بسم الله الرحمن الرحيم

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تم رفع هذه الرسالة بواسطة /صفاء محمود عبد الشافى

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

ملاحظات: لايوجد

The Effect of Early Versus Delayed Loading on the Stability of Implants Placed by Transalveolar Augmentation Using PRGF in Partially Edentulous Maxilla

A Thesis Submitted to the prosthodontics department
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Dedication

To my beloved family for their endless help and support.

My little family : Rana and Yahia .

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The Effect of Early Versus Delayed Loading on the Stability of Implants Placed by Transalveolar Augmentation Using PRGF in Partially Edentulous Maxilla

Abstract

Abstract: Purpose :to assess the effect of custom made fiber post for restoring himesected lower first molar and the most post system have fracture resistance to mastication load among cast metal post and and a customized fiber post (EVERSTICK POST) after restoration by 3units FPD. **Methods:** A total of sound fourty extracted lower molars and fourty sound extracted lower premolar will be collected. Extracted human lower molars were hemisected and restored with a everstick post) with composite core and SECOND group with cast metallic post-core. Each group was subdivided into two subgroups. In supgroups 1, the posts were cemented with total etch resin cement .In subgroup 2 , the posts were cemented by self adhesive resin cement. The distal root of molars and premolar were prepared by C.N.C milling machine. Metal full coverage bridges fabricated for restoring the resected mesial root on the distal root and premolar as abutments. A 90-degree vertical was applied to the restored teeth with a crosshead speed of 0.5 mm/min,with spherical tip had a diameter of 5.8 mm. and the fracture loads and mode of fracture were recorded **Results:**. Under the condition of vertical loading, the fracture load of teeth restored with the ever stick post-with composite was greatest among the groups (two-factor factorial ANOVA and $P<0.05$). All fractures in teeth restored with metallic post of post-core systems propagated in the middle portions of roots, including the apices of the posts. The fracture load of teeth restored with pre-fabricated metallic posts was significantly smaller than that in other groups. Most of fractures in the fiber post group propagated within the cervical area, while most fractures in other groups extended beyond the middle of the roots. **Significance**. From the results of the present investigations, it was concluded that under the conditions of vertical loadings, the combination of a custom made fiber post and composite resin core with a full cast bridges is most protective restoration of the hemisected lower molar.

Keywords: Early, Delayed Loading, Transalveolar Augmentation, PRGF.

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List of Abbreviations

Abb.	Full Term
BAOSFE	Bone-added osteotome sinus floor elevation
BFGF	Basic fibroblast growth factor
BIC	Bone implant contact
CBCT	Cone beam computed tomography
EGF	Epithelial cell growth factor
FPD	Fixed partial denture
GBR	Guided bone regeneration
HA	Hydroxi apatite
ISQ	Implant stability quotient
IT	Insertion torque
LPRP	Leukocyte and Platelet Rich Plasma
MMC	Maxillary major connector
MSFA	Maxillary sinus floor augmentation
OMSFE	Osteotome maxillary sinus floor elevation
PAF-4	Platelet activating factor-4
PDGF	Platelet-derived growth factor
PPP	Platelet-poor plasma
P-PRP	Pure Platelet-rich plasma
PRF	Platelet-rich fibrin
PRGF	Plasma Rich in Growth Factors
PRP	Platelet-rich plasma
RBC	Red blood cells
RFA	Resonance frequency analysis

Abb.	Full Term
RPD	Removable partial denture
SFE	Sinus floor elevation
TCP	Tricalcium phosphates
TGF-β	Transforming growth factors
VEGF	Vascular endothelial growth factor
WBC	White blood cells

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Introduction

Loss of teeth compromises lifestyle and leads to several clinical challenges. Drifting and tilting of adjacent teeth, changes in facial appearance, altered speech, supra eruption of the opposing teeth and tempo-mandibular joint disorders are all results of partial edentulism. The continuous loss of bone, as well as movement of adjacent and opposing teeth makes the restoration of the edentulous area with a proper restoration difficult.

Fixed partial dentures (FPDs), removable partial dentures (RPDs), over dentures and implant prosthesis are all options for replacing missing teeth and supporting structures in partially edentulous patients.

Implant placement in posterior maxilla encountered some limitation. Sinus pneumatization and bone resorption after teeth extraction result in decrease in available bone and this lead to limited length of implant. Sinus lifting in two ways by transcrestal approach or lateral approach is usually the method to follow to create adequate space for the implant.

A combination of autogenous particles and graft material are added through the osteotomy in floor augmentation. These materials are osteogenic, osteoconductive, osteoinductive or have combination of these properties. One of these materials is the plasma rich in growth factors (PRGF).

The loading for the final prosthesis is done after six months to allow the osseointigeration to occur between implant and bone and

this is known as delayed loading protocol. On the other hand there are two main different protocols aiming to decrease the time till loading of the final prosthesis. Immediate loading within the first two weeks after surgery or early loading after at least one month and before the six months period. Thus this thesis is promoted to answer the debate related to the effect of addition of PRGF material with transalveolar sinus lifting on implant stability and whether it promotes early loading or not.