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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

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بالرسالة صفحات
لم ترد بالأصل

**THE USE OF BIOACTIVE GLASS, PLATELET RICH
PLASMA WITHOUT THROMBIN, AND FIBRIN
MEMBRANE AROUND DENTAL IMPLANTS IN AREAS
OF LOCALIZED RIDGE DEFECTS
(A CLINICAL AND RADIOGRAPHICAL STUDY)**

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ABBREVIATIONS

Ti	: Titanium.
TPS	: Titanium plasma sprayed.
HA	: Hydroxyapatite.
GBR	: Guided bone regeneration.
GTR	: Guided tissue regeneration.
ePTFE	: Expanded polytetra-fluoroethylene.
PLA	: Polylactic acid.
PGA	: Polyglycolic acid.
HIV	: Human immunodeficiency virus.
FDBA	: Freeze-dried bone allografts.
DFDBA	: Demineralized freeze-dried bone allografts.
BMP	: Bone morphogenetic proteins.
HTR	: Hard tissue replacement.
TCP	: Tri-calcium phosphate.
CaP	: Calcium-phosphate.
Ca ⁺²	: Calcium ion.
Na ⁺	: Sodium ion.
Po ₄ ⁻³	: phosphorus pentaoxide
Si ⁺⁴	: Silicon ion.
IGF	: Insulin-like growth factor.
m-RNA	: messenger RNA.
PRP	: Platelet-rich plasma.
PDGF	: Platelet-derived growth factor.
TGF- α	: Transforming growth factor-alpha.
TGF- β	: Transforming growth factor-beta.
TBT	: Topical bovine thrombin.
TRAP	: Thrombin Receptor Agonist Peptide-6.
CPD	: Citrate-phosphate dextrose.

INTRODUCTION

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A missing single tooth is a consistent finding in people of all ages. It may be lost as a result of trauma, periodontal disease, caries as well as a congenital defect^{1,2}.

Anterior single-tooth replacement is the ultimate challenge facing the prosthodontist or the restorative dentist. The treatment of the isolated missing tooth can be performed using one of several replacement alternatives. In the past, options for the replacement of a single-missing tooth involve either a removable or a fixed partial denture³.

However the fixed partial denture has been a well accepted treatment modality, it may be contraindicated today to prepare healthy teeth proximal to an edentulous space for crowns. In addition, it has the potential for marginal deterioration and periodontal diseases. Resin-bonded retainers have varying rates of success and high incidence (31%) of prosthesis debonding⁴. Removable prostheses have been used for single-tooth replacement, but generally are only provisional devices used prior to the definitive treatment^{5,6}.

For the past 100 years or more, scientific approaches for the replacement of lost teeth with biological fixed structures has primarily centered on the use of tooth transplants, both autogenic and allogenic, and attempts to replant traumatically avulsed teeth⁷.

The use of dental implants for the treatment of single-tooth replacement cases was first introduced in 1986. Single-tooth implant replacement has two major advantages over conventional fixed partial prostheses. First, there is no need to prepare adjacent teeth and second, the ridge will be maintained by the implant⁸.

Alveolar ridge resorption following tooth removal is a physiologically undesirable but an unavoidable phenomenon which becomes a problematic site that is difficult to be functionally and esthetically restored by either a

conventional tooth-supported restoration or by an implant-anchored restoration⁹.

Recently, the development of guided tissue regeneration (GTR) procedures that may regenerate bone in deficient sites of the jaw has expanded the possibilities of implant placement¹⁰. Guided bone regeneration (GBR) has dramatically expanded the applicability of the implant therapy and resulted in predictable, marked bone growth around implants in a variety of circumstances¹¹.

A most important concept in guided bone regeneration is the maintenance of the space beneath the membrane, so the use of graft material for the membrane stabilization and support results in the increase of bone formation¹².