

Comparison of Two Techniques for Lateral Ridge Augmentation in Mandible With Ramus Block Graft.

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Abstract

The purpose of this manuscript was to assess mandibular ramus block grafts used for augmentation of mandibular posterior segments, followed by subsequent implant placement. Twenty-four human subjects in need of lateral ridge mandibular augmentation were included in the current patient series.

INCLUSION CRITERIA:

recipient site had at least 10-mm residual height, but less than 4.3-mm bucco-lingual dimension. Autogenous bone blocks were harvested from the mandibular ramus. In the first group ramus block was used in association with platelet-rich fibrin and in the second in association with pericardium membrane. Implant surgery was performed 4 months after bone graft surgery when a total number of 44 implants were placed. Abutments were placed 4 months after implant surgery followed by final restoration. Ramus bone graft was successful in 100% patients for the first group and in 91.67% patients for the second group. Measurement on cone beam computed tomography revealed an average of 5.35mm of lateral ridge augmentation for group 1 and 5.099mm for group 2, achieved 4 months after surgery. All implants placed received fixed prosthetic restorations and are in use. Ramus block grafts can be used to allow optimal implant placement, with favor long-term success. Lateral ridge augmentation using mandibular ramus bone graft in association with platelet-rich fibrin is a more predictable and successful technique.