

GBR and Implant Placement Following Failed Socket Graft 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

A 28-year-old healthy female patient had developed a recurrent infection with a draining fistula on #8 after she injured the tooth when falling from an electric scooter. Following endodontic therapy, the tooth redeveloped pain.

Case Description

A CBCT was taken. The radiograph showed a large periapical lesion with limited ability to be able to do an immediate implant. The tooth was extracted, and the socket was grafted with an allograft particulate graft. After four months of healing, another CBCT was taken to plan for the implant. The bone had healed poorly, leaving the patient with minimal bone for implant placement. The plan was to simultaneously place the implant and to graft the defect and regenerate the bone.

A surgical guide was planned and printed to be used for the implant placement. A crestal incision was made with sulcular incisions extending onto the neighboring teeth. A full thickness flap was raised. The guide helps to facilitate the ideal placement despite the poor bone quality. Particulate allograft (mineralized cortical/cancellous) was placed on the facial bone.

OSSIX® plus (15x25mm) was layered over the particulate graft followed by a layer of platelet rich fibrin. 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 PGA. Primary closure was not obtained which is not necessary when using the OSSIX® Plus membrane⁵. Four months later the graft was uncovered to find complete bone regeneration of the facial bone.

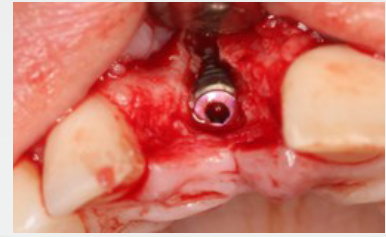
Pre-Op



Surgery



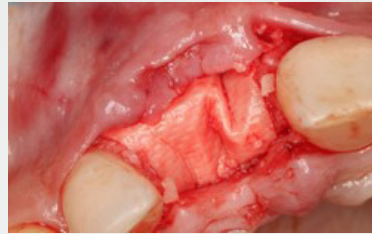
Surgical guide



Implant placed with facial bone loss



Four months after socket graft
(poor healing)



OSSIX® Plus layered over allograft



Sutured

Four Months Post-Op



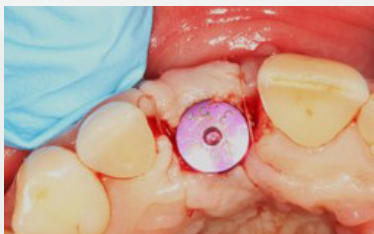
Four months post implant surgery



Implant buried in new bone



Bone drilled away to find cover screw



Healing abutment placed

Scans

Pre-Op



Pre-op PA

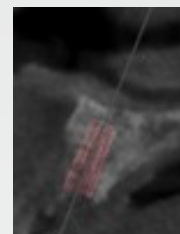


Pre-op CBCT

Four Months Post-Op



Four months after socket graft



Four months after
socket graft

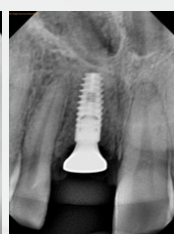
Six Months Post-Op



Six months post-op



Implant placed
PA



Four months post
implant surgery

OSSIX® Plus | Barrier Redefined



OSSIX® Plus 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 tissue⁵. 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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Please read the [IFU](#) before use and for additional information on indications, contraindications, warnings, and precautions.

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