شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

HOSSAM MAGHRABY

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

HOSSAM MAGHRABY

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

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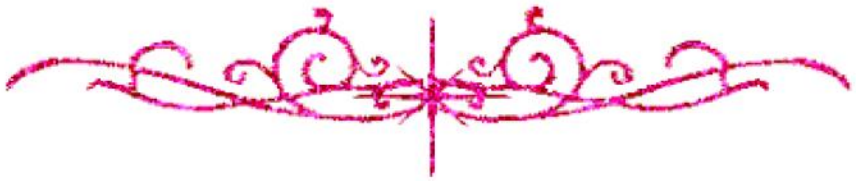
بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل

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بسم الله الرحمن الرحيم

و ما أوتيتم من العلم إلا قليلا

صدق الله العظيم

Evaluation of the effect of different types of non steroidal antiinflammatory drugs (NSAIDs) on osseointegration of dental implants.

Thesis

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by

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Dedicated To

My Parents

My Wife

My Beloved children

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INTRODUCTION

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A dental implant is a device that is capable of replacing the functions of natural tooth or teeth **(Alberktsson, 1983).**

Dental implants have become a successful and commonly used modality in the treatment of both totally and partially edentulous patients requiring prosthetic teeth replacement with significant importance for prosthetic techniques **(Dymtryk, 1990).**

Osseointegrated implants need stable interfacial conditions for bone to develop and, according to **Alberktsson (1988),** any movement in the early healing stage may shift the stimulus towards more soft tissue cells formation.

Non steroidal antiinflammatory drugs (NSAIDs) are among the most frequently prescribed medications and are used primarily to control pain, stiffness, and reduce inflammation. They are a group of chemically dissimilar agents that differ in their antipyretic, analgesic, and antiinflammatory activities. They block prostaglandins synthesis by inhibiting the action of cyclooxygenase on arachidonic acid **(Offenbacher *et al.*, 1993; Bahl *et al.*, 1994 and De Broe and Elseviers, 1998).**

Although aspirin is the most commonly used type of NSAIDs, some of the newer NSAIDs are marginally superior to aspirin in certain patients because they have greater antiinflammatory activity and/or cause less gastric irritation **(Hannig *et al.*, 1992).**

In animal models NSAIDs have been shown to reduce the rate of alveolar bone resorption, such as in dogs with naturally occuring periodontitis **(Howell *et al.*, 1991).**

In humans, epidemiological studies have also suggested potentially beneficial effects of NSAIDs on the periodontal condition. Patients receiving NSAIDs over more than 1 year seemed to have less gingival inflammation, shallower probing pocket depths and less loss of clinical attachment compared to a control group **(Waite *et al.*, 1981).** However, systemic administration of NSAIDs has not been established as a routine method for preventing and /or treating periodontitis due to its significant side effects (e.g. gastrointestinal intolerance, bleeding disorders and hypersensitivity) **(Flemming *et al.*, 1995).**

The role of this class of drugs in sparing bone around the dental implant has not yet been established **(Jeffcoat *et al.*, 1995)**. Accordingly, the present study aimed to evaluate the effect of the use of NSAIDs on healing after implant insertion.

REVIEW OF LITERATURE

DENTAL IMPLANTS

A dental implant is defined as a prosthetic device of alloplastic biomaterial surgically implanted into the oral tissues beneath the mucosal and/or periosteal layer, and/or within the bone to provide retention and support for a fixed or removable prosthesis **(Misch, 1993 and Van Blarcom *et al.*, 1994).**

➢ Progress Of Dental Implants:

The earliest dental implants were of stone and ivory, cited in archaeologic records of china and Egypt before the common era. Gold and ivory dental implants were used in the 16^{th} and 17^{th} centuries **(Lemons and Natiella 1986 and Balkin, 1988).**

Metal implant devices of gold, lead, iridium, tantalum, stainless steel, and cobalt alloy were developed in the early 20^{th} century. Cobalt-chromium-molybdenum subperiosteal and titanium blade implants were introduced in the 1940s and 1960s respectively and became the most popular and successful implant materials from 1950 through 1980 **(Block *et al.*, 1997).**

In 1809, Maggiolo placed a single-stage gold implant without a crown to heal passively in a fresh extraction site just above the gingiva, the crown was added after healing. Greenfield used a two-piece hollow basket fabricated from 24-gouge iridium wire soldered with 24-carat gold in 1913 **(Block *et al.* 1997).**

In 1939, Atrock described a method of placing a vitallium screw to provide anchorage for replacement of a missing tooth **(Rasmussen , 1992).**
In the 1960's, Linkow introduced the blade vent implant, it was designed for