

Simultaneous Ridge Augmentation Using OSSIX® Plus

A Case Study by Dr. Alberto Monje, DDS, 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 patient who received supportive periodontal care reported experiencing acute pain in the lower incisor during her routine check-up examination. Subsequent cone-beam computed tomography revealed advanced bone loss.

Case Description

Due to class III mobility of this tooth, it was decided to extract the tooth and restore it with an implant-supported single crown. Following tooth extraction, a crater-like defect was observed. The procedure decided for this case was a simultaneous ridge augmentation assisted with a mixture of autogenous and allogeneic bone filler using OSSIX® Plus as the barrier membrane. After four months, ideal implant position was achieved.

In a two-year follow-up, soft and hard tissue stability was noted. In addition, a wide band of keratinized mucosa was created around the implant area, which is beneficial for maintaining oral health.



About the Clinician, Dr. Alberto Monje

Dr. Alberto Monje obtained his certificate and Masters in Periodontology from the University of Michigan, Department of Periodontics and Oral Medicine. He is certified by the American Board of Periodontics.

He was the recipient of the ITI Scholarship for 2016-2017 at the University of Bern mentored by Prof. Daniel Buser.

Dr. Monje is a PhD in the field of Alveolar Bone Architecture granted by the University of Granada in Spain. He maintains a private practice exclusively in Periodontics and Implant Dentistry.

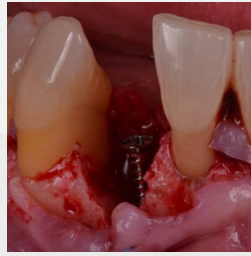
He is an Adjunct Professor at the Department of Periodontics of the Universitat Internacional de Catalunya in Barcelona and at the Department of Periodontics and Oral Medicine at the University of Michigan, Ann Arbor, Michigan, USA.

Pre-Op



Baseline case scenario

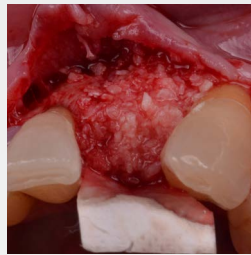
Surgery



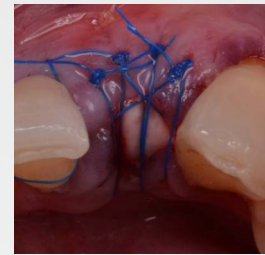
Crater-like defect after tooth extraction



Frontal view of autogenous bone and allogeneic bone filler mixed for implant site development. OSSIX® Plus was placed lingually prior to placing the bone graft



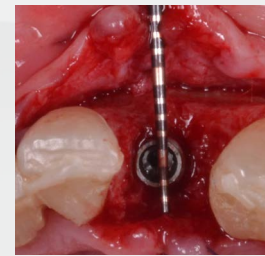
Occlusal view



Occlusal view of flaps positioned and sutured with OSSIX® Plus partially exposed. The sutures were placed over the membrane for stabilization



Implant placement at four-month follow-up



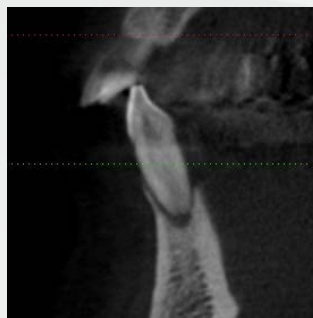
Ideal three-dimensional implant position

Post-Op



Clinical evaluation at eighteen-month follow-up

Scans



Cone-beam computed tomography indicating advanced bone loss



Cone-beam computed tomography at two-year follow-up (taken for other reasons) demonstrates the stability of the buccal bone



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.

Reference

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2. Tal H, Kozlovsky A, Artzi Z, Nemcovsky CE, Moses O. (2008) Long-term biodegradation of cross-linked and non-cross-linked collagen barriers in human guided bone regeneration. Clin Oral Implants Res. 19(3):295-30.
3. Capri G, Smukler H, Landi L. (2012) A less invasive approach to mandibular horizontal ridge augmentation using autogenous bone: A human histological case series. The Journal of Implants and Advanced Clinical Dentistry 4:27-36.
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.
5. Heather R. Hong et al. (2018) Ridge preservation procedures revisited: A randomized controlled trial to evaluate dimensional changes with two different surgical protocols, Journal of Periodontology, Volume 90, Issue4.

**Dr. Monje receives financial support from Dentsply Sirona.

Warning

OSSIX® Plus must not be used in patients with known collagen hypersensitivity, sensitivity to porcine-derived materials, or suffer from autoimmune diseases and connective tissue diseases. As the membrane is of a collagen origin, allergic reactions may not be entirely excluded.

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