



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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**“The use of Perforated Barrier Membranes and
IPRF Nano-micro Sticky Bone in
Horizontal Alveolar Ridge Augmentation”
(Controlled Clinical and Histomorphometric Study)**

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببنا أنك لا تعلم لنا
إلا ما علمتنا أنك أنت
العليم العظيم

صدق الله العظيم

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Marwan Farahat Antar

Dedication

I do dedicate this work to My Father, My Mother and My dearest Sisters. Thank you for always being by my side & for helping me through all my life steps. I owe you all the success of this work

Abstract

Purpose

Clinical and radiographic studies were used to examine the amount of horizontal bone gain 4 months following alveolar ridge augmentation using IPRF Nano-micro Sticky Bone with perforated collagen membrane against occlusive barrier membrane.

Methods

The study represents an observational analytic randomized Case controlled study of twenty patients having Horizontal alveolar ridge defect, where augmentation was done for them by using IPRF Nano-micro Sticky Bone. Patients were divided randomly into two groups. Randomization was performed by using coin flip method. Each Group included ten patients, (Group 1) had horizontal alveolar ridge augmentation using IPRF Nano- micro Sticky Bone with occlusive collagen membrane, while (Group 2) had a horizontal alveolar ridge augmntation using IPRF Nano-micro Sticky Bone with perforated collagen membrane. A radiographic assessment using CBCT, as well as a clinical assessment, was done for both groups after a follow up period of 4 months. The study was approved by the ethics and research committee of the Faculty of Dentistry, Ain Shams University.

Results

- 1) Both Perforated collagen and occlusive membranes in association with nano micro sticky bone showed a significant improvement in horizontal alveolar ridge augmentation.
- 2) A slight bone reduction in the two studied groups was observed after the 4 months follow up, in comparison to post-operative readings. Those differences were found to be statistically highly significant. The mean percent of bone reduction for perforated membrane was lower than that for non-perforated membrane group during follow up. That difference was also found to be statistically significant.

Keywords:

Horizontal bone augementation, collagen membrane, perforated membrane, iprf, sticky bone, Nano hydroxyapatite, micro nano bone

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