



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



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# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**MONA MAGHRABY**

**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

By

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B.D.S. 2013 – Ain shams university

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2020

## *Acknowledgement*

Thanks to "**Allah**" for providing me the strength and well to finish my work successfully.

I would like to express my deep gratitude to my dear supervisor **Prof. Dr. Hala Kamal Abd El Gaber** Professor of Oral Medicine, Periodontology and Oral Diagnosis Faculty of Dentistry Ain-Shams University for her continuous support, patience, motivation and encouragement in getting me through this work.

Very special thanks go to **Dr. Ahmed Elsayed Hamed Amr** Lecturer of Oral Medicine, Periodontology and Oral Diagnosis Faculty of Dentistry, Ain-Shams University for his supervision, advice and valuable scientific knowledge and constant support

Very special thanks go to **DR. Shaimaa Mustafa Masloub Ali** Lecturer of oral pathology, Faculty of Dentistry, Ain-Shams University for her supervision, advice.

**Amr reda**

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## *Abbreviation*

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

## 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.**