

COLLEGE OF
DENTISTRY

مشاريع

بحوث

التخرج

للمرحلة

الخامسة

لسنة 2023-2024



**Republic of Iraq
Ministry of Higher Education
and Scientific Research
University of AL-kitab
College of dentistry**



**Retention and stability of
complete Denture**

A Project Submitted to

**The College of Dentistry, University of Al-kitab,
Department of prosthodontics in Partial Fulfillment
for the Bachelor of Dental Surgery**

By:

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Supervised by:

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B.D.S, MS.c, PhD-Prosthodontics**

2024/2023

Introduction

Human teeth play a crucial part in maintenance of an affirmative personality. Our masticatory system performs functions like chewing, smiling, yawning, laughing and talking. Sometimes, a person may have difficulties in performing these functions due to the malfunctioning of the jaw muscles, jaw joints or the neural system. The human teeth are also lost with ageing as a result of the cumulative effects of periodontal disease, trauma, dental caries and dental treatment. With increased awareness among the people, use of fluoride, better professional and home dental care the prevalence of the complete tooth loss has reduced. However, the total number of patients requiring complete dentures is increasing rapidly nowadays. Complete dentures are the most common prescription which is globally offered to the edentulous patients by the dentists. The most common reasons for seeking denture therapy by the patients are to improve aesthetics and masticulation (**Mazurat & Mazurat 2003**).

Previous studies reported that the most common problem in the complete denture wearers was an ill-fitting denture, corresponding to the professional terms of denture retention and stability. (**Srisilapanan 2001**).

Optimal outcome of complete denture treatment depends on the successful integration of the prosthesis with the patient's oral functions plus psychological acceptance of the dentures by the patient. These parameters require that patients perceive their dentures as stationary or well retained during function, and that the prostheses and their effects on the face meet the esthetic and psychodynamic requirements of the patient (**Yamaga 2013**).



Republic of Iraq
Ministry of higher education
and scientific research
Al-Kitab University
College Of Dentistry



Fracture of mandible

Submitted to the Board of the Dentistry Department the Dentistry College at Al-Kitab University and is part of the requirements for obtaining a bachelor's degree in dentistry

Submitted by:

**Yara maram ghazi
Mustafa falah khalaf**

Supervised by:

Dr. Hassan Qassim

2024

INTRODUCTION

The mandibular bone is an important anatomical and functional structure, constitutes the lower height and width of the facial skeleton, the mandible is a complex bony structure and has a vital anatomical articulation with other cranio-maxillofacial components, it has a fundamental function in digestive system and also plays an important role in speech and facial expression (**Stacey et al., 2006**). Mandibular fractures are among the most common (60–70%) maxillofacial fractures observed in emergency rooms (**Naeem et al., 2017**). More than 2,500 people suffer a mandibular fracture every year in the USA (**Afrooz et al., 2015**). The epidemiology of maxillofacial fractures varies according to geographical areas and socio-economic factors. The most common causes of maxillofacial fractures are road traffic accidents, falls, assaults, sports, and work injuries (**Marker et al., 2000**). The average age of patients with mandibular fracture is 38 years for men and 40 years for women (**Doerr, 2015**). Men are mainly involved (male-to-female ratio 5:1) (**Jadhav et al., 2015**).

Mandibular fractures can be classified in relation to their anatomic localization as follows: symphysis/parasymphysis, angle, ramus, condyle, and coronoid process (**Nardi et al., 2020**).

Mandibular fractures are found in 44.2% of patients who are admitted to emergency rooms for facial trauma, and only in 7% of cases is a mandibular fracture not confirmed by the findings of imaging investigations when it is clinically suspected (**Yildirgan et al., 2016**).

Republic of Iraq

Ministry of Higher Education and Scientific Research

Northern Technical University

Al-Kitab University College of Dentistry



Surgical Steps of Implant Insertion

**A Project Submitted to the Council of the College of Dentistry
at Al-Kitab University In partial fulfillment for the requirements
of the degree of bachelor in the Dentistry**

Submitted by:

Bina Bahram Othman

Dania Fuad Kareem

Bahasht Hasan Hussain

Supervised by:

Dr. Blnd Jamal Ibrahim

April-2024

Abstract

One reliable and efficient way to restore partial or complete tooth loss is dental implant surgery. The objective of this study is to conduct a thorough analysis and synthesis of the existing body of research about the surgical procedures associated with the insertion of dental implants. Initially, the first step comprehensive pre-operative assessment, including radiographic evaluation, clinical examination, and treatment planning according to the patient's needs, is the first stage. After careful planning, the surgical treatment is carried out and appropriate anesthesia is administered to guarantee the patient's comfort throughout. To prepare the site for implant implantation, a precise incision is made to reveal the underlying bone. This is followed by meticulous osteotomy preparation. To enable osseointegration and attain primary stability, the osteotomy's proportions are essential. The dental implant is carefully inserted into place using a controlled insertion force once the osteotomy site has been prepped. To guarantee the best possible results for a prosthetic, it is crucial to confirm that the implant is positioned and angled correctly. Appropriate closure procedures are used after implant implantation to reduce post-operative problems and encourage soft tissue recovery. Sufficient instructions for post-operative care are given to the patient to promote appropriate healing and increase implant success rates. So in conclusion precise planning, accurate performance of surgical procedures, and thorough post-operative care are necessary for a successful implant insertion procedure. Comprehending and executing these fundamental measures is imperative in attaining consistent results and sustained prosperity in the field of implant dentistry.

Keywords; Implants, Surgical Steps, Dental implants, Techniques

**Republic of Iraq
Ministry of Higher Education
and Scientific Research
University of Al-Kitab
College of Dentistry**



Physics Forceps In Dentistry

**A project Submitted To The College of Dentistry,
University of Al-Kitab, Department of Oral and
Maxillofacial Surgery in Partial Fulfillment for
the Bachelor of Dental Surgery**

**By
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Zaid Ibrahim Mohammed**

Supervised by

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M.Sc Oral and Maxillofacial Surgery**

April, 2024

INTRODUCTION

The history of dental extractions dates back to the days of Aristotle (384 to 322 BC), in which he described the mechanics of extraction forceps, including the advantages of “two levers acting in contrary sense having a single fulcrum.” (Ring, 1985).

This was 100 years before Archimedes reported on the principles of the lever. Abulkasim (1050 to 1122 AD) was the first to apply a single lever (an elevator) under the tooth to force it from its bed (Atkinson, 2002).

All of this indicates that the principles of biomechanics have been used to extract teeth for thousands of years.

Recently, Physics Forceps was developed by Golden in 2004 and has been modified further with the aid of various researchers (Misch, 2008).

Atraumatic extractions are important, and dentists use many modified techniques and instruments to improve extraction and postoperative wound healing, prevent dry sockets, excessive bleeding, buccal cortical plate fracture, and gingival lacerations and maintain healthy bone for an implant and denture placement (Dimitroulis, 1997; Misch, 2008; Mandal *et al.*, 2015).

In order to be done efficiently and with the least amount of trauma, tooth extraction must be done with regulated force and stability (Choi and Bae, 2011; Mandal *et al.*, 2015).

**Republic of Iraq
Ministry of Higher Education
& Scientific Research
University of Al-Kitab
College of Dentistry**



Squamous Cell Carcinoma

A Project Submitted to

**The Al-Kitab university college, Department
of Dentistry in Partial Fulfillment for the
Bachelor of Dental Surgery**

Prepared by

Zahra Mohammad Ali

Ahang Nariman Mohammad

Supervised by

Dr. Jamal Mohammad Ibrahim

2024 AD

1445 A.H

Abstract

Background: Oral squamous cell carcinoma is one of the most common and life-threatening neoplasms worldwide, and is responsible for approximately 90% of all oral malignancies.

Aim: This study was aimed at providing updated information on oral squamous cell carcinoma in all Iraqi governorates for the 5-year period from 2019 to 2024, including the annual incidence and demographic variables.

Materials and Methods: The total number of oral squamous cell carcinoma cases in Iraq, along with associated demographic information (age, sex, and site), for the 5-year period from 2019 - 2024 was obtained. The statistical analysis consisted of descriptive analysis, including frequency, percentage, and mean \pm standard deviation. A χ^2 test was performed to compare frequencies between male and female patients, among age groups, and among different OSCC sites. The χ^2 test was also used to assess the association of each OSCC site with age and sex. The significance threshold was set at $p < 0.05$, and the confidence interval was set at 95%. The incidence rate of oral squamous cell carcinoma for each year was calculated by dividing the number of OSCC cases per year by the population of Iraq, then multiplying the result by 100,000.

Results: A total of 722 cases were recorded. Statistically, oral squamous cell carcinoma was found to be more prevalent in males and individuals over 40 years of age. The tongue was the most common site of occurrence. Lip squamous cell carcinoma cases were high in males. The incidence rate of oral squamous cell carcinoma was estimated to be 0.4 per 100,000 people.

Introduction

Squamous cell carcinoma (SCC) is the second most common cutaneous malignancy after basal cell carcinoma, with an increasing incidence worldwide (1). Although many factors can increase the risk for SCC, cumulative sun exposure, especially in childhood and youth, is of greatest



**Mechanism of pain transmission in
damaged teeth and impact of
denervation in pain relief
the work is submitted to partially fulfill the
requirement for graduation , BDS. Certificate
college of dentistry , AL-Kitab University.**

**Submitted By:
Maher Saher Mathee
Mohammed Saddam Khaleel
Mohammed Yasser Hussin**

**Supervised By:
Prof. Ayoub Abdul Wahid**

2024 A.D

1445 A.H

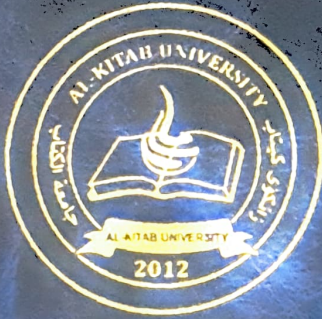
ABSTRACT

Background and Aim: Pain transmission in damaged teeth is a complex process involving various mechanisms that play a crucial role in the perception of dental pain. Nociceptors in the dental pulp and surrounding tissues detect noxious stimuli and transmit signals through the trigeminal nerve to the brain, where pain perception occurs. In cases of dental trauma or pathology, such as caries or pulpitis, these nociceptors become activated, leading to the sensation of pain. Denervation has been explored as a potential method for relieving pain in damaged teeth. By targeting the nerves responsible for transmitting pain signals, denervation techniques aim to disrupt the communication pathway between the damaged tooth and the brain, thereby reducing or eliminating the perception of pain. Understanding the mechanisms of pain transmission in damaged teeth and the impact of denervation on pain relief is essential for developing effective treatment strategies for individuals suffering from dental pain.

Methods: A total of 127 individuals (48.03% male, and 51.97% female) based on the clinical guidelines for Endodontic diagnosis were involved. A questionnaire form was filled to record the necessary clinical and radiographic evaluations of the patients, and the indication for endodontic treatment was marked on the form. Adequate information directly from the patients themselves on their first visit or from the "case sheets" were filled by dental students and outcome of treatment was followed then after.

The Results: Only 86.61% reported preoperative pain, mostly waking up in pain or experiencing pain during mastication, 75.59% reported pain relief after medication, with ibuprofen being more effective than paracetamol. Patients with vital pulp may experience more pain post-treatment than those with necrotic pulp. However, 77.17% reported complete pain relief after treatment, while 22.83% had pain 3-5 days post-treatment, mainly due to root canal treatment failure. Successful Root canal retreatment led to complete pain relief in all cases.

Conclusion: Importance of regular dental checkup is required for early detection and prevention of asymptomatic conditions like dental abscesses, also attention is required for dentists to manage patient expectations and enhance pain management strategies, particularly for cases involving vital pulp and root canal treatment failure. Overall, these insights inform dental professionals on how to better predict and address dental pain, ultimately improving patient care and outcomes.



THE ANTIBIOTICS EFFECT OF MICROORGANISM TO THE ORAL CAVITY

[Document subtitle]

The candidates:

Ibrahim majeed hamad

Amna Fawzi Dhiab

Naji khalid naji

**A Research Study Submitted To Partially Fulfill The
Requirement For Graduation , BDS.**

**Certificate -College of Dentistry , AL-Kitab
University.**



SUPERVISOR :DR.TARA FAKHRUDDIN RAHIM

2024

1445

Abstract:

Antibiotics play a crucial role in combating bacterial infections; however, their use can have unintended consequences on the delicate balance of microorganisms in the oral cavity. This review examines the effects of antibiotics on oral microbiota and their implications for oral health. Antibiotics disrupt the equilibrium of commensal bacteria, leading to dysbiosis and promoting the overgrowth of opportunistic pathogens. This imbalance can result in oral complications such as oral thrush, gingivitis, and periodontitis.

Furthermore, prolonged or frequent antibiotic use can foster the development of antibiotic-resistant bacteria, posing challenges for future treatment. Additionally, antibiotics may induce xerostomia, reducing saliva flow and compromising oral defense mechanisms. Strategies to mitigate these effects include judicious antibiotic prescribing, proper oral hygiene practices, and the exploration of alternative therapies such as probiotics.

Understanding the impact of antibiotics on oral microorganisms is essential for optimizing therapeutic outcomes while minimizing adverse effects on oral health.

Republic of Iraq
Ministry of Higher Education and Scientific
Research
University of Al-Kitab College of Dentistry



Temporary Anchorage Devices

A Project Submitted to
The College of Dentistry, University of Al-Kitab, in Partial Fulfillment
for the Graduation.

By:

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مریم عمران جاسم

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Orthodontic Dentistry

2024 A.D

1445 A.H

Abstract

Mini-implants, also known as temporary anchorage devices (TADS), have become a widely adopted treatment modality in Orthodontics due to their versatility, minimal invasiveness, and cost-effectiveness. They have largely supplanted conventional anchorage in situations where anchorage is crucial, insufficient, or may lead to undesired side effects, such as vertical displacements caused by inter-maxillary force systems.

The clinical efficacy of orthodontic anchorage through mini-implants hinges on the stability of the miniscrews utilized for fixation. Optimal stability necessitates an application site with ample and high-quality bone. It's reasonable to suggest that anchorage stability could be enhanced by selecting a position characterized by optimal bone quality and quantity, taking into account cortical and overall mandibular and jaw bone thickness.

Aim of study : the objective of this study is to carry out a review about the factors that seem affect the Stability of mini-implants and see the Applications.

Keywords : Stability , miniscrew , characteristics , Applications.



**REPUBLIC OF IRAQ
MINISTRY OF HIGHER EDUCATION
AND SCIENTIFIC RESEARCH
ALKITAB UNIVERSITY
COLLAGE OF DENTISTRY**



**Laser Use in Dentistry: A review for the innovative tool
2019-2024**

**A RESEARCH SUBMITTED TO THE COUNCIL OF THE COLLEGE OF DENTISTRY AT
ALKITAB UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF BACHELOR IN DENTAL SURGERY.**

By

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Noor Haitham Majeed

Zainab Mohammad Hareaz

Supervised By

Dr. Tariq Adeeb

2024

1445

• Introduction

Introduction of laser in dentistry, in the 1960s, by Miaman ^[1] led to a continuous research in the various applications of lasers in dental practice. There are two scenarios, on the one hand there are hard lasers, such as, Carbon dioxide (CO₂), Neodymium Yttrium Aluminum Garnet (Nd: YAG), and Er:YAG, which offer both hard tissue and soft tissue applications, but have limitations ^[2, 3] due to high costs and a potential for thermal injury to tooth pulp, whereas, on the other hand in cold or soft lasers, based on the semiconductor diode devices, which are compact, low-cost devices used predominantly for applications, are broadly termed as low-level laser therapy (LLLT) or 'biostimulation' ^[4]. On account of the ease, efficiency, specificity, comfort, and cost over the conventional modalities, lasers are indicated for a wide variety ^[5-8] of procedures in dental practice. The aim of this review is to focus on the hard as well as soft tissue applications, in dentistry.



REPUBLIC OF IRAQ MINISTRY OF
HIGHER EDUCATION AND
SCIENTIFIC RESEARCH
UNIVERSITY OF AL-KITAB
COLLAGE OF DENTISTRY



VITAMIN B-12 DEFICIENCY AND ITS EFFECT ON ORAL APHTHOUS ULCER

A RESEARCH SUBMITTED TO THE COUNCIL OF THE COLLEGE OF
DENTISTRY AT AL-KITAB UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
BACHELOR IN DENTAL SURGERY.

PREPARED BY:

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LUQMAN AHMED HAITHAM
LANA RIYATH SAAED

SUPERVISED BY:

DR. SABAH NOORI MIZEL
PHD ORAL MAXILLOFACIAL MEDICINE

APRIL 2024(A.D)

SHAWWAL/ 1446 (A.H)

Abstract

Research suggests vitamin B12 deficiency may be the cause of aphthous ulcers. Vitamin B12 plays a critical role in cellular processes and the immune system. B12 is prevalent among vegetarians and vegetarians and has a high global prevalence. By combining clinical expertise with a focus on patient-specific factors, clinicians can effectively manage RAS and improve the lives of those affected by this enigmatic condition. Recommendations When patients have recurrent aphthous ulcers, consider: Get their vitamin B12 levels checked.. A simple blood test can determine if they have a deficiency. Take vitamin B12 supplements if their levels are low.. This can be done through oral tablets, lozenges that dissolve under the tongue, or injections. Studies have shown that vitamin B12 supplementation can help reduce the frequency, duration, and severity of recurrent aphthous ulcers.. However, it is important to note that this is not a cure-all, and other factors may also be contributing to their ulcers.. It is always best to consult with a healthcare professional for diagnosis and treatment.



Republic Of Iraq
Ministry Of Higher Education
And Scientific Research
University Of Alkitab
College Of Dentistry



TREATMENT OF CL III MALOCCLUSION

A Project Submitted to The College of Dentistry
University of AL-kitab Department of Orthodontic
Dentistry in Partial Fulfilment for the
Bachelor of Orthodontic dentistry

candidate

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MARAL YALMAZ ISMAEL
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B.D.S., M.SC. Orthodontics**

2024 A.D

1446 A.H

**Republic of Iraq
Ministry of Higher Education
And Scientific Research
Al-Kitab University
College of Dentistry**



EFFECT OF GONIAL ANGLE ON MANDIBULAR 3rd MOLAR ANGULATION AND IAN POSITION

(Graduation Project)

**A project submitted to the Scientific Committee of the
Department of Oral & Maxillofacial Surgery, Al-Kitab University**

Submitted by:

Hajer Ali Fatih

Fatma M. Hama Sharef

Fadak Najeb Abbas

Supervised by:

Dr. Abdullah Abbas Hasan

B. D. S. Msc (oral)

2024 A.D.

1445 A.H

Abstract

Objective:- the primary objective of this research is to find if there is any effect of Gonial angle on mandibular third molar angulation and on inferior alveolar canal position and also to discuss the type of this effect and its significancy

Materials and method:- in this cross sectional study we examined about 1000 OPGs taken from AL Kitab University and based on some criteria we only chose 58 OPGs and separated them to right and left cases and counted each one as a single case so as a result we did interpretation to 100 lower third molars from the 58 OPGs we chose (right and left separately) and for this interpretation we used a program called IC measure on laptop

Result:- our results showed that there is correlation between gonial angle and 5 different variables which were (IAN distance to upper border-IAN distance to lower border-lower third molar mesial angulation-mesial root distance to IAN-distal root distance to IAN) and the correlation varried between positive and negative results which were all significant except for (Gonial angle effect on IAN distance to upper border) which was non significant

Conclusion:- gonial angle is a very important subject to be aware about during lower third molar examination and removal because it has a great impact on its angulation and its proximity to IAN so we have to take it in count besides all the other important factors

during lower third molar.



**Republic of Iraq
ministry of higher education
and scientific research**

BIOLOGY OF ORTHODONTIC TOOTH MOVEMENTS

A Study

**Submitted to College of Dentistry, University of Al-Kitab as
Partial Fulfillment of the Requirements of
bachelor degree in Orthodontics**

Submitted by

Ahmad Ismail Ibrahim

Omar Emad Hussain

Mohammed Fouad Mohammed

Supervised by

**Dr. Hussain alalim
(B.D.S,M.S.C)**

2024 A.D

1445 A.H

Abstract

Tooth movement, as it is generally visualized by orthodontist clinicians, is modeled as a biological event mediated by the cells of the periodontal ligament (PDL) whereby alveolar bone resorption is witnessed on the “pressure” side and bone apposition on the “tension” side. This “pressure-tension” image is burned so deeply into the orthodontic psyche after a century plus of scrutiny that the structural features, characteristics, and mechanisms involving the tooth, the PDL, and the alveolar bone are at the heart of the prevailing tooth movement paradigm and have dominated investigatory attention. Scholarship on tooth movement biology has focused on breaking down the cell-centric “pressure-tension” model into its component parts so as to tease out individual functions. Our understanding of the tissue, cellular, and molecular mechanisms involved in orthodontic tooth movement has created a segregated literature and knowledge base of part-processes that is indeed impressive. But these reductionist explanations of the physical body – this collection of parsed physiological processes – have not resulted in a cohesive understanding of clinically relevant tooth movement. During the past 15 years, interest in accelerating tooth movement has grown.

The common basis for biologically based acceleration techniques is some form of injury to the alveolus resulting in mineralized tissues surrounding the teeth becoming less mineralized (osteopenia). It is the increase in tissue turnover and the osteopenia of alveolar trabecular bone that facilitates rapid tooth movement. Lessons learned from acceleration technique wound healing draws attention to the importance of tissue strain, microenvironments, and tissue turnover and brings us face-to-face with the body as lived in relationship to a changed environment. The intentionally injured body takes predictable actions through the sensing and interplay of multitudes of information for the sake of reestablishing equilibrium, and in this regard, the local-regional interpretation of micro strain means a lot. Mechanobiological disciplines like orthodontics are best understood through stresses imposed, strains experienced, and how the lived body – inseparable from its environment – intentionally adapts and reestablishes homeostasis



**Ministry Of Higher Education
And Scientific Research
Al-Kitab University
College of Dentistry**

FLUORIDE IN DENTISTRY

**A Literature Review Project Submitted to the Council
of the College of Dentistry Department at Al-Kitab
University in Partial Fulfillment of the
Requirement for the B.D.S Degree**

Candidates:

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Adil Ali Hussain**

Supervised By:

**Dr. Sava Bakhtyar
B.D.S, M.Sc. Prevention**

2024 A.D

1445 A.H

Abstract

Background of the project: Appropriate oral health care is fundamental for any individual's health. Dental caries is still one of the major public health problems. The most effective way of caries prevention is the use of fluoride.

Objects: the objects of this literature review, is to describe various ways of using fluoride as a method of dental caries prevention, outline the benefits and drawbacks of the fluoride, explain the importance of collaborating with patient and care providers to prevent caries.

Keywords: Fluoride, Fluorosis, Topical fluoride, Systemic fluoride.



REPUBLIC OF IRAQ MINISTRY OF HIGHER
EDUCATION AND SCIENTIFIC RESEARCH
ALKITAB UNIVERSITY COLLEGE OF
DENTISTRY



Leukoplakia

The Candidates :
Mohammed Abdulsalam
Sarab Salim

A Research Study Submitted To Partially Fulfill The
Requirement For Graduation , BDS.
Certificate -College of Dentistry , AL-Kitab University

2024 A.D

SUPERVISOR (Prof. Rafal Abdul Razzaq)

1445 A.H

Abstract

Oral leukoplakia is a condition characterized by thick, white patches on the inside of the mouth, including the cheeks, gums, and tongue. These patches can't be scraped off and are often painless, but they can sometimes be sensitive to touch, heat, spicy foods, or alcohol. While usually harmless, some cases can progress to oral cancer, so it's essential to have it evaluated by a dentist or doctor, especially if it doesn't go away on its own. Treatment typically involves removing the source of irritation, such as quitting smoking or eliminating other irritants, as well as regular monitoring

The term 'Leukoplakia' is a clinical term only, when biopsy is taken the term leukoplakia should be replaced by the diagnosis obtained histopathologically. the malignant transformation rate varies in different parts of the world, as a result of differences in tobacco & dietary habit and genetic mutations. The management of oral leukoplakia depends on their type, Varies from "wait and see" attitude and topical chemopreventive agents to complete surgical removal.

**Republic of Iraq
Ministry of Higher
And scientific Research of
Al-kitab University College**



Missing teeth

A project Submitted to

**Al-kitab University Collage , Department
of Dentistry , in a partial fulfillment For
the bachelor of dental surgery .**

Done by

Tabark mithal hekmat

Saya salar mansur

Sara Khalil hasan

Supervised by

Dr. saif moneim aziz

MSc (E.O.P) UK

1445A.H

2024 A.D

Abstract

Hypodontia is most frequently used when describing the phenomenon of congenitally missing teeth. The term hypodontia is used when one to six teeth, excluding third molars, are missing, and oligodontia when more than six teeth are absent (excluding the third molars). This study was conducted in the x-ray department in college of dentistry, university of al-kitab, Kirkuk, Iraq. Patients were classified into two groups (52 males and 48 females) with an average age of (22), to estimate the prevalence of hypodontia among a sample of al-kitab university patients .

Results : missing teeth were seen in Females at about (48%) and males were (52%), mandibular first molar (**lower 6**) is the most commonly missing tooth (38%) of the cases

Conclusion : males are more effected with hypodontia than females , mandibulare first molar is the most commonly missing tooth.



**COMPARITION BETWEEN DENTAL DIGITAL AND
CONVENTIONAL IMPRESSIONS
AND MANUFACTURING**

**A GRADUATION PROJECT SUBMITTED TO THE COUNCIL
OF THE COLLEGE OF DENTISTRY AT UNIVERSITY
OF AL-KITAB IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE
(B.D.S) CERTIFICATE**

CANDIDATES:

**AHMED MUHAMMED ABDULLAH
AHMED DOORAI NOORELDIN
ABDULWAHAB DAMIN DAHAM
MUHAMMED KADIR MUHAMMED**

SUPERVISOR:

ASSIST. PROF. DR. MUAYAD RABEE

APRIL, 2024 A.D.

SHAWWAL, 1445 A.H.

Abstract

The rapid advancement in technologies opened ways were unthinkable before. Dentistry is no exception, with the new methods of scanning, printing, and milling. The digital dentistry grown to compete with the traditional methods.

This research compares the conventional and traditional methods of impression taking and manufacturing. Based on clinical outcome.

The method used numerous case sheets distributed among clinics with the target to evaluate the speed, convenience, and the accuracy of each method.

The digital averaged out faster and more convenient also with a noticeable lead in accuracy.

Keywords: Digital dentistry; CAD/CAM; Digital impression; Intraoral scanner.



MINISTRY OF HIGHER EDUCATION

AND SCIENTIFIC RESEARCH

AL_KITAB UNIVERSITY

COLLAGE OF DENTISTRY

5TH STAGE

2023_2024

Research about:

(Common Intra Oral Radiographic Errors)

Prepared by

1 احمد عبدالوهاب محمود-

2- عبدالعزيز سعود فرج-

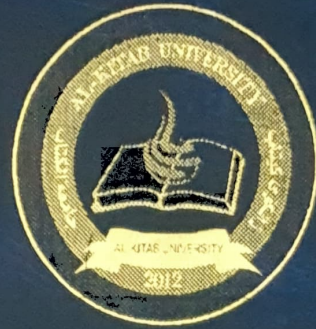
3- خالد فيصل عبدالصمد-

Supervised by: م.م معاذ شهاب حمد

Abstract:

There had been a long standing requirement for dental students which would help them to understand the basic techniques for intraoral periapical radiographs. Intra oral periapical radiography is an adjunct to the clinical examination and provides useful information about the joint components. The periapical view shows the entire crown and root of the teeth which provides vital information to aid in the diagnosis of the most common dental diseases. This article highlights the basic principle, techniques, advantages and disadvantages of intraoral periapical radiography.

**Republic of Iraq
Ministry of Higher Education
and Scientific Research
AL_Kitab University College
Department Of Dentistry**



**Evaluating the Efficacy of Orthopantomography
(OPG) in the Diagnosis and Management of
Dental and Maxillofacial Conditions**

**A graduation project Is submitted to the Dentistry
Department in partial fulfillment of the requirements
for the Degree of Bachelor in Dental Surgery**

presented by

**Muhammed Zuhair Naji
Iman Khaled Mazhar
Sameem Weam Bihnam
Saba Muhammad Damen**

Supervised by

Ass.Lec. Moath Shihab

2024 A.D

1445 A.H

INTRODUCTION

Radiographs are one of the most Important diagnostic tools In diagnosing and treatment planning of the patient along with the clinical examination of the patient for a dental disease. There are different imaging techniques used in oral and maxillofacial surgery which are having their own significance. Normal routine diagnostic approaches used in oral and maxillofacial surgery as well as in other specialty of the dentistry are normal Intra oral peri apical radiography, OPG and radio visiography . Apart from these techniques some advanced techniques can also be employed in the diagnosis and treatment planning of the dental patient, techniques such as cone beam computed tomography, magnetic resonance imaging etc. All these techniques are having their own significance of use.

OPGs (Orthopantograms) are a type of dental x-ray that produces a wide panoramic scanning dental x-ray of your upper and lower teeth. OPGs are used regularly in routine checkups to monitor and assess the health of your teeth and gums.

OPGs are fast, easy and convenient, especially for patients with limited jaw movement. They also utilise the lowest patient radiation dose of any x-ray, with no radiation left In your body once the OPG scan has completed.

Not opting for an OPG can result In the progression of undiagnosed oral conditions – leading to more serious oral health consequences. OPGs provide early detection and allow for timely treatment thus increasing your chances for a quick and successful recovery.

An orthopantomogram (OPG) Is a common radiograph used to identify the hard tissues of the oral cavity and surrounding skeletal structures. It is an extra-oral radiograph that approximates the focal trough of the mandible. Although resolution Is not as detailed as intra-oral radiographs for examination of the teeth, gross changes in



Effect of Herpes virus on oral health

**Submitted To the Council of The College Of Dentistry,
University Of Alketab In Partial Fulfilment Of The
Requirements For The Degree Of Bachelor's
In Dental Sciences**

By Top of Form

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1445 A.H.

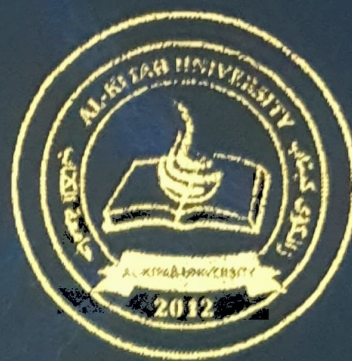
2024 A.D.

Chapter One
Review of literature

1.1 Introduction

Herpes viruses or herpesviruses are double-stranded DNA viruses with icosahedral symmetry, belonging to the Herpesviridae family. The main characteristic of this family of viruses is to go against replication within the host cells, without ever being completely eliminated, thus causing a latent infection. This clinical event occurs in a time that varies according to the type of the virus and to the sensitivity of the host. The virus can be reactivated from this latent state, even after many years, giving rise to a recurrence of the disease with a clinical manifestations. The stimuli that induce the “awakening” of viral activity can be heat, cold, trauma, fever, stress [1] and above all changes in a host’s immune defense status. In the virions, 120–200 nm in diameter, the core is distinguished, containing the DNA, the icosahedral symmetry capsid, the protein integument, and the envelope. The herpes simplex virus (HSV) is a species of virus, belonging to the Herpesviridae family, subfamily Alphaherpesvirinae, genus Simplexvirus. The first form, considerably diffused, is responsible for the appearance of characteristic febrile vesicles which normally affect the facial skin (lips, nostrils); it is also called herpes simplex labial. Initially, the cold sores manifest themselves with a slight tingling and a sense of heat on a reddened point of the lip. Within a few hours, some blisters filled with clear liquid, often painful, begin to develop in the same area as the initial point: The appearance of cold sores is ascertained [2,3,4]. The second form is a genital infection, also known as

**Ministry of Higher Education
& Scientific Research
University of AL-kitab
College of Dentistry**



Impact of Hepatitis B & C in Dentistry

**A graduation project submitted to
the council, of the college of dentistry
at university of al-kitab in partial fulfillment
of the requirements for the (B.D.S) certificate**

By:

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2024 A.D

1445 A.H.

Abstract

Hepatitis B and C are viral infections that affect the liver and are a significant concern in the field of dentistry due to the potential risk of transmission. This abstract provides an overview of the risks, transmission routes, and preventive measures for hepatitis B and C in dental practices.

Hepatitis B and C are bloodborne pathogens, with hepatitis B caused by the Hepatitis B Virus (HBV) and hepatitis C by the Hepatitis C Virus (HCV). Both viruses can lead to chronic liver disease, cirrhosis, liver cancer, and ultimately death. The primary modes of transmission for these viruses are through blood and bodily fluids. In dental settings, where procedures often involve exposure to blood and saliva, the risk of transmission to dental professionals and patients is a concern.

**Republic of Iraq
Ministry of Higher Education
& Scientific Research
University of Al-Kitab College
of Dentistry**



The Impact of Digital Technology on Dentistry: A Systematic Review

(Graduation Project)

**A project submitted to College of Dentistry / University of Al-Kitab,
in partial fulfillment of requirements for the B.D.S. Degree**

By:

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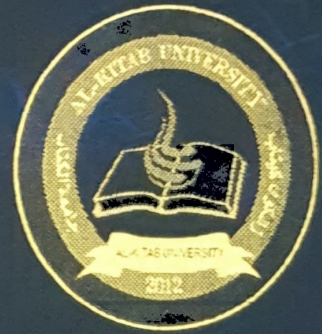
Supervised by

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Abstract

Today, digital dentistry has revolutionized the way dental professionals provide patient care. It refers to the use of digital technologies in all aspects of dentistry, including diagnosis, treatment planning, and restoration; encompassing a range of technologies, including computer-aided design/computer-aided manufacturing (CAD/CAM), three-dimensional (3D) printing, artificial intelligence (AI), augmented reality (AR), and teledentistry; a rapidly evolving and transformative field.

**Ministry of High Education
and Scientific Research
University of Al-kitab
College of Dentistry**



**Graduation research project about
quorum sensing biofilm sensitivity
and their relation with antibiotics.**

Prepared by :

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2023-2024

1.1 INTRODUCTION

Quorum sensing (QS) is a bacterial cell–cell communication process that involves the production, detection, and response to extracellular signaling molecules called autoinducers (AIs). AIs accumulate in the environment as the bacterial population density increases, and bacteria monitor this information to track changes in their cell numbers and collectively alter gene expression. QS controls genes that direct activities that are beneficial when performed by groups of bacteria acting in synchrony. Processes controlled by QS include bioluminescence, sporulation, competence, antibiotic production, biofilm formation, and virulence factor secretion. Despite differences in regulatory components and molecular mechanisms, all known QS systems depend on three basic principles. First, the members of the community produce AIs, which are the signaling molecules. At low cell density (LCD), AIs diffuse away, and, therefore, are present at concentrations below the threshold required for detection. At high cell density (HCD), the cumulative production of AIs leads to a local high concentration, enabling detection and response. Second, AIs are detected by receptors that exist in the cytoplasm or in the membrane. Third, in addition to activating expression of genes necessary for cooperative behaviors, detection of AIs results in activation of AI production [1].

1.2 THE AIM OF THE STUDY

To Clarifying the concepts of quorum sensing biofilm sensitivity and their relation with antibiotics, Dental caries , Gingivitis , Periodontitis and dental implant.