OsteoBiol® by Tecnoss

Buccal bone deficiency in fresh extraction sockets: a prospective single cohort study

ALVEOLAR REGENERATION

074

A Barone[1]
M Ricci[2]
GE Romanos[3]
P Tonelli[4]
F Alfonsi[2]
U Covani[1,2]

1 | Department of Surgical, Medical, Molecular and Critical Area Pathology, University of Pisa, Pisa, Italy
2 | Tuscan Dental Institute, Versilia General Hospital, Lido di Camaiore, Italy
3 | School of Dental Medicine, Stony Brook University, Stony Brook, NY, USA
4 | Department of Dentistry, University of Florence, Florence, Italy

ABSTRACT

After a tooth extraction, architectural changes occur in soft and hard alveolar tissues and these may jeopardize the aesthetic success of implant-supported restorations.

In this prospective single cohort study, the Authors aimed to evaluate the use of xenograft and collagen membranes in treating full or partial buccal bone defects of fresh extraction sockets in the aesthetic zone, which had a partial or complete deficiency of the buccal bone plate and that had been treated with a ridge preservation procedure and delayed implant placement. In 33 patients requiring tooth extraction in the anterior maxillary area and showing a complete or partial buccal bone plate deficiency (more than 2 mm) cortico-cancellous porcine bone (OsteoBiol® *mp3*®, Tecnoss®, Giaveno, Italy) and platelet-rich fibrin (PRF) with a collagen membrane (OsteoBiol® *Evolution*, Tecnoss®) were used to graft the extraction sockets, and the membranes were left exposed to the oral cavity with a secondary soft tissue healing.

The parameters investigated were: width of keratinized mucosa, facial soft tissue levels, clinical bone changes (measured with a clinical splint), implant and prosthesis failures, and peri-implant marginal bone changes.

All treated sites allowed the placement of implants and at the time of flap elevation, the augmented tissues seemed to be well vascularized, the presence of residual graft particles seemed well integrated into the augmented sites and all implants were stable after placement. The facial soft tissue level increased over time, the bone level showed an improvement and in the palatal area no bone changes were observed. No implant failed during the entire observation period.

CONCLUSIONS

Based on the findings from this study, the Authors concluded that "*within the limit of this prospective cohort study, ridge preservation showed an adequate regeneration of the buccal bone plate and stability of the facial soft tissue level for extraction sockets with large buccal bone defects. Implant installation and prosthetic restoration showed favourable outcomes after 1 year of this ongoing study. These preliminary findings should be confirmed by a longer follow-up study*".

ORIGINAL ARTICLE
Clinical Oral Implants Research
2015 Jul;26(7):823-30

Grafted with

BONE SUBSTITUTE
OsteoBiol® *mp3*®

MEMBRANE
OsteoBiol® *Evolution*

ALR