

A clinical photograph showing a surgical procedure on the maxilla. A large, rectangular, pinkish-red fibrous graft is placed over a surgical site. Below the graft, the roots of several teeth are visible, with some showing signs of recession. The surrounding tissue is pink and appears to be in the process of healing.

A CASE REPORT BY
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Root Coverage for Multiple
Adjacent Teeth in the Maxilla
with Geistlich Fibro-Gide®



▶ The Situation

The patient is a healthy, 60 year old female who presented to our clinic with a chief complaint of progressive gum recession which had led to compromised esthetics and sensitivity involving the maxillary left lateral incisor (#10), canine (#11), and first bicuspid (#12) teeth. The teeth in question had 3-4 mm of gingival recession on the buccal surface with a sufficient zone of keratinized gingiva. These teeth also had obvious cervical abrasions.

▶ The Risk Profile

Esthetic Risk Factors	Low Risk	Medium Risk	High Risk
Patients' health	Intact immune system	Light smoker	Impaired immune system
Patients' esthetic requirements	Low	Medium	High
Height of smile line	Low	Medium	High
Gingival biotype	Thick - low scalloped	Medium - medium scalloped	Thin - high scalloped
Shape of dental crowns	Rectangular		Triangular
Infection at implant site	None	Chronic	Acute
Bone height at adjacent tooth site	≤ 5 mm from contact point	5.5 - 6.5 mm from contact point	≥ 7 mm from contact point
Restorative status of adjacent tooth	Intact		Restored
Soft-tissue anatomy	Intact		Compromised
Bone anatomy of the alveolar ridge	No defect	Horizontal defect	Vertical defect
Classification of recession	RT1 i.e. intact interdental bone and soft-tissues		
Severity of recession	Mild to moderate		
Amount of keratinized gingiva	2 mm or greater for all teeth involved		



SPECIAL INTEREST
Periodontal plastic surgery
Guided Bone Regeneration

"The patients' main priorities were to improve esthetics and reduce/eliminate root sensitivity. Soft-tissue grafting was done with autologous connective tissue in other areas of her mouth many years ago and she was hesitant to undergo surgery again if it involved harvesting tissue from her palate due to the post-operative pain she experienced after these previous procedures."

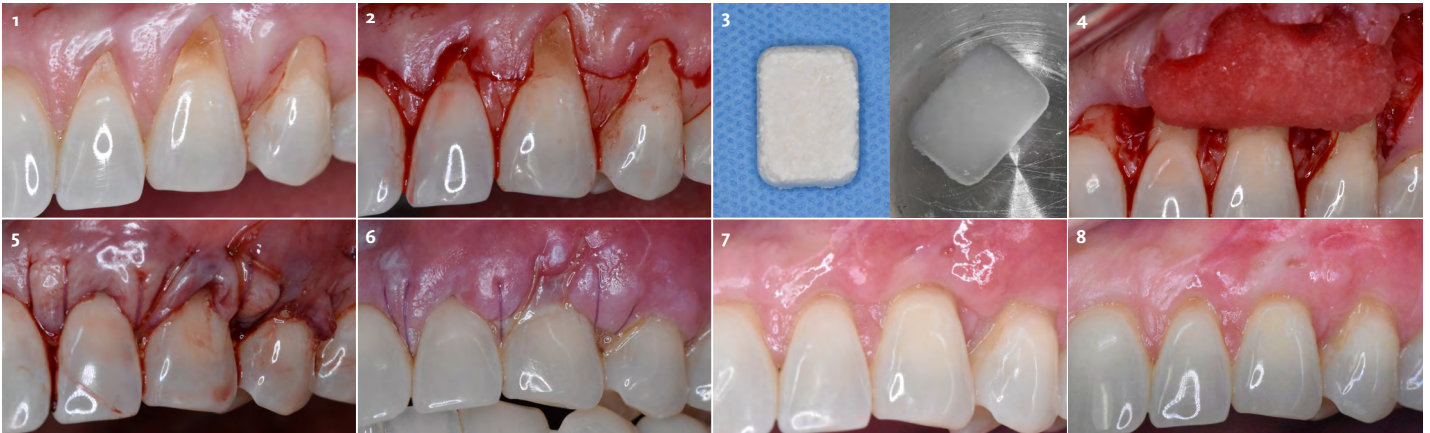
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Periodontist

Dr. Vinay Bhide is a board certified Periodontist with a special interest in periodontal plastics and reconstructive surgical procedures. Dr. Bhide did his dental and specialty training at the University of Toronto. In addition to private practice, Dr. Bhide is a clinical instructor in the Department of Periodontics at the University of Toronto. He is also a staff periodontist in the Center for Advanced Dental Care and Research at Mount Sinai Hospital, Toronto.



▶ The Approach

Treatment goals for this case were to obtain complete root coverage, increase soft-tissue thickness, and reduce/eliminate cervical sensitivity. A split-thickness envelope flap approach was used. Geistlich Fibro-Gide® was trimmed, hydrated with saline, and placed over the exposed root surfaces. The flap was coronally advanced in a tension-free manner to completely cover the matrix and exposed root surfaces.



- 1 Pre-operative condition: Note that the gingival recession of 3-4 mm is evident as is the cervical root abrasions. The interdental papillae completely fills the embrasure space.
- 2 Incision design showing the sulcular incisions with horizontal incisions across the interdental regions ending with a remote oblique vertical releasing incision distal to the first bicuspid tooth.
- 3 Geistlich Fibro-Gide® is trimmed in a dry state to 10 x 15 x 6mm. The corners were trimmed for better adaptation and the matrix was then hydrated in sterile saline solution.
- 4 The interdental papillae were de-epithelialized and Geistlich Fibro-Gide® was placed over the exposed roots extending onto the bone. Geistlich Fibro-Gide® was not secured with sutures.
- 5 Internal periosteal releasing incision was made to allow tension-free coronal advancement of the buccal flap to completely cover Geistlich Fibro-Gide®. The flap was secured with 5-0 Monocryl® sutures.
- 6 1 week post-operative visit: the healing looks good and sutures are intact. There was a small soft-tissue dehiscence at the buccal margin of the canine tooth.
- 7 Healing progressed well at 2 months post-operatively and the dehiscence defect seen at 1 week appears to be healing. Soft-tissue thickness is also evident at this stage.
- 8 At 6 months, 100% root coverage has been achieved. Note the increase in keratinized gingiva at the canine tooth where there was previously delayed healing. The patient is happy with the esthetic and functional outcome.

SOFT-TISSUE VOLUME

Geistlich Fibro-Gide® works well in multiple recession defects

"Multiple recessions on adjacent teeth in the maxilla can be treated successfully with a volume-stable collagen matrix and coronally-advanced flap."

(see image to the left)

▶ The Outcome

The healing at 6 months is very promising. 100% root coverage has been obtained and the patients' chief complaints of esthetics and sensitivity have been addressed. This case demonstrates that the short-term healing following root coverage surgery to treat multiple adjacent teeth using a volume-stable collagen matrix is comparable to that seen with autologous connective tissue grafts.



Briefly Speaking

▶ Keys to Success

1. Optimal case selection - patient factors, defect factors, and operator factors.
2. Root planing of exposed root surfaces to reduce prominences.
3. Careful flap design and split-thickness elevation.
4. Proper handling and placement of Geistlich Fibro-Gide®.
5. Tension-free coronal advancement of buccal flap to completely cover the biomaterial and root surfaces.
6. Meticulous suturing technique.

▶ My Instruments

1. 7/8 Younger-Good curette
2. 15c blade on round scalpel handle
3. P24G periosteal elevator
4. Geistlich Fibro-Gide® trimmed to 10 x 15 x 6mm
5. Micro-curved smooth Castroviejo Needle Holder
6. 5-0 Monocryl® suture, P-3 needle, 18" violet monofilament

"Healthy soft-tissue has been achieved in this case, but most importantly Geistlich Fibro-Gide® has significantly decreased patient morbidity."

▶ My Biomaterials

Geistlich Fibro-Gide® is a volume-stable collagen matrix specifically designed for soft-tissue regeneration. As an alternative to connective tissue grafts, it is ideally suited for augmentation around natural teeth and implants.



Geistlich Fibro-Gide® provides soft-tissue volume and long-term stability

Geistlich Fibro-Gide®

Your solution for soft-tissue regeneration needs



"Case selection is an important factor for obtaining optimal success in a patient like this – healthy, non-smoker, moderate recession with sufficient zone of keratinized gingiva, adequate vestibulum, and no interproximal bone loss in affected areas."

▶ Clinicians Note

While autologous connective tissue remains the gold standard for treating gingival recession, there are many situations where a patient may not want to use their own tissue. Materials like Geistlich Fibro-Gide® provide clinicians with a viable alternative to autologous connective tissue. In addition to excellent esthetic and functional results in appropriately selected cases, Geistlich Fibro-Gide® significantly reduces the morbidity associated with harvesting autologous tissues, enhancing the overall patient experience.



[Click here to view the webinar](#)

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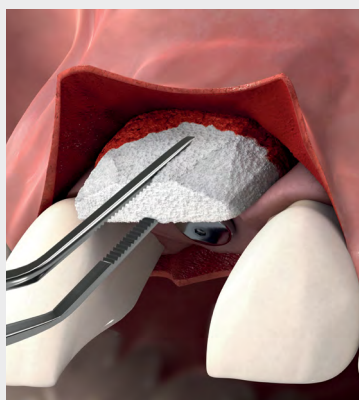
ABOUT BIOBRIEF

We know that exposure to new or refined treatment approaches brings innovation to practice. Geistlich Biomaterials is pleased to introduce a periodic opportunity to get up close and personal with creative clinicians from around the world. Focused on peer-to-peer exchange, BIOBRIEF features clinically relevant cases and techniques in specific therapeutic areas – highlighted with valuable insights about materials and instrumentation, as well as KEYS TO SUCCESS.

Geistlich Biomaterials – bringing you *regeneration on time*.

▶ The Therapeutic Area

Geistlich biomaterials can play a significant role in the treatment of Soft-Tissue Regeneration. Specifically designed for this indication, Geistlich Fibro-Gide® is the preferred alternative to connective tissue grafts. This volume-stable collagen matrix has been proven to show excellent integration into the surrounding soft-tissues while maintaining volume stability.



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

Indications

Geistlich Fibro-Gide® is indicated for the following uses: Soft-tissue augmentation; localized gingival augmentation to increase keratinized tissue around teeth and implants; Alveolar ridge reconstruction for prosthetic treatment; and recession defects for root coverage.

Warnings

As Geistlich Fibro-Gide® is a collagen product, allergic reactions may not be totally excluded. Possible complications which may occur with any surgery include swelling at the surgical site, flap sloughing, bleeding, dehiscence, hematoma, increased sensitivity and pain, redness and local inflammation.

For more information on contraindications, precautions, and directions for use, please refer to the Geistlich Fibro-Gide® Instructions for Use at: dental.geistlich-na.com/ifu