

Horizontal Bone Augmentation with OSSIX™ Bone and OSSIX® Volumax

A Case Study by Dr. Francisco Marchesani

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 66-year-old male patient, classified as ASA 1, sought consultation for a gingival fistula in the anterior teeth area.

Case Description

Both central incisors were extracted, implants were immediately installed, followed by horizontal guided bone regeneration (GBR), soft tissue improvement, and provisional placement.

After achieving primary stability compatible with immediate function, OSSIX™ Bone that has been cut into smaller pieces was used to fill the gap and perform horizontal bone augmentation. Next, OSSIX® Volumax was placed on the bone graft and allowed to hydrate from the blood of the surgical bed. Once this process was complete, closure and provisionalization were performed. The clinical and radiographic follow-up after three years can be seen below.



About the Clinician, Dr. Francisco Marchesani

Dr. Marchesani completed his university studies at the University of Concepción, Chile, in 1986, where he received his bachelor's degree in Dentistry and degree of a Dental Surgeon. In 1993, he contracted the Dexeus Center in Barcelona, Spain, and carried out implantology studies. He is a former Associate Professor of the University of Concepción and former Professor of the Department of Pathology and Diagnosis.

Dr. Marchesani is an active member of the Chilean Implantology Society, the American Academy of Osseointegration, and the European Osseointegration Association.

Pre-Op

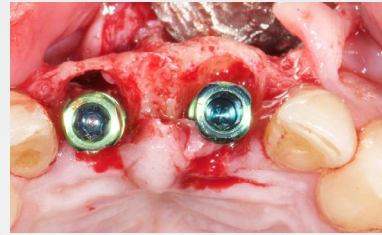


Before treatment

Surgery



Immediate extraction

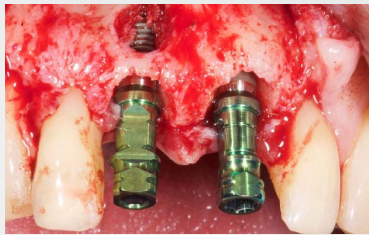


Horizontal defect

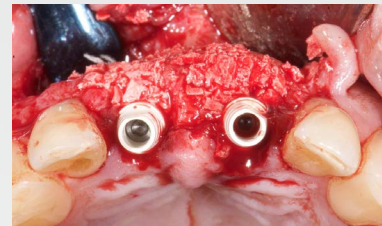
Six Months Post-op



Soft tissue after six months of healing



Vertical defect

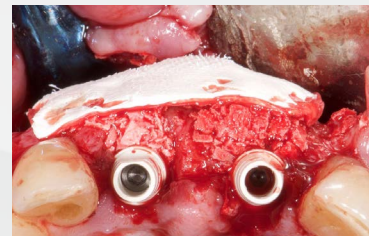


OSSIX™ Bone

Three Years Follow Up



Definitive crowns after three years

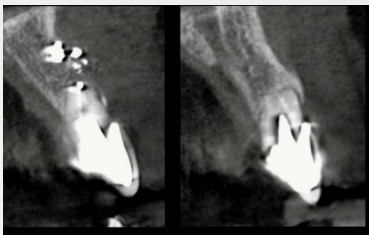


OSSIX® Volumax



Vertical soft tissue level

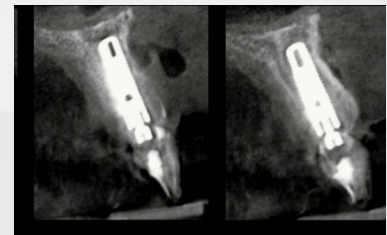
Scans



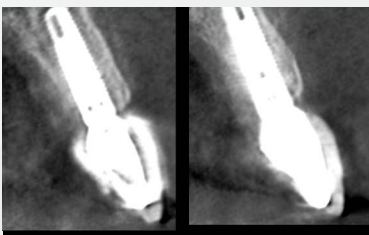
Pre-op



Three-month post-op



Six-month post-op



Three-year post-op



OSSIX™ Bone - Your Choice for Neof ormation of Vital Bone

The OSSIX™ Bone is a revolutionary regenerative bone graft that provides increases amount of vital bone over a 4-month healing period¹. In addition, OSSIX™ Bone was remodeling into new bone without residual graft particles¹. This sponge-like ossifying² block, powered by GLYMATRIX® technology, provides an ample environment for vascularization and cellular proliferation³. Due to its structure, there is no particle migration^{1,5}. This unique bone graft can be used in various regenerative procedures, while one of its advantages is in socket preservation without a membrane¹.



OSSIX® Volumax - Real Volume, Strong Infrastructure

The innovative OSSIX® Volumax scaffold is designed to add volume and promote ossification⁴. It is ideal for guided bone and tissue regeneration, its 2mm thickness and expandable nature ensures optimal handling, contributing positively to hard and soft tissue quality⁴.

Reference

1. Casarez-Quintana A, et al (2022). Comparing the histological assessment following ridge preservation using a composite bovine-derived xenograft versus an alloplast hydroxyapatite-sugar cross-linked collagen matrix. Journal of periodontology, 2022;1-10
2. Alveolar Ridge Restoration Using a New Sugar Cross-linked Collagen-Hydroxyapatite Matrix in Canine L-shape Defects. Zubery Y, Goldlust A, Bayer T, Woods S, Jackson N, Soskolne W.A., AO Academy of Osseointegration 2017 Annual Meeting
3. Brant-Roznavi M, Aizenbud D, OSSIX® Volumax Collagen Scaffold Characterization by Cell Proliferation, differentiation and Vascularization, Rambam Health Care Campus, Faculty of Medicine –Technion, Israel, 2017.
4. Tavelli L, Barootchi S, Rodriguez MV, Meneghetti PC, Mendonça G, Wang HL. Volumetric Outcomes of Peri-implant Soft Tissue Augmentation with a Xenogeneic Cross-Linked Collagen Scaffold: A Comparative Clinical Study. Int J Periodontics Restorative Dent. 2023 Jul-Aug;43(4):415-422.
5. Luigi Canullo DDS, PhD et al. Sinus floor augmentation using crestal approach in conjunction with hydroxyapatite/cross-linked collagen sponge: A pilot study. Clin Implant Dent Relat Res. 2023;1-10.

*Dr. Marchesani receives financial support from Dentsply Sirona.

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

For more information on OSSIX® regenerative products and activities in your region:

regenerative.dentsplysirona.com