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”

Use of Corticocancellous Allogeneic Bone Blocks for Augmentation of Alveolar Bone Defects”

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ABSTRACT.

Purpose

The use of autogenous block bone grafts in bone regeneration procedures for alveolar ridge augmentation can be limited by donor site morbidity and complications. The purpose of the present study was to evaluate the efficacy of allogeneic corticocancellous iliac block grafts used for ridge augmentation prior to implant placement.

Materials and methods

Forty-one patients with severe ridge volume deficiency underwent augmentation using allogeneic corticocancellous iliac block bone grafts. After rigid fixation of the graft, the site was covered with a freeze dried allogeneic dura mater membrane, and the wound was closed with tension free suturing. Implants were placed 3 to 4 months after surgery. Three to 6 months after implant placement, panoramic radiographs were taken and implants were uncovered for prosthetic restoration.

Results

Of the 57 grafts placed, one showed 2.5 mm of resorption at the superior buccal aspect of the graft. No other clinical problems were observed. The block grafts were clinically well integrated into the recipient sites and the augmented bone remained stable throughout the implant placement procedures. Of the 84 implants placed, only one failed to integrate.

Conclusion

These results demonstrate that the use of allogeneic corticocancellous iliac block bone grafts in conjunction with guided bone regeneration principles is a viable alternative to autogenous grafts in selected patients with alveolar ridge deficiencies.



Rigid fixation of the bone blocks.



Vertical ridge augmentation and rigid fixation for graft stabilization.

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