

# Peri-implantitis Treated with AlloSpark-GF®-Enhanced Bone Allograft & Guided Bone Regeneration (GBR)

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## PRESENTATION & DIAGNOSIS

Following removal of a restored implant at site #7 for severe peri-implant bone loss, the site was grafted with bone allograft (OraGraft® FDDBA) and a resorbable collagen membrane. After 8 months of healing, a second implant (Southern Implants Co-Axis® Deep Conical) was placed by computer-guided surgery with immediate, non-loaded temporization; a screw-retained, one-piece crown was delivered ~5 months later. **1** On routine maintenance, deep (6mm) probing depth with bleeding on probing was detected. **2** A peri-apical radiograph suggested marginal bone loss had occurred. Regenerative surgery was planned to correct the osseous defect and improve the implant prognosis.

## GRAFT PREPARATION

**3** A cortical/cancellous mineralized bone allograft (OraGraft®) was hydrated 1:1 with a solution of multiple allograft-derived growth factors (AlloSpark-GF®) and allowed ~30 minutes of absorption before placement into the defect.

## SURGICAL PROTOCOL

**4** A full-thickness mucoperiosteal flap was reflected. The circumferential osseous defect was manually debrided; the implant surface and lesion walls were detoxified with an Er:YAG laser (Morita), followed by serial irrigation with molecular iodine (IoTech), doxycycline and sterile saline. **5** The AlloSpark-GF®-enhanced bone allograft obturated the defect to the level of the implant platform. **6** A ribose cross-linked collagen membrane was adapted around the platform. **7** The crown was re-inserted and primary closure was achieved.

## OUTCOME

**8** A post-operative radiograph demonstrated the height of the grafted site. **9** 5-month CBCT scan showed significant facial and crestal bone regeneration. Clinically, no probing depths exceeded 3mm, with absence of bleeding on probing.

