بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

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Pure collagen cone versus collagen cone blended gentamicin in alveolar ridge preservation following extraction of chronic infected tooth (Randomized Histological and Clinical study)

Research thesis

Submitted in partial fulfillment of the requirements for master's degree in Oral Medicine, Periodontology and Oral Diagnosis

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Amr reda

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Abbreviation

AIBG	***Antibiotic impregnated bone graft***
ARP	***Alveolar ridge preservation***
BMP	***Bone morphogenic proteins***
CBCT	***Cone beam computed tomography***
CT	***Computed tomography***
DBA	***Dehydrated bone allograft***
DFDBA	***Demineralized freeze dried bone allograft***
GBR	***Guided bone regeneration***
GTR	***Guided tissue regeneration***
HA	***Hydroxyapatite***
PMMA	***Polymethylmethaacrylate***
RST	***Root submergence technique***

Introduction

Many studies showed that post extraction healing showed a marked change in the edentulous ridge. The apical and middle portions of the socket site showed minor dimensional alterations while the coronal portion of the ridge reduction of the hard tissue volume was significant ***(Aroujo et al., 2009)***

The reduction of alveolar bone volume following tooth extraction may interfere with placement of implants and affect the treatment and success of fixed or removable prosthesis with regard to function and esthetics ***(Seibert et al., 1996*** ; ***Schneider et al., 1999***; ***Schropp et al., 2003).***

Alveolar ridge preservation therapies aim to maintain the hard and soft tissue dimensions of the alveolar ridge that are partially lost after tooth extraction as part of the natural physiological healing process. Many studies showed that alveolar ridge preservation via socket filling with a bone graft can be an effective therapy to prevent physiologic bone loss after extraction of teeth, in both the horizontal and the vertical dimension. ***(Mcallister et al., 2007*** ; ***Ortiz et al., 2014)***

Systematic reviews have demonstrated that different alveolar ridge preservation techniques do not totally eliminate post-extraction resorption. However, the reduction in ridge width and height following alveolar ridge preservation may be less than that which occurs following natural socket healing. ***(Ten Heggeler et al., 2011***; ***Horváth et al., 2013***; ***Morjaria et al., 2014).***

Xenografts are the most commonly used in regenerative therapy for alveolar ridge preservation as they contain similar hydroxyapatite content to that of natural bone, which allows the graft to revascularize and be replaced by new bone. Multiple histological studies showed good integration of bovine xenograft particles with newly formed bone filling the socket after extraction ***(Yoon et al., 2007***; ***AlGhamdi et al., 2010***; ***Rodella et al., 2011***; ***Darby et al., 2011).***

Collagen has been shown to have various beneficial effects on healing in different types of surgical applications ***(Harving et al., 1997***; ***Yetim et al., 2010).***

Aim of the study

The present study was performed to evaluate the effect of parasorb® cone genta or parasorb® cone in alveolar ridge preservation following extraction of tooth with a chronic infection.

Primary objective : Histological and histomorphometric evaluation of the grafted bone after using **parasorb® cone genta , parasorb® cone and xenograft and collagen membrane.**

Secondary objective : Evaluation of changes in alveolar ridge dimensions radiographically and evaluation of implant stability clinically after using **parasorb® cone genta , parasorb® cone and xenograft and collagen membrane.**