

Volumetric analysis of remodelling pattern after ridge preservation comparing use of two types of xenografts. A multicentre randomized clinical trial

ABSTRACT

This paper is a report of the results of a multicentre, single-blind, prospective and randomized clinical trial, performed by the Authors in order to analyse and compare the volumetric changes after ridge preservation procedures using two different biomaterials. Moreover, they evaluated the associations between outcome variables and pristine three-dimensional aspects of the ridges.

For the study, 38 patients subjected to single-tooth alveolar ridge preservation were selected and randomly allocated to each experimental group. The extraction sockets of the coll group were grafted with pre-hydrated collagenated cortico-cancellous porcine bone, with graft particle size between 600 and 1000 μm (OsteoBiol® mp3®, TecnoSS®, Giaveno, Italy). In cort group, the extraction sockets were grafted with cortical porcine bone alone, with particle size between 600 and 1000 μm (OsteoBiol® Apatos, TecnoSS®). A collagen membrane (OsteoBiol® Evolution, TecnoSS®) was used to completely cover the socket, left intentionally exposed to the oral cavity and stabilized with the use of sutures. A secondary soft tissue healing was obtained for all experimental sites. By means of scanned plaster casts, an analysis of volumes and areas was performed, and all measured variables were statistically compared.

Intragroup analyses at 3 months revealed that the two biomaterials showed similar behaviours with a minor loss in volume and ridge surface. Intergroup analysis at 3-month survey revealed that volume resorption of the coll group was significantly lower than that of the cort group.

CONCLUSIONS

Considering the 3rd month analysis, in their conclusions the Authors affirm that *“coll group showed a significantly lower reduction of ridge volume and a significantly smaller shrinkage of the basal area when compared to the cort group; moreover, the coll group experienced a smaller superior surface shrinkage when compared to the cort group, even though no significance was evaluated”*.

ALVEOLAR REGENERATION

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