LEADING REGENERATION

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Biomaterials

Peri-Implantitis

Overview

Peri-implant disease is a pathological condition around dental implants. The disease ranges from reversible mucositis lesions (reflecting a host's response to bacterial challenge) to non-reversible peri-implantitis, where significant alveolar bone has been lost.[1]

Clinical Considerations

In treating peri-implant infections, an analogous approach to systematic periodontal therapy should be considered. The removal of bacterial plaque is a prerequisite to prevent disease progression. The corrective phase of the systematic therapy of peri-implant infections should not begin until a stable oral hygiene and plaque index (PI) value of < 1 is achieved.[2]

After careful re-evaluation of the situation after the non-surgical phase, a surgical phase might be the next treatment step. The surgical procedure includes an access flap to provide access for debridement and decontamination of the infected implant surface. When defect fill of peri-implantitis defects is required, use of a native bone mineral with or without a collagen membrane has resulted in marked clinical improvements long-term.[3-6] Furthermore, Geistlich Bio-Oss® has been found to provide more stable radiographic bone fill than autologous bone,[7] and a recent review indicates that using membranes may be more effective.[8]

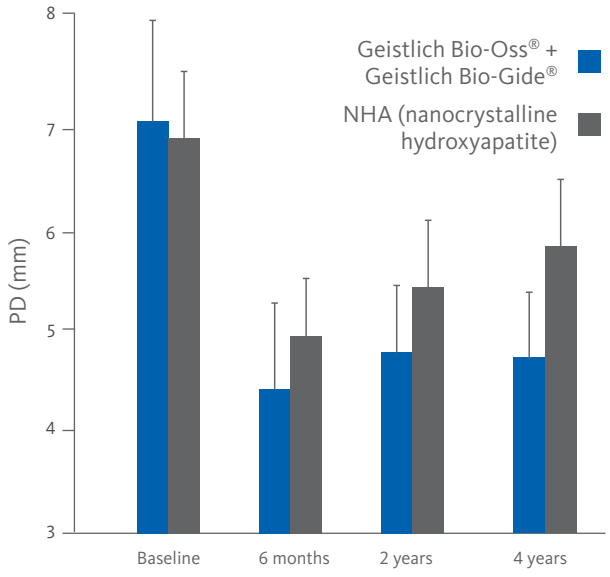
Peri-Implant Mucositis

Inflammatory lesions of the peri-implant mucosa with bleeding on probing and/or suppuration, but without bone loss.

Peri-Implantitis

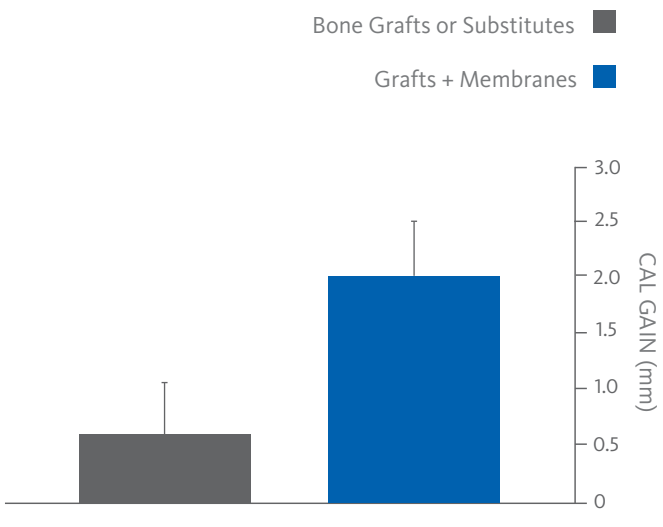
Inflammatory lesions that include progressive bone loss.

Pocket Depth (PD), long-term follow-up



Surgical regenerative treatment with Geistlich Bio-Oss® and Geistlich Bio-Gide® resulted in higher PD reduction and CAL gains than NHA over a period of 4 years.[9]

CAL Gain (MM)



A recent review indicates that a regenerative approach may be more effective with membranes.[4,6] Scientific evidence on Peri-Implantitis is still limited. 21 Studies (8 RCTs) have been reviewed.

Case Documentation

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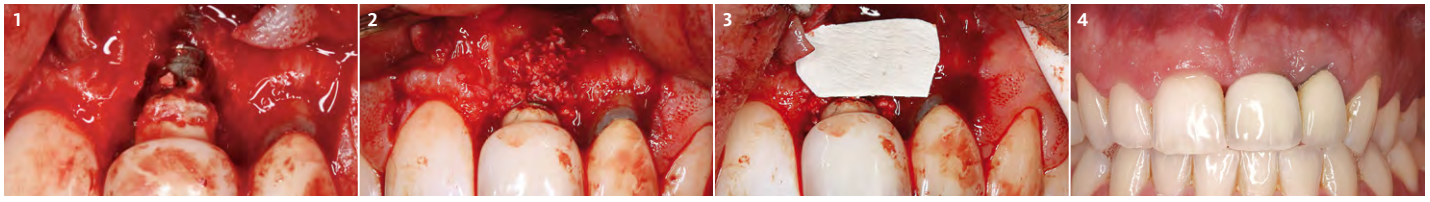
Regenerative Peri-Implantitis Treatment

Prof. Lisa J. A. Heitz-Mayfield, Perth, Australia

Objectives

- Maintain the implant in function
- Resolve the peri-implant infection
- Regenerate the peri-implant intraosseous defect
- Prevent the recurrence of peri-implant infection, surgical access was planned in order to remove the excess luting cement which was clearly visible on the radiograph
- Achieve long-term optimal esthetic results



1 Intra-operative view of the implant and bony defect after flap elevation and before removal of the excess luting cement on the surface of the implant and crown.

2 After removal of the inflammatory granulation tissue and decontamination of the implant surface the intrabony portion of the defect is filled with Geistlich Bio-Oss® granules.

3 The augmented site is covered with the native collagen membrane Geistlich Bio-Gide®.

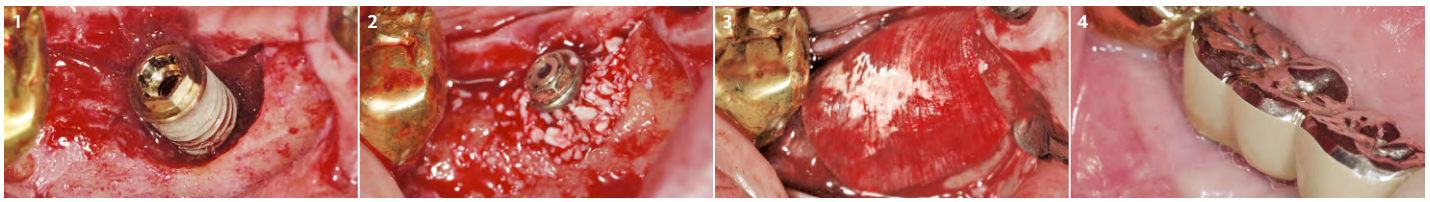
4 Clinical situation 4 months after regenerative surgical treatment of the implant.

Maintenance of Implant in the Mandible

Dr. Brad McAllister, Portland, OR, USA

Objectives

- Maintenance of implant at tooth #31
- Regenerate circumfenstrial bone and gain keratinized tissue



1 Intra-operative view showing the crater-like defect around the implant.

2 The bony defect is filled with Geistlich Bio-Oss® granules.

3 The whole augmented area is covered with a Geistlich Bio-Gide® membrane.

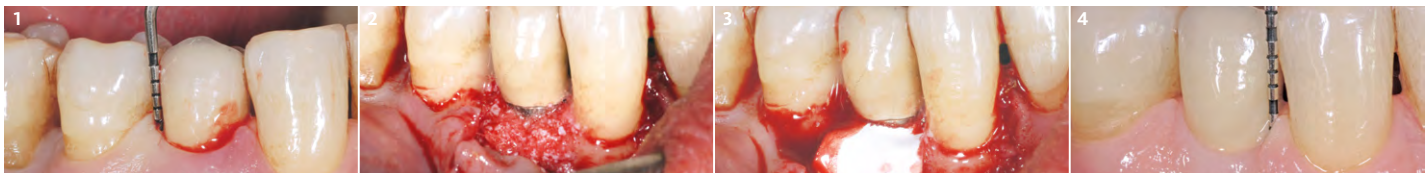
4 Clinical situation with final restoration 6 months after bone augmentation procedure.

Regeneration of Deep Peri-Implantitis Induced Bony Defect

Dr. Mario Roccuzzo, Turino, Italy

Objectives

- Functional restoration of implant
- Regenerate circumferential bone defect at implant in tooth #28



1 Deep pocket and bleeding on probing mesial and distal to the implant.

2 Geistlich Bio-Oss Collagen® is applied around the peri-implantitis defect.

3 Geistlich Bio-Gide® is positioned to cover Geistlich Bio-Oss Collagen® and provide stability to the augmented site.

4 Clinical situation 2.5 years post-operative shows stable conditions.

For additional information on **Peri-Implantitis,** please visit the dental professional section of our website: **www.geistlich-na.com**

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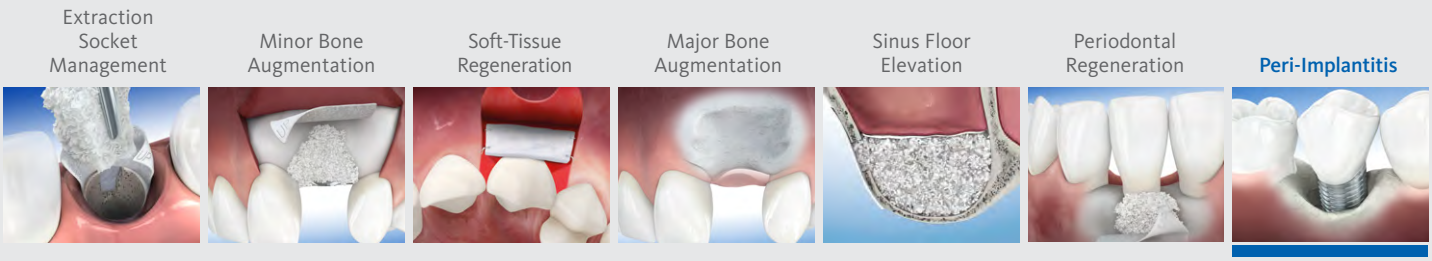

Therapeutic Areas

At Geistlich Biomaterials, we are committed to developing treatments that are uniquely matched to the clinical situations you see every day. That's why we do more than bring you a family of products – we provide proven solutions in specific therapeutic areas.

The recommended Geistlich products below are the ideal biomaterials for use in **Peri-Implantitis** procedures.

Recommended Products for Peri-Implantitis Procedures

BONE SUBSTITUTES

Geistlich Bio-Oss®

Geistlich Bio-Oss Pen®

Geistlich Bio-Oss Collagen®

MEMBRANES

Geistlich Bio-Gide®

COMBINATION

Geistlich Combi-Kit Collagen

The Ideal Geistlich Biomaterials for Peri-Implantitis Procedures

When used in combination, these proven and reliable products provide a foundation for long-term clinical success in regenerative dentistry.

Geistlich Bio-Gide® ensures undisturbed bone regeneration and prevents soft-tissue ingrowth, while Geistlich Bio-Oss® provides a stable scaffold for bone formation leading to long-term volume preservation.

For additional information about Peri-Implantitis, please visit the Dental Professional section of our website: www.geistlich-na.com

CAUTION: Federal law restricts these devices to sale by or on the order of a dentist or physician.

For information on indications, contraindications, precautions, and directions for use, please refer to the Geistlich Bio-Oss®, Geistlich Bio-Oss Collagen® and Geistlich Bio-Gide® Instructions for Use at: **www.geistlich-na.com/ifu**

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