DynaBlast™ Demineralized Bone Matrix (DBM) with Cancellous Bone

DynaBlast is a composite graft product that combines osteoinductive and osteoconductive elements in a proprietary, reverse phase medium. This powerful 2-in-1 solution combines:

- Demineralized bone, which stimulates new bone growth
- Cancellous chips, which provide a natural structural scaffold to encourage the attachment of osteogenic precursor cells

Superior Handling

DynaBlast incorporates a biocompatible Reverse Phase Medium that results in a highly malleable graft that is easy to handle, mold or pack into any defect.

Excellent Graft Containment

DynaBlast thickens at body temperature and resists irrigation, minimizing the likelihood of migration from the surgical site.

Unparalleled Testing

Unlike some other DBM products, every lot of DBM used in DynaBlast is rigorously tested to confirm that it contains the level of osteoinductivity to form new bone.

Ready-to-use Application

DynaBlast is available for immediate use with no refrigeration, thawing, mixing or other preparation needed. DynaBlast can be used either alone or as a bone graft extender indicated for augmentation or reconstructive treatment of the alveolar ridge.

For additional information call your local product specialist or call us toll free at: 1-877-243-6724

www.citagenix.com
Immediate Implant Placement and Sinus Lift with Simultaneous Guided Bone Regeneration

This case study demonstrates immediate placement of implants in conjunction with a sinus elevation procedure utilizing a bone graft substitute.

A 45 year old female patient was referred by her primary dental provider to evaluate missing and decayed dentition in the posterior maxillary right quadrant. Clinical and radiographic examination demonstrated decay and fracture of tooth #2 (17 – FDI two-digit notation) with failed endodontic therapy; region #3 (16) was edentulous; and tooth #4 (15) had a fractured crown with a retained endodontically treated root. The patient had a history of first premolar extractions x 4 with orthodontic treatment as a child. Prior medical history was unremarkable, and the patient is a non-smoker.

Under IV sedation and profound local anesthesia, tooth #2 and #4 were extracted carefully without difficulty (Figure 1). Following extraction, access was created through the lateral maxillary sinus wall preserving the integrity of the sinus membrane. The membrane was carefully lifted off the sinus floor. Straumann Standard Plus implants were placed into sites #2 and #4 successfully with nice angulation and orientation and good primary stability (Figure 2). DynaBlast™ (Citagenix Inc., Montreal, Quebec) bone graft substitute was placed around the coronal aspect of the implant in position #2 to fill the void between the socket wall and the implant. DynaBlast was also placed around the implants in positions #2 and #4 where they extended through the maxillary sinus floor (Figure 3). Primary closure was achieved without complication.

Immediately after implant and DynaBlast placement, a radiograph was taken. With the DynaBlast comprised of demineralized bone, cancellous chips and RPM (reverse phase medium - a bioregradable carrier that demonstrates increased viscosity with increased temperature), the radiograph initially demonstrated a radiolucency where the bone graft material was placed (Figure 4). Although there is a mineralized component to the graft material, the site will remain relatively radiolucent. The graft site will increase in radiodensity during healing, thereby providing a radiographic indicator of bone growth. The patient returned after one week without complaints and demonstrated excellent soft tissue healing.

After 8 weeks, a follow-up visit also demonstrated excellent soft tissue healing. Radiographs showed radiodensity around the implants both coronally and apically, which is consistent with bone regeneration due to the graft material at both implants sites #2 and #4 (Figure 5). Based on the progression of increased opacity of the bone grafted regions representative of bone regeneration over the healing interval, stage two of implant placement was completed with 4 mm solid abutments torqued to 35 Ncm.

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