materials and Methods:** A total of 940 subjects were included in the present study. The sample consisted of 466 subjects from South Indian population

and 474 from North Indian population in the age group of 18-23 years. Neo colloid Easy flow(TM) alginate impressions of maxillary arch were made and casts were immediately poured with Type IV dental stone. A sharp graphite pencil was used to delineate the rugae and patterns were recorded according to the classification given by Kapali *et al.* The association between different population and different sexes was analyzed with chi-square test and a stepwise discriminant function analysis was also performed to develop a discriminant formula. **Results:** Wavy, curved and straight rugae were the most common forms in both groups. Chi square analysis for association between rugae shape and population groups showed significant differences among all the rugae patterns at the $P < 5\%$. Chi-square analysis for assessing sex differences in the rugae shapes showed significant difference in straight, unification and circular type. Five rugae shapes – curved, wavy, nonspecific, unification and circular – were selected for discriminant function. **Conclusion:** The discriminant function equation obtained from the different rugae shapes in the present study was highly accurate enough to distinguish the Southern and Northern Indian population with the classification accuracy of 87.8%. Thus to identify a specific population, separate discriminant function formulae have to be developed. Hence, the study of palatal rugae is one of the simple and reliable tools for population identification in forensic science.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	J Ind Assoc Dent Spec 2012; 1(3), 6-9.	Prevalence of periodontal disease among engineering students in the Lucknow city (U.P)

Abstract: Objective: The present study was done with an attempt to assess the prevalence of periodontal disease among engineering students in the Lucknow city (U.P). **Material & Methods:** A descriptive cross-sectional study was conducted on randomly selected 505 engineering students in age group 19 to 26 years using a self structured proforma. Community Periodontal Index was used for examination of subjects. The statistical analysis was done using SPSS software version 12.0. Frequency, percentage and comparison of males and females was done using the chi-square test. **Results:** Majority (95.05%) of the subjects cleaned their teeth by using toothbrush. Very few of the subjects used twig (3.56%) and fingers (1.39%) for cleaning teeth. More than half 326(64.55%) had calculus, 166(32.87%) had bleeding gums, 12(2.38%) had pocket 4-5 mm. However only 1 (0.20 %) had pocket >6 mm. In all the age groups majority of the subjects had higher prevalence of calculus followed by bleeding. Only in the age group of 19-20, shallow pockets in 12(9.3%) and deep pockets in 1 (.8%) subject were seen. In both males and females, majority of the subjects 99.8% had healthier scores in terms of loss of attachment. **Conclusion:** Majority of the subjects cleaned their teeth by using

toothbrush & toothpaste. In all the age groups majority of the subjects had higher prevalence of calculus followed by bleeding. There was no association found between gender and periodontal disease. Overall prevalence of periodontal disease was 2.58%.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	J of Contemp Dent 2013: 1(2), 131- 135.	Bioterrorism in India – A future concern.

Abstract: to achieve certain goals. With increased availability of biological agents and the technical information to produce them, bioterrorism may become the weapon of choice in future. The implication for public health is that events of infection of a number of people is a cause of concern and carry different responsibilities for municipal, provincial and Government departments. Biological agents can be used to spread infection through the air, water or through food. As in the past few years there have been various terrorist attacks in the world. India has been and still is a target for terrorist attacks. Therefore it has become important for our country to remain alert especially in the field of public health.

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ABSTRACT OF THESIS 2002

COMPARISON BETWEEN THE EFFECT OF FIXED AND REMOVABLE SPACE MAINTAINERS ON THE POPULATION OF ORAL LACTOBACILLUS AND STREPTOCOCCUS MUTANS BACTERIA AND THEIR ACIDOGENICITY Al-Azhar University

Abstract: Space maintainer is a successful device to preserve tooth space, functions and esthetic but it may cause increase in the number of oral flora specially the cariogenic types. The effect of post two weeks insertion of band and loop (a fixed space maintainer) and acrylic partial denture (a removable space maintainer) on the numbers of oral *Streptococcus mutans* and lactobacilli organisms in 4-7 years old children was evaluated. In this study, the number of MS insignificantly increased in both fixed and removable groups. Whereas, lactobacilli decreased in the first group and increased in the latter with insignificant values. Moreover, Alban test was reactive in the presence of lactobacilli associated with or without MS. Also its score was directly proportioned to the number of lactobacilli. Finally, alginate caused insignificant reduction of both MS and lactobacillus counts.

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تاريخ النشر	وعاء النشر	عنوان البحث
2010	Al-Azhar Journal of Dental Science, July; Vol. 13, (3): 283-8. (2010)	LONGITUDINAL FOLLOW UP OF CALCIUM HYDROXIDE-FORMOCRESOL MIXTURE PULPOTOMY IN HUMAN YOUNG PERMANENT TEETH.

Abstract: The purpose of this study was to evaluate the long-term effect of calcium hydroxide-formocresol mixture on the pulp tissue of human young permanent teeth. **Methodology:** The mixture was applied to vital pulp orifices of six pulpotomized young permanent teeth. These teeth exhibited recent pulp exposure, three of them were anterior teeth (pulp exposed due to trauma) while the remaining teeth (pulp exposed due to caries excavation) were posterior teeth. The pulpotomized teeth were followed up clinically and radiographically at certain intervals for three successive years. **Results:** All teeth (100%) showed dentine bridge formation, continuous root lengthen, apical closure, normal pulp and supporting tooth structures. **Conclusion:** Calcium hydroxide-formocresol mixture can be used successfully in vital pulpotomized young permanent teeth and there is no need for post-pulpotomy endodontic treatment.

تاريخ النشر	وعاء النشر	عنوان البحث
2011	World Applied Sciences Journal, 12 (4): 552 – 558. (2011)	EFFECT OF BLACK TEA ON SOME CARIOGENIC BACTERIA

Abstract: The aim of this study was to evaluate the antimicrobial effect of black tea against *streptococcus mutans* and *lactobacillus* species in adult Egyptian citizens. The unstimulated saliva samples were obtained from participants (pre, immediately post and after 1 hour of tea drinking) by spit in sterilized containers. The samples were added to transporting media and transmitted to bacteriological laboratory for culturing and counting. Results showed that the black tea beverage had a highly significant effect on reducing the cariogenic bacterial counts. This reduction reached to 60 and 99.9% of *streptococcus mutans* and 91 and 98% of *lactobacillus* in the immediately post and after 1 h of tea drinking samples, respectively. Also, the moderate consumption of tea (3-4 cups/day) exhibited extremely low values of *lactobacillus* (2.4×10^4 - 4.7×10^3) and DMF score (5.6). It could be concluded that, black tea exhibited strong antimicrobial effect against *streptococcus mutans* and *lactobacillus* bacteria. Consequently it is recommended as an effective natural beverage to combat dental caries.

تاريخ النشر	وعاء النشر	عنوان البحث
2012	World Appl. Sci. Journal, 19 (9): 1327-133. (2012)	ANTIMICROBIAL EFFECT OF TEA AND TEA WITH MILK BEVERAGES ON ORAL STREPTOCOCCUS MUTANS AND LACTOBACILLI

Abstract: The aim of this study was to compare the antimicrobial effects of black tea to that of tea with milk (TM) against oral *Streptococcus mutans* and *Lactobacillus* sp. in Egyptian children. Three saliva samples were obtained from children (pre, immediately post and after 1 hour of beverage drinking) by spitting in sterilized containers. The samples were added to transporting media and transmitted to bacterial lab for culturing and counting. The results showed that tea and TM beverages had a highly significant bacterial counts reduction against these cariogenic bacteria by different rates (43.6% - 83.3%). Conclusions; tea and TM exhibited a magnificent antimicrobial effect against *S. mutans* and *Lactobacillus* bacteria. Consequently, they are recommended as effective natural anti-cariogenic beverages.

تاريخ النشر	وعاء النشر	عنوان البحث
2012	Al-Azhar Journal Of Dental Science, April, Vol. 15, (2): 105-110. (2012)	BEHAVIORS OF INFANT FEEDING AND THEIR EFFECTS ON THE DENTAL ARCHES. (CROSS SECTIONAL STUDY ON A SECTOR OF EGYPTIAN CHILDREN)

Abstract: A cross-sectional study was carried out on a random sample of 916 children (467 males and 449 females) and ranged in age from 3 to 5 years old. The sample was obtained from Al-Azhar Pre and Primary Schools-Nasr City; where they considered as a restricted sector representing the Egyptian children. The aim of the study was to assess infant-feeding patterns and to analyze the influence of infant-feeding patterns on prevalence of non-nutritive sucking habits. Infant-feeding practices were fatherly categorized as exclusive breast-feeding, predominant breast feeding, complementary breast-feeding or exclusive bottle feeding. Sucking behavior data were collected via questionnaires completed by parents. The results showed presence of an almost interrelationship between Infant-feeding and occurrence of sucking habits; a finding which could throw the light on its significance in prevention of such habits; or at least minimizing them. Various occlusal abnormalities were observed in association with the sucking behaviors; which might be a more or less duration dependent. Those include anterior open bite, posterior cross bite and increased over jet. Moreover, the findings suggest further current recommendations for discontinuing those habits. Hence, prevention of habit-related malocclusions seems to be yet one more reason for promoting breast feeding practices.

تاريخ النشر	وعاء النشر	عنوان البحث
2013	Egyptian Dental Journal. Vol. 59, No. 1: 1009-1019. (2013)	DENTAL CARIES ASSESSMENT IN EGYPTIAN PRESCHOOL CHILDREN

Abstract: The Aim of the study: Was to assess the dental caries in primary teeth of Egyptian preschool children (2-6y old) in relation to some socioeconomic, demographic and behavioral variables. **Subjects and methods:** 550 children (276 girls and 274 boys) from different Governorates were random selected and examined by a survey team using simple diagnostic tools. The collected data through questionnaires and examination was tabulated and statistically analyzed. The Egyptian children were dividing according to geographic distribution into three (Cairo, Delta and Upper Egypt) groups. Prevalence and dmft indices for each

area were calculated. **Results:** The prevalence and dmft indices for Egyptian children were 66.37% and 2.98, respectively. However, females recorded a significant lower prevalence (61.23%) and dmft indices (2.65) in compare to the males (71.53% and 3.27, respectively). Moreover surprisingly, the Upper Egypt children had the lowest risk of caries prevalence (53.1%) and incidence (dmft = 1.71) in compare to the Cairo children (72.3% and 3.48, respectively) and Delta children (67.9% and 3.18, respectively). Also, caries is directly proportion with age, carbohydrates consumption and presence of medical or psychological disturbances; while it is inversely proportion with increasing of tooth brushing numbers; and levels of income and education. **Conclusion:** Dental caries still the disease number one affecting the children in Egypt and may be all over the world. Dental caries in Egyptian children needs more investigations, attention and dental health programs to minimize the caries risk factors and subsequently decrease caries prevalence and severity.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Egyptian Dental Journal. Vol. 59, No. 2: 1897-1912, April, 2013.	EFFECT OF CALCIUM HYDROXIDE- FORMOCRESOL MIX ON PULP TISSUE OF YOUNG PERMANENT TEETH

Abstract: The aim of the study: was to compare the histological effects of Calcium hydroxide pulpotomy, Formocresol pulpotomy and Calcium hydroxide-Formocresol pulpotomy on the pulp tissue of the pulpotomized young permanent teeth in dogs and evaluate their clinical and radiographic effects on the pulp of the pulpotomized young permanent teeth in human. **Methodology:** Three pulpotomy techniques were performed in 36 young permanent teeth of 3 Mongolian dogs and 48 young permanent teeth of human (lower first molar tooth) in the period from 2003-2007. Teeth were divided according to capping materials into 3 equal groups; Calcium hydroxide (Ca(OH)₂ group, Formocresol (FC) group and Calcium hydroxide- Formocresol [Ca(OH)₂ + FC] group. **Results: I- In dogs:** histological examination showed formation of dentin bridge in 75% & 100% of the first and third groups teeth respectively while 100% of FC group teeth showed vital pulp without dentine bridge formation after 24hours, 6weeks and 3months intervals. **II- In human:** clinical and radiographic assessment referred 81.25%, 93.75% and 100% success rate respectively after 3months follow up. **Conclusions:** Calcium hydroxide-Formocresol mix can be used successfully as pulp capping for young permanent teeth.

تاريخ النشر	وعاء النشر	عنوان البحث
2013	Al-Azhar Journal of Dental Science; April, Vol. 16, (2): 157-164. (2013)	EFFECT OF CALCIUM HYDROXIDE-FORMOCRESOL MIXTURE ON PULP TISSUE OF PRIMARY TEETH: (CLINICAL AND RADIOGRAPHIC STUDY)

Abstract: The aim of this study was directed to evaluate the effect of calcium hydroxide-formocresol mix on the pulp tissue of children primary teeth clinically and radio graphically. **Methodology:** Three vital pulpotomies were performed in 60 badly decayed primary molars indicated for pulpotomy. Teeth were classified randomly according to capping materials into 3 equal groups; Calcium hydroxide (Ca(OH)₂ group, Formocresol (FC) group and Calcium hydroxide-Formocresol [Ca(OH)₂ + FC] group. Clinical and radiographic assessments were performed for each tooth after 24hours, 6weeks and 3months intervals. **Results:** clinical and radiographic assessments of the three groups referred 85%, 90% and 95% success rates respectively, after 3 months follow up. **Conclusions:** Calcium hydroxide-Formocresol mix can be used successfully as pulp capping material for recently exposed vital primary teeth.

تاريخ النشر	وعاء النشر	عنوان البحث
2014	Egyptian Dental Journal. Vol. 60, No. 1: 861- 871. (2014)	ROLE OF MUTANS STREPTOCOCCI AND LACTOBACILLI BACTERIA IN DENTAL CARIES THROUGH THE DENTITION STAGES

Abstract: Aim of the study: was to draw the relationship between the main cariogenic bacteria and dental caries experiences through all dentition stages. Subjects and methods: Two hundred healthy individuals (71 females and 129 males) living in Cairo, Egypt were randomly selected. The individual data were recorded in simple questioner. They were examined using simple diagnostic tools. The caries (prevalence, dmft and DMFT) indices were recorded. The individuals were divided according to the stage of dentition present into 3 groups (primary, mixed and permanent). Fresh unstimulated saliva (first thing in the morning or at least 2 hours after meal) sample was obtained from each individual by spitting in sterilized containers. The samples were added to transporting media and transmitted to bacterial lab for culturing and counting. Results: Mutans

Streptococci spp. (MS) and lactobacilli spp. (LB) showed irregular increases in counts with age. Mutans Streptococci average reported 9.4×10^5 , 9.9×10^5 and 1.2×10^6 colony forming unite (CFU) in primary, mixed and permanent dentition stages, while Lactobacilli average reported 6.7×10^4 , 7.9×10^4 and 1.3×10^5 (CFU) at the same stages respectively. The prevalence and dmft/DMFT indices for Egyptian children in primary and mixed dentition groups were 78.33% & 4.35 and 72% & 3.42 respectively; while they were 86.6% & 6.83 in permanent dentition group. The females showed lower MS (6.3×10^5 & 9.2×10^5) and LB (2.9×10^4 & 5×10^4) counts than males (1.1×10^6 & 1×10^6) and (8.3×10^4 & 9.6×10^4) respectively; during the primary and mixed dentition stages. While in the permanent stage the males reported relatively lower counts (1.1×10^6) and (4.8×10^4) than females (1.1×10^6) and (2.6×10^5). In this context, females showed lower caries experiences (prevalence and dmft/DMF indices) during the primary (55.55% & 3.83) and mixed (55.55% & 2.89) stages than males (88.1% & 4.57) and (81.25% & 3.72) respectively. As in the permanent stage the males (80% & 4.75) were less suffering than females (90.9% & 10.11%). Conclusion: Mutans Streptococci and lactobacilli are directly proportional with age and caries incidence but lactobacilli are more sensitive to caries rate. Dental caries in Egyptian people needs more attention, investigations, and dental health programs to minimize the caries experiences.

ABSTRACT OF THESIS 2012

“Effect of Cleft Lip and Palate Repair On Craniofacial Growth - A Comparative Study Between Operated And Unoperated Cleft Lip And Palate Patients In Southern Karnataka Population.”

Rajeev Gandhi University of Health Sciences, Karnataka India.

Abstract: Objective: “Effect of Cleft Lip and Palate Repair On Craniofacial Growth - A Comparative Study Between Operated And Unoperated Cleft Lip And Palate Patients In Southern Karnataka Population.” Study design: For the dissertation a sample of 180 subjects were selected. Out of them, 90 were operated and 90 were unoperated complete unilateral cleft lip and palate individuals. The subjects were divided into three age groups of 3-5 years, 8-10 years and 20-25 years comprising of 30 patients in each group. Methods: The following measurements were evaluated: angle and length of cranial base; maxillary spatial positioning and length; mandibular spatial positioning; morphology and length; maxillo-mandibular relationship; and vertical facial length. Results: The results suggest that the lip and palate repair has a significant influence on certain areas of the craniofacial complex, mainly the maxilla and resulting in retarded growth of maxilla. Statistics: Comparative analysis of the means between the groups was performed on the basis of Student’s t test at the significance levels of 5%. Conclusion: The most significant findings consequent to lip and palate repair consisted of retardation of maxillary growth results in mid face deficiency beyond acceptable sagittal limits.

تاريخ النشر	وعاء النشر	عنوان البحث
2011	Orthodontics - The art and practice of dentofacial enhancement. Volume 12, no. 3: 2011. page-196-201.	Changes in the morphology of the labial alveolar bone of protruded permanent maxillary incisors secondary to orthodontic alignment.

Abstract: Aim: treatment of protruded permanent maxillary incisors involves retraction. Lingual positioning of protruded incisors improves the width of the attached gingiva. This study was conducted to document changes in the buccal alveolar bone upon retraction of protruded permanent maxillary central incisors. Methods: cephalometric radiographs of 13 patients ages 12 to 18 years, whose orthodontic retreatment involved lingual positioning of protruded permanent maxillary central incisors were selected. Results: comparison of tracing from

radiographs taken before and after treatment indicated that the alveolar bone height increased in 76.9% cases. In addition , a significant positive correlation (r= 0.95) was found between the changes in the distance from the M point to the incisal edge and alveolar bone height. Conclusion: the present study indicated that an increase in the amount of buccal alveolar bone was a result of orthodontic treatment that involved lingual positioning of protruded maxillary permanent central incisors.

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تاريخ النشر	وعاء النشر	عنوان البحث
2011	International Journal of Clinical Pedriatic Dentistry. Volume 4 no. 2, 2011. page no. 109- 111.	Perception of facial profile - how you feel about yourself.

Abstract: Objective: The aim of this study was to determine how aware the individuals were of their own profile and to compare the orthodontist’s perception of an attractive facial profile with those of laypeople, dental students and orthodontic patients. Materials and Methods: The study comprised of a total of 200 subjects divided into 4 groups of 50 subjects each-laypeople, first year dental students, final year dental students and orthodontic patients. Participants answered a questionnaire regarding facial profile and their expectations from orthodontic treatment. The facial profile photographs of participants were analyzed by two orthodontists separately who matched the individual to the depicted silhouettes. Agreement between participants and orthodontists was evaluated using the statistic χ^2 test. Results: Dental students and orthodontic patients were more aware of their facial profile as compared to the laypeople. The four groups were different in their ability to recognize their own profile. The difference in profile perception between orthodontists and subjects was statistically significant (p<0.05). Conclusion: Class I profiles were perceived to be the most attractive by all the groups and profiles with a protrusive mandible were perceived to be the least attractive. Final year dental students and orthodontic patients were more accurate in identifying their own profile.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	European journal of pediatric dentistry. Volume13, March 2012, page no.29- 34.	Applicability of two methods of mixed dentition analysis in a contemporary Indian population.

Abstract: Background and Objectives More than 10 years’ experience in implementing the Tanaka Johnston and Moyers methods has shown that it

overestimates the sizes of unerupted canines and premolars when used in other populations. This study was designed to assess the applicability of the two commonly used methods of mixed dentition analysis and to attempt to derive a more accurate and precise formula to predict the sizes of the unerupted premolars and canines in a sample of Indian population. Methods The sample included 200 study models (100 male,100 female).Tanaka Johnstons and Moyers equations were applied to this sample and the mean differences between the actual and estimated tooth widths were determined. New regression equations were derived using lower first molars and incisors as the predictors. Results The mean difference between the actual and estimated values of canines and premolars using Tanaka Johnston’s and Moyers methods were clinically and statistically significant. Therefore new regression equations were derived taking lower first molars and incisors as the predictors for both sexes. On validation, these equations were found to be accurate and precise for this population. Conclusion It is recommended to use these equations as a method of mixed dentition analysis for the Indian population.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Journal of orofacial research. Volume 1, January 2012, issue 1, page no. 104- 108	Orthopedic Combination pull Headgear with an Expanded inner Bow for Class II Correction-A case report.

Abstract: Class II skeletal problem is one of the common malocclusion which orthodontists encounters regularly.various methods to correct this malocclusion includes growth modulation during growth period, camouflage or surgical. This case report presents a case of class II division 1 malocclusion on skeletal class II jaw bases due to prognathic maxilla managed by using headgear only. Esthetic results achieved with class I molar relationship.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	LAP LAMBERT Academic Publishing, ISBN: 978-3-659-17990-7	Book---TITLE--Growth in cleft lip and palate subjects- (Mystery of cleft lip and palate growth)

Abstract: We are much aware of growth of a normal individual. Growth is different in a patient of cleft lip and palate as compared to growth of a normal individual and the variation in growth depends upon the severity of cleft lip and palate i.e. unilateral, bilateral, complete or partial cleft. Management of cleft lip

and palate cases involves various surgical procedures like lip repair, palate repair, lip revision etc. These surgical procedures affect the growth in craniofacial region. It means that growth plays an important role in treatment plan in such cases. Hence this research work was carried out to find out the effects of surgery of cleft lip and palate during childhood, by comparing growth among operated and unoperated subjects.

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تاريخ النشر	وعاء النشر	عنوان الكتاب
2012	LAP LAMBERT Academic Publishing, Book ISBN 13: 978-3-659-30296-1	Book---TITLE—Vitality Test – path to diagnosis. 

Preface: Dental caries is one of the most common pathology affects tooth. If caries not treated early it progress to dental pulp. Initially the pulp injury is reversible but if not treated early it leads to irreversible pulpitis means that the tooth becomes non vital and further it causes pathology at periapical region. For proper treatment of pulp it is important to differentiate between reversible and irreversible pulpitis because the treatment modalities are different for reversible and irreversible pulpitis. For accurate diagnosis along with case history various diagnostic methods are available called as vitality test. This book includes various diagnostic procedures available for vitality tests. This provides important information regarding the indications, contraindications, advantages and disadvantages of different types of vitality test so that one can select an appropriate test to diagnose the pulpal disease accurately and plan the treatment accordingly.

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ABSTRACT OF MASTER THESIS 2006

Effect of Periodontal Therapy on C-Reactive Protein Level As A Systemic Risk For Cardiovascular Disease.

Al-Azhar University

Abstract: **BACKGROUND:** Elevated levels of C-reactive protein (CRP) are associated with increased risk of atherosclerosis. Since periodontal disease has been suggested to act as a risk factor for atherosclerosis, we examined the effects of standard periodontal therapy on serum CRP levels. **METHODS:** Thirty Six subjects were divided into three equal groups; group (I) were include 12 atherosclerotic patients suffering from adult periodontitis, group (II) were include 12 adult periodontitis patients free from any systemic disease and group (III) were include 12 healthy subjects. Group I and II patients are exhibited to mechanical plaque control. As regard to group III subjects, no therapy was done. All subjects were evaluated at the beginning of the study and three month interval (groups I and II) for: serum level of C-reactive protein and clinical periodontal parameters. **RESULTS:** recorded levels of CRP were declined after periodontal therapy. The percentage changes in serum CRP after periodontal therapy was (- 36 %) for group I and (- 54%) for group II. **CONCLUSIONS:** Severe adult periodontitis is associated with elevated level of serum CRP. Such levels are higher in periodontitis patients suffering from atherosclerosis than those having periodontitis only. Finally periodontal therapy seems to decrease serum C- reactive protein levels and could have the potential to decrease the risk for future acute cardiovascular events.

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ABSTRACT OF DOCTORAL THESIS 2010

Detection of Some Inflammatory Systemic Markers in Peripheral Blood of Periodontitis Patients.

Al-Azhar University

Abstract: **BACKGROUND:** Destructive periodontal diseases, when left untreated, become a chronic inflammatory condition. Periodontally associated inflammatory processes contribute to an increase in the levels of local and systemic inflammatory mediators, we assessed blood levels of some markers of systemic inflammation, and furthermore we evaluated the association between subgingival microbiota and levels of these biomarkers. **METHODS:** Forty severe chronic periodontitis patients and twenty healthy controls were selected. Periodontitis patients were subjected to nonsurgical periodontal therapy. All subjects were evaluated at first and three months later (for periodontitis patients) for blood

levels of some markers of systemic inflammation, clinical periodontal parameters and subgingival levels of four periodontal pathogens. **RESULTS:** Periodontitis patients showed statistically significantly higher mean markers of systemic inflammation including Fibrinogen level, WBC count and ESR than healthy controls group. After periodontal therapy, there was a statistically significant decrease in all mean values of markers. Subgingival microbiota levels of the selected four periodontal pathogens after therapy, were positively related with levels of markers of systemic inflammation. **CONCLUSIONS:** Elimination of periodontitis reduces markers of systemic inflammation, and hence the risk for atherosclerosis and CVD.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Tanta Dental Journal – January 2012	Clinical And Microbiological Evaluation Of Moxifloxacin Versus Amoxicillin- Metronidazole, As An Adjunct To Non-Surgical Periodontal Therapy In Chronic Periodontitis Patients.

Abstract: INTRODUCTION: Periodontitis is an infection that results from imbalance between periodontopathic microorganisms and the local and systemic host defense and is characterized by a progressive destruction of the periodontal tissues. The progression of the disease is related to the colonization of periodontal pathogens. Several antibiotics have been studied in periodontal treatment including tetracyclines (e.g., doxycycline) and metronidazole, frequently combined with amoxicillin. However, problems of bacterial resistance or drug allergy suggest that alternatives for the currently used antibiotics may be needed. **AIM OF THE STUDY:** Clinical and microbiological evaluation of moxifloxacin as an adjunct to non-surgical periodontal therapy in chronic periodontitis patients. **SUBJECTS AND METHODS:** Thirty untreated severe chronic periodontitis patients were selected to participate in the present study. Patients were assigned randomly into 2 groups (15 patients for each group), according to treatment modality; *Group I* underwent a non-surgical periodontal therapy + Moxifloxacin 400mg. *Group II* underwent a non-surgical periodontal therapy + Amoxicillin 250 mg + Metronidazole 250 mg. Clinical parameters were used to evaluate the periodontal status of each subject in both groups at baseline, and 3 months after completion of periodontal therapy; Microbiological procedures included evaluation of levels of *Aggregatibacter (Actinobacillus) actinomycetemcomitans (Aa)*, *Porphyromonas gingivalis (Pg)*, *Prevotella intermedia (Pi)* and *Tannerella forsythia (Tf)*; in periodontal pockets; of all subjects at baseline and 3 months after completion of periodontal therapy for both groups. **RESULTS:** There was no statistically significant difference between mean % reductions in GI, PI, PPD and CAL in the two groups. On the other hand, there was no statistically significant difference between mean % reductions in

total viable counts of the selected periodontal pathogens in the two groups.
CONCLUSION: Moxifloxacin could be used as a strategic alternative to amoxicillin-metronidazole as an adjunct to non-surgical periodontal therapy in chronic periodontitis patients in case of bacterial resistance or drug allergy to amoxicillin-metronidazole.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Al Azhar Dental Journal – October 2012.	Effect of initial periodontal therapy on receptors for advanced glycation end product in type 2 diabetes with periodontitis.

Abstract: Hyperglycemia increases RAGE expression and accumulation of AGEs in periodontium stimulates migration of monocytes. Once in the tissue, AGEs interact with receptors for AGEs (RAGE) on the cell surface of monocytes; such interaction results in immobilization of monocytes at the local site. This work studied the effect of periodontal therapy on receptors for advanced glycation end product in type 2 diabetes with chronic periodontal disease. Forty subjects aged between 35-60 years were included in two groups: Group I: Thirty patients with type 2 Diabetes mellitus and suffers from chronic periodontitis. This group was classified equally into 3 subgroups according to the history of diabetes; subgroup 1a: with controlled diabetes for a period 5-7 years; subgroup1b: with controlled diabetes for more than 10 years and subgroup 1c: uncontrolled diabetic patients. Group II: ten healthy non-diabetic patients with chronic periodontitis. Blood samples and gingival biopsies were obtained and semi-quantitative determination of RAGE was performed. Diabetic patients with chronic periodontitis had an increase in disease severity assessed as an increase in clinical parameters, including GI, PD and CAL, all these parameters reported increased level reached to statistical significance. Results demonstrated expression of RAGE in gingival tissues of tissues of patients with chronic periodontitis with or without type 2 diabetes. The target cells for RAGE expression were found to be epithelial and endothelial cells. Type 2 diabetes samples stained more intensely than those from healthy subjects. Increased RAGE levels in diabetic periodontitis groups were observed.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Al Azhar Dental Journal – April 2013	Identification Of Middle Mesial Canal In Mandibular First Molars In An Egyptian Population Using Different Diagnostic Methods.

Abstract: Introduction: The aim of this study was to identify the middle mesial canal in mandibular first molars in an Egyptian population using cone beam computed tomography (CBCT), dental operating microscope (DOM) and necked eye. **Methods:** A total of 50 freshly extracted mandibular first molars were collected from an Egyptian population. The root samples were arranged in a plastic mold. The samples were examined using cone beam computed tomography (CBCT), dental operating microscope (DOM) and necked eye. **Results:** The prevalence of the MMC in the selected samples was 14%, 18% and 4% when assessing these samples using CBCT, DOM and naked eye respectively. **Conclusions:** Under the condition of this study, the DOM is the most precise method for detecting the MMC. This is followed by CBCT while the naked eye with endodontic explorer is the least accurate method.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Al Azhar Dental Journal – April 2013	B-Tricalcium Phosphate And Gentamicin As Adjunct To Guided Tissue Membrane In Treatment Of Periodontal Osseous Defects (Clinical Evaluation).

Abstract: This study was directed to evaluate clinically β -tricalcium phosphate and gentamicin as adjunct to guided tissue membrane in treatment of periodontal osseous defects. 40 Patients with chronic periodontitis have at least one intrabony defect (IBC) 3mm on Intraoral periapical radiographs, pocket depth \geq 5mm, and attachment loss \geq 3mm following phase I therapy. Patients will be assigned into 4 groups: gp1: Sites treated with a bioresorbable collagen membrane alone, gp2: Sites treated with a bioresorbable collagen membrane in combination with β -tricalcium phosphate soaked in sterile saline, gp3: Sites treated with a bioresorbable collagen membrane in combination with β -tricalcium phosphate impregnated with gentamicin sulphate 3 mg/ ml, gp4: Sites treated only with open flap debridement . The following clinical parameters were recorded at baseline before surgery, 3 and 6 months after surgery: Probing depth (PPD), Clinical attachment loss (CAL), Plaque index (PI) ,Gingival recession (GR) and Bleeding on probing(BOP). All treatment modalities resulted in clinical improvement in PPD reduction and CAL gain after 6 months. At 6 months, Data showed that gp1 presented CAL gain of 1.57mm & PPD reduction of 2.33mm and gp2 (CAL gain: 2mm; PPD: 3.2mm). gp3 resulted in clinical improvements (CAL gain: 2.67 mm; PPD: 3.67mm), superior to those of the other treatment modalities. gp4 showed the most inferior clinical response of all groups (CAL gain: 1.35 mm; PPD: 1.33mm).The current study failed to demonstrate an added effect of β -tricalcium phosphate implantation in combination with GTR on the healing of intrabony defects compared with GTR alone. Local application of gentamicin, on the other

hand, improved the treatment outcome to an extent that it was statistically significant.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	Al Azhar Dental Journal – July 2013	B-Tricalcium Phosphate And Gentamicin As Adjunct To Guided Tissue Membrane In Treatment Of Periodontal Osseous Defects (Radiographic Evaluation).

Abstract: This study was directed to evaluate radiographically β -tricalcium phosphate and gentamicin as adjunct to guided tissue membrane in treatment of periodontal osseous defects. 40 Patients with chronic periodontitis have at least one intrabony defect (IBC) 3mm on Intraoral periapical radiographs, pocket depth \geq 5mm, and attachment loss \geq 3mm following phase I therapy. Patients will be assigned into 4 groups: gp1: Sites treated with a bioresorbable collagen membrane alone, gp2: Sites treated with a bioresorbable collagen membrane in combination with β -tricalcium phosphate soaked in sterile saline, gp3: Sites treated with a bioresorbable collagen membrane in combination with β -tricalcium phosphate impregnated with gentamicin sulphate 3 mg/ ml, gp4: Sites treated only with open flap debridement . Pre- and six months postoperative standardized Periapical views were recorded using the long cone paralleling technique and film holder to estimate the depth of the intrabony component before and after surgery. The current study failed to demonstrate an added effect of β -tricalcium phosphate implantation in combination with GTR on the healing of intrabony defects compared with GTR alone. Local application of gentamicin, on the other hand, improved the treatment outcome to an extent that it was statistically significant.

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تاريخ النشر	وعاء النشر	عنوان البحث
2014	Journal of International Academy of Periodontology – April 2014	The Use Of Modified Perforated Membrane Barriers Improved Gingival Crevicular Fluid Bone Morphogenetic Protein – 2 Availability In Localized Intrabony Defects (Randomized Clinical Trial).

Abstract: Background: In guided tissue regenerative surgery, membrane perforations may serve as a mechanism for the passage of cells and biologic mediators from the periosteum and overlying gingival connective tissue into the periodontal defects. To test this assumption, this study was designed to evaluate levels of bone morphogenetic protein-2 (BMP-2) in gingival crevicular fluid (GCF) during the early stages of healing for sites treated with modified perforated

membranes (MPMs) as compared with occlusive membranes (OMs). **Methods:** Fifteen non-smoking patients with severe chronic periodontitis participated in this prospective, randomized and single-blinded clinical trial. Each patient contributed two interproximal contralateral defects that were randomly assigned to either an experimental modified perforated membrane group (15 sites) or a control occlusive membrane group (15 sites). Plaque index, gingival index, probing depth (PD), clinical attachment level (CAL) and the relative intrabony depth of the defect (rIBD) were measured at baseline and reassessed at three, six and nine months after therapy. Gingival crevicular fluid samples were collected on day 1 and 3, 7, 14, 21, and 30 days after therapy. **Results:** The MPM-treated group showed a statistically significant improvement in PD reduction and clinical attachment gain compared to the OM control group. Similarly, rIBD was significantly reduced in MPM treated sites as compared with those of the OM group. BMP-2 concentrations peaked in the MPM samples obtained during the early postoperative period (days 1, 3 and 7) with a statistically significant difference compared with OM-treated groups. BMP-2 levels decreased sharply in the samples obtained at days 14, 21 and 30 with non-significant higher levels in MPM samples as compared with those of OM sites. **Conclusion:** Within the limits of the present study, one can conclude that MPM coverage of periodontal defects is associated with a significant initial increase in GCF levels of BMP-2, a factor that could improve the clinical outcomes of guided tissue regenerative surgery.

قسم العلوم الطبية الأساسية

Basic Medical Sciences Department

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	Journal of Applied Polymer Science, Vol. 123, 3725-3733 (2012).	Immobilization of Some Biomolecules onto Radiation-Grafted Polyethylene Beads for Possible Use in Immunoassay Applications

Abstract: Functionalization of polyethylene (PE) beads was accomplished via radiation induced graft copolymerization of acrylic acid/ acrylamide (AAc/AAm) binary comonomer of different compositions onto such beads. Factors affecting the grafting yield were optimized and occurrence of the grafted chains was confirmed by following the FTIR spectra of the grafted beads. SEM analyses were used to follow the variation of the morphology of the grafting and immobilization onto PE beads. Some bio-active molecules such as Follicle-stimulating hormone (FSH), Luteinizing hormone (LH), Thyroid-stimulating hormone (TSH), and Prolactin were immobilized to the radiation functionalized PE beads. The parameters may affect the immobilization process such as degree of grafting, temperature, and pH of the coupling buffer and the coupling period were investigated. The obtained results show that the grafting of AAc offers a better immobilization environment than those of AAm and their copolymer. It is found that the highest immobilization degree would be achieved at pH 7 and 37° for 24 h.

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تاريخ النشر	وعاء النشر	عنوان البحث
2013	J Radioanal Nucl Chem (2013) 295:1273–1281	Synthesis, radioiodination and biological evaluation of novel dipeptide attached to triazole-pyridine moiety.

Abstract: A new dipeptide derivative, ethyl 2-(3-(4-hydroxyphenyl)-2-(2-(4-phenyl 5-((pyridin-4-ylamino)methyl)-4H-1,2,4-triazol-3-ylthio)acetamido)propanamido) 3-(1H-indol-3-yl) propanoate (EHPTIP) was successfully synthesized and radiolabeled with ¹²⁵I by the direct electrophilic substitution method. The non-radiolabeled compound (EHPTIP) was tested as an antimicrobial agent and the radiolabeled derivative was tested as a new imaging agent. The study results showed a good antimicrobial activity of EHPTIP and a good in vitro and in vivo stability of ¹²⁵I-EHPTIP. The bio distribution of the radiolabeled compound showed a high brain uptake of 7.60 ± 0.01 injected activity/g tissue organ at 30 min post-injection and retention in brain remained high up to 1 h, whereas the clearance from the normal mice appeared to proceed via the renal system. Such brain uptake is better than that of currently used radiopharmaceuticals for brain

imaging (99mTc-ECD and 99mTc-HMPAO). As a conclusion, EHPTIP is a newly synthesized dipeptide with a good antimicrobial activity and the radio iodinated EHPTIP which is labeled with 123I could be used as a novel agent for brain SPECT.

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تاريخ النشر	وعاء النشر	عنوان البحث
2012	International Multidisciplinary Research Journal 2012, 2(6):64-70	Therapeutic effect of antimyeloma antibodies conjugated with gold nanoparticles on the growth of myeloma cell line

Abstract: Nanobiotechnology is a field of biomedical application of nanosize system which is a rapidly developing area within nanotechnology among these nonmaterial, gold nanoparticles (AuNPs) which receive a significant attention due to their unique physical, chemical and biological properties. AuNPs and bio-conjugated AuNPs have been widely used in cancer treatment besides other application on cancer detection and diagnosis. In this study the potential therapeutic effects of polyclonal Antimyeloma antibody (AbMM) conjugated to AuNPs in comparison with naked (AbMM) or AuNPs alone in modulation of proliferation capacity in vitro and different stages of MM cell cycle have been evaluated besides evaluation of their effects on tumor growth delay. Effect of AuNPs , (AbMM) and (Nanogold -Antimyeloma Antibodies conjugate) (gold-AbMM) on growth of myeloma cells showed decreasing in multiple myeloma SP2OR (MM) viability with increasing dose of these treatments compared to that of control also a significant enhancement in the apoptosis after conjugation of Nanogold to the Antimyeloma was observed. The induction of apoptosis with gold-AbMM was significantly higher than the MM cells exposed to only AbMM or AuNPs. The study concluded that the efficacy of (gold-AbMM) on induced myeloma growth inhibition is better than that of individual AuNPs and AbMM.