

The Citagenix Clinical Report

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Immediate Implant Placement and Sinus Lift with Simultaneous Guided Bone Regeneration

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This case illustrates immediate placement of implants in conjunction with a sinus elevation procedure facilitated by a bone graft substitute.

A 62 year old male patient was seen for a failing fixed bridge at sites #3 (16 – FDI two-digit notation) to #6 (13), due to the fracture of abutment tooth #6. Post and core build-up on the abutment at tooth #6 led to the horizontal fracture at the gingival level (Fig. 1).

The bridge covering teeth #3 to #6 was sectioned mesial to tooth #3, retaining the crown, but removing the segment encompassing teeth #4 (15), #5 (14) and #6. Tooth #6 was extracted with the Easy X-Trac® system maintaining gingival and osseous architecture (Fig. 2). Following the extraction, a Straumann® implant was placed at site #6 with simultaneous bone grafting using DynaBlast™ (Citagenix Inc., Montreal, Qc) to fill the periimplant defect. At site #4, an osteotome internal

sinus lift procedure with DynaBlast bone graft material and simultaneous placement of a second Straumann implant was performed (Fig. 3). Small internal healing caps were placed on the implants for 1 month. Final impressions and placement of abutments for a cementable final restoration were performed after 4 months of healing, and the final restoration was placed at 5 months post-surgery (Fig. 7).

DynaBlast, comprised of demineralized bone and RPM (reverse phase medium – a bioresorbable carrier that demonstrates increased viscosity with increased temperature), allowed for easy handling and precise application into the periimplant extraction defect at site #6 and allowed for a non-invasive osteotome internal sinus lift procedure at site #4. The increase in radiographic density of the DynaBlast bone graft material in the sinus further underscored the successful outcome of the procedure.

The implants were revealed after 3 months of healing with a punch-type uncovering of implants. Larger healing caps were placed on the implants for 1 month. Final impressions and placement of abutments for a cementable final restoration were performed after 4 months of healing, and the final restoration was placed at 5 months post-surgery (Fig. 7).

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Fig. 1. Unrestorable cuspid



Fig. 2. Extracted tooth and sectioned bridge



Fig. 3. Implants placed at sites #4 and #6 (13)



Fig. 4. DynaBlast placed in socket



Fig. 5. Post-operative periapical radiograph



Fig. 6. Periapical radiograph of completed restoration



Fig. 7. Final restoration