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CLINICAL AND RADIOGRAPHIC EVALUATION OF THE USE OF OSTEOGRAF WITH ATRISORB BIODEGRADABLE MEMBRANE IN TREATMENT OF INTRAOSSEOUS DEFECTS

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ABSTRACT

The aim of this study was to compare the clinical regenerative capacity of Atrisorb membrane with and without Osteograf graft material and Osteograf alone in treating periodontal intrabony defects. 30 interproximal defects with CAL >6 mm were treated in 10 adult periodontitis patients aged 35-58 years. After initial therapy, the defects were randomly assigned into 3 groups of 10 defects each. These groups were designated :1) Atrisorb membrane group, 2) Atrisorb membrane + Osteograf, and 3) Osteograf group. PD, CAL, PBL and RBL were recorded from all patients at baseline, 6 and 9 months respectively. An overall improvement in clinical and radiographic parameters was observed from baseline to 6 and 9 months for all studied groups. A higher PD reduction, attachment gain and improvement in PBL and RBL were recorded in membrane groups when compared to bone graft group. Moreover, the combination group revealed better, but statistically non significant results in comparison to Atrisorb group. In conclusion, this 9 month study demonstrated that a post treatment significant clinical attachment gain and radiographic bone fill could be obtained by the use of Atrisorb membrane, with or without Osteograf.

INTRODUCTION

Guided tissue regeneration (GTR) is a widely utilized surgical technique to enhance regeneration of the periodontium. It has been defined by Chung [1] as the creation of an environment which following a periodontal flap procedure, allows the cells from the periodontal ligament to repopulate a debrided root surface and form new periodontal attachment. This is accomplished by the placement of a barrier over root surface, which will prevent both the formation of a long junctional epithelium and contact between the root surface and gingival connective tissue.

Numerous papers have reported the formation of a new attachment of up to 70 to 80% of the initial defect height in lesions treated with GTR [2-5].

Most widely used are barrier membranes based on expanded PTFE technology[6].

These non-resorbable membranes offer successful regeneration of alveolar bone and periodontal attachment as repeatedly shown in preclinical[7,8] and clinical models.[3,4,9,10] However a non-resorbable membrane has the disadvantage that it must be removed at a second surgical procedure 1 to 3 months after the first regenerative surgery. This additional surgical procedure is not

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