Guided Bone Regeneration in Lower Anterior Using Symphysis Block Graft: A Case Report

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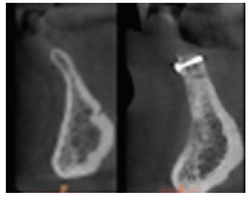
Introduction

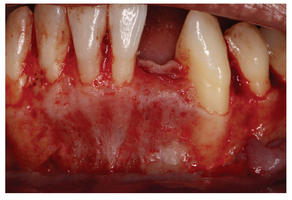
Bone augmentation procedures have become more predictable with the advancement of bone graft materials along with different barrier membranes available in the market and block grafts become less of a treatment of choice. This case study reports the predictability of bone augmentation procedure using autogenous block graft harvested from the patient's symphysis region and how a complication risen during the procedure was solved.

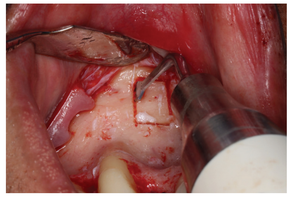
Materials and Methods

40-year-old patient missing tooth #23 planned for implant placement had CBCT taken. Scan revealed 2mm width of bone available to place dental implant in prosthetically driven location. Delayed implant approach was decided with subsequent implant placement. Symphysis block graft was harvested just apical to the defect area at tooth #23 using piezo surgical unit. During block graft fixation, block graft fractured.

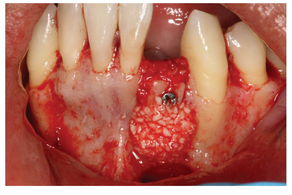
Bigger piece of the graft was oriented horizontally and coronally and rest of the defect was filled with allograft. Collagen absorbable membrane was placed over the area and tension free primary closure was achieved.



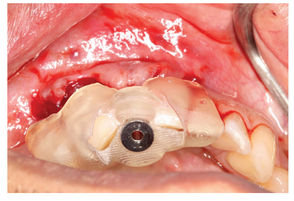






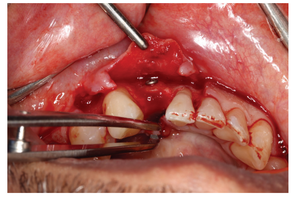












Results

Healing was uneventful. Patient reported slight discomfort during the first 2 weeks of healing mainly from the donor site. No loss of adjacent teeth vitality noted, and no alteration of chin facial contour observed. CBCT was taken at 4 months after surgery and bone width gain was 2.5mm allowing an implant placement

Conclusion

Guided bone regeneration using symphysis block graft is predictable procedure when done properly. Care must be taken when securing the block graft with bone fixation screw and leaving a safety distance of a minimum of 5mm from adjacent root apices and vital structures.