Three-Year Clinical and Radiographic Implant Follow-up in Sinus-Lifted Maxilla With Lateral Window Technique

ERDEM Necip Fazıl, DDS, PhD*, ÇİFTÇİ Alanur, DDS, PhD**, ACAR Ahmet Hüseyin, DDS, PhD***

*Assistant Professor, Department of Oral and Maxillofacial Surgery, School of Dentistry, Marmara University, Istanbul, Turkey.**Post Doctorate Researcher, Department of Oral and Maxillofacial Surgery, School of Dentistry, Marmara University, Istanbul, Turkey. ***Post Doctorate Researcher, Department of Oral and Maxillofacial Surgery, School of Dentistry, BezmialemVakif University, Istanbul, Turkey..

INTRODUCTION

Dental implant placement to the posterior edentulous maxilla could be challenging due to pneumatization of the maxillary sinus and low quality bone. If the residual alveolar bone height is <6mm, maxillary sinus lifting procedure can be mandatory.[1,6] The residual bone height is often used to determine whether implants can be placed simultaneously with sinus floor elevation or with staged approach. [3-5] In case if the bone height is <3mm, staged approach is a better option with a higher implant success rate (92 % to 100%).[6-10]

The aim of this study is to evaluate retrospectively 3 year outcome of implants, placed to posterior maxilla, augmented with staged approach and with the residual alveolar bone height ≤3mm before augmentation.

MATERIAL & METHOD

A total of 28 sinus floors were augmented with xenograft *(Bio-Oss)* and 58 screw-type titanium implants *(38 Straumann bone level with SLA surface and 20 Camlog screw line)* were inserted. The outcome measures were implant success based on implant stability and the absence of peri-implantitis, and marginal and apical bone resorption on periapical radiograph and prosthesis survival.

DISCUSSION

The implant success rate with 98.28% found in this study correlates with the literature.

RESULT

*57 of 58 implants with their prostheses remained functional with a success rate of 98.28%.

*None of the implants showed any sign of mobility or peri-implantitis.

*Both apical and cervical bone resorption around the implants were highest by the end of the first year.

CONCLUSION

The success rate of the was high in a 3-year term. Bio-Oss is an acceptable substitute autogenous bone and can be used as an augmentation material during the maxillary sinus lift procedure.

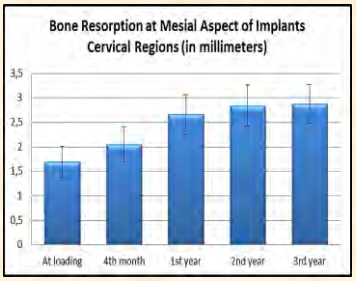

Fig 1. Bone resorption at mesial aspect of implants cervical region.

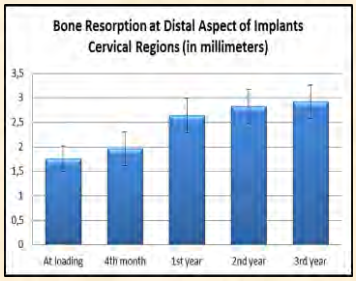

Fig 2. Bone resorption at distal aspect of implants cervical region.

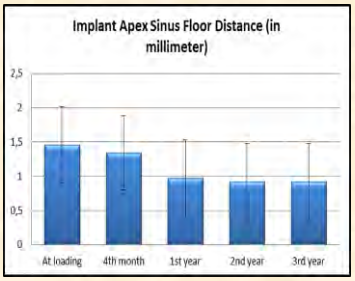

Fig 3. Implant apex sinus floor distance.

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