



Vertical Augmentation - Soft Tissue Augmentation in Anterior Mandible: Case Report



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Abstract

Alveolar ridge defects occur most often after tooth loss and can cause aesthetic and functional problems. Hard tissue loss from the alveolar ridge also leads to soft tissue loss such as buccal shape loss, loss of interdental papillae and lack of soft tissue.

Introduction

In modern dental practice treatment of edentulous areas with the implants has become a predictable treatment option. The long term implant success is based on presence of ideal quality and quantity of the hard and soft tissues. After the extraction vertical and horizontal atrophies may occur. It has been observed that 60% of the resorption occurred in the first 3 months of the studies about dimensional changes of the extraction sockets. Methods such as block bone grafts, alveolar crest expansion (splitting), distraction osteogenesis and directed tissue regeneration are frequently used in order to ensure correct inter-jaw relationship, adequate bone volume and morphology before the implant operation.

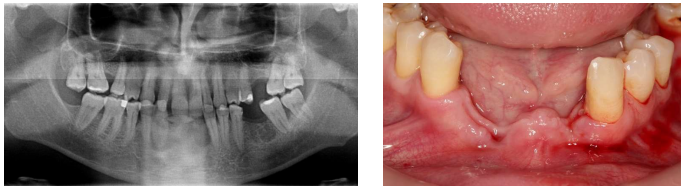
The use of autogenous bone grafts for vertical bone augmentation is accepted as the gold standard. In many cases, sufficient autogenous bone grafts may be harvested from the mandibular symphysis area for areas of one or two teeth that require vertical width and height gain, or for wide defects with a distance greater than 4 teeth.

Guided bone regeneration (GBR) is the creation of new bone formation by creating a suitable environment for cells by inhibiting the migration of soft tissue-derived cells adjacent to the gap created by collagen membrane. Aghaloo et al. autogenous bone grafts and GBR have reported 83.5-90.4% of implant survival rates in autogenous bone graft applied areas and 95.5% of these in GBR areas.

Case

A 37-year-old male patient applied to the Department of Oral Implantology at Istanbul University Dentistry Faculty in April 2016 with aesthetic complaints due to lack of teeth in the lower and upper jaws. As a result of the radiological and clinical examination, hard tissue augmentation to the lower anterior region and soft tissue augmentation with free gingival graft were decided.

The patient's mandibular right canine was mobile. After the healing period, autogenous bone was collected with a safe scraper from the mandibular symphysis area. The aggregated autogenous bone graft was mixed with 0.5 gr of Geistlich Bio-Oss®. After 6 months healing period; 3.3 mm x 11 mm and 3 x 13 mm Camlog® implants were placed in the region. Due to the inadequate soft touch, free gingival graft was applied to the area. After the osseointegration period and soft tissue healing process, the implant was rehabilitated with a zirconium prosthesis.



Result

The combined use of autogenous bone graft and connective tissue graft in the ideal treatment of the aesthetic region with implants provides clinically successful results in cases where hard and soft tissue augmentation is required.

References

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