

Guided Tissue Regeneration Between a Natural Tooth and an Implant with OSSIX® Plus

A Case Study by Dr. Sausha Toghranegar DMD, MS

At Dentsply Sirona Regenerative Solutions, we strive to provide you with the latest advancements and trends in guided bone regeneration and guided tissue regeneration (GBR/GTR). Learn from clinical case studies tailored for dental professionals like you and elevate your practice.

Background

In this case, the patient is a 60-year-old male who has a history of smoking. It has been more than ten years since the patient quit smoking. Patient had developed a large periodontal defect on the distal of #29 and wanted to keep #29 while replacing #30 with an implant. An endodontist tested #29 and deemed it vital.

Case Description

The plan was to treat #29 periodontally and place an implant at #30, then graft the defect between the implant and #29 with particulate graft and OSSIX® Plus membrane layered over it.

A crestal incision was made with sulcular incisions extending onto #28 and #29. A full thickness flap was raised. Defect on the distal of #29 was thoroughly debrided with ultrasonic and highspeed instrumentation. The occlusion of #29 was adjusted as well. Drilled osteotomy occurred at #30 and an implant was placed. A particulate allograft (mineralized cortical/cancellous) was placed in the periodontal defect. OSSIX® Plus (25x35mm) was layered over the particulate graft. A horizontal mattress suture was placed

to approximate the tissues and help hold the membrane/graft down. The remainder of the flap was closed with interrupted sutures using a combination of 5-0 Chromic Gut and 5-0 PTFE. Primary closure was achieved. At the time of uncovering, the membrane itself had ossified. The tissues on the distal of #29 regenerated, allowing the patient to successfully keep #29 and begin restoration on the #30 implant.

The OSSIX® Plus membrane was used to rescue #29 by aiding the tissue regeneration on the distal and supporting new bone on the mesial of the #30 implant.

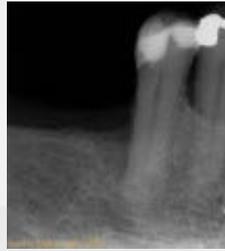
Pre-Op



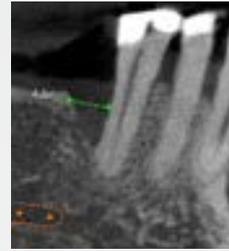
Pre-op (6mm pocket)



Pre-op (6mm pocket)



Pre-op PA



Pre-op CBCT

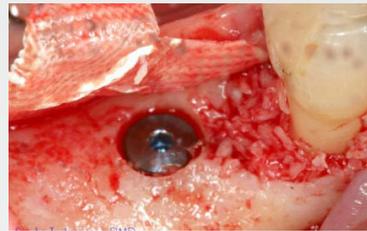
Surgery



Periodontal defect, cleaned



Creating osteotomy



Particulate allograft and implant in place



OSSIX® Plus Membrane layered in place



Sutured with primary closure



Immediate post-op PA

Post-OP



Nine-month post-implant surgery



Residual membrane still present



Implant buried in new bone



Bone drilled away to find cover screw



Healing abutment placed



Ready for restoration (Eleven-month post-op)

OSSIX® Plus - Barrier Redefined



Is a resilient resorbable collagen barrier membrane that maintains barrier functionality for 4-6 months¹. It is resistant to degradation when exposed for 3-5 weeks⁵ and has excellent handling properties, adapting and conforming to defects, and adhering well to tissue⁶. OSSIX® Plus maintains a high biocompatibility and has been observed to undergo ossification¹⁻⁵.



About the Clinician, Sausha Toghranegar DMD, MS

Diplomate of the American Board of Periodontology

Dr. Sausha Toghranegar is originally from Tampa, FL, where he currently practices. He graduated dental school from Nova Southeastern University. He continued his education at Nova to pursue his Master's degree and complete his periodontal residency. Dr. Toghranegar focuses most of his practice to hard/soft tissue augmentation and implant dentistry. He emphasizes the use of digital tools and 3D technology to bring optimal and predictable care to his patients.

Reference

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4. Artzi Z, Weinreb M, Carmeli G, Lev-Dor R, Dard M, Nemcovsky CE. (2008) Histomorphometric assessment of bone formation in sinus augmentation utilizing a combination of autogenous and hydroxyapatite/biphasic tricalcium phosphate graft materials: at 6 and 9 months in humans. Clin. Oral Impl. Res. 19; 686–692.
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6. Data on file

*Dr. Toghranegar receives financial support from Dentsply Sirona

Please read the [IFU](#) before use and for additional information on indications, contraindications, warnings, and precautions.

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