GUIDOR® Bioresorbable Matrix Barrier

Case:
Guided Bone Regeneration Case with GUIDOR® Matrix Barrier left exposed during healing
Indications

• To aid in bone regeneration and augmentation in oral surgery for:
  – Extraction socket site preservation
  – Immediate implant placement at time of extraction or delayed placement when additional bone regeneration is desired
  – Ridge augmentation
  – Sinus elevation
  – Stable barrier for the containment of bone grafting materials

Precautions

• GUIDOR Matrix Barrier has not been clinically tested in children, pregnant or nursing women, immuno-compromised patients (diabetes, chemotherapy, irradiation, infection with HIV) or in patients with extra large defects, for extensive bone augmentation or for use in treatment of failing implants.

Adverse Reactions

• Possible complications following any oral surgery include thermal sensitivity, flap sloughing, some loss of crestal bone height, abscess formation, infection, pain, and complications associated with the use of anesthesia. As with any type of surgical therapy, the patient may experience minor discomfort for a few days.

Source: Instructions for Use – GBR Configuration, GDR14009 03/2014
Case Background

• 63 year old male.
• Mandibular right first molar (tooth #30) deemed hopeless due to a combined endodontic-periodontal lesion.

Decision:
• Extract tooth and place an implant.
Pretreatment clinical view of mandibular right first molar (tooth #30) in a 63 year old male with an unremarkable medical history. The tooth is hopeless due to a combined endodontic-periodontal lesion. The tissue bleeds rather easily due to the infection.
Radiograph of tooth #30 suggests severe bone loss in the furcation that approaches the apices of the tooth.
Extraction of the tooth and minimal flap reflection has been performed. The buccal and lingual plates are thinner but intact and there is an absence of the furcal bone.
After thorough debridement of the socket, cortical freeze-dried bone allograft has been placed into the socket with slight overfill to reduce the amount of resorption.
A GUIDOR Matrix Barrier has been trimmed to fit over the grafted bone. The barrier membrane extends approximately 3 mm beyond the socket opening and is tucked under the flap to secure it.
Suturing of the site involves a combination of interrupted and horizontal mattress techniques using 6-0 expanded polytetrafluoroethylene sutures.

GUIDOR Matrix Barrier is left exposed since primary closure is not achieved.
At 4-weeks post operative, there is some tissue suggested to be growing on the barrier membrane. The patient has been using a botanical mouthrinse twice daily to aid in infection control.

During healing process, GUIDOR Matrix Barrier folds on itself.
Figure 8: Radiograph at Four-Months Post Extraction

Radiograph of the site exposed at 4 months following the extraction. There has been good containment and consolidation of the bone graft material.

Courtesy of Paul Rosen, DMD, MS, PC (Yardley, PA)
Figure 9: Occlusal View at Reentry for Implant Placement

Occlusal view following flap reflection at 4 months reveals good fill of the socket. More coronally, there is some loose connective tissue covering the regenerated bone.
Figure 10: Facial View at Reentry for Implant Placement

Facial view of the site demonstrates the maintenance of good bone height.

Courtesy of Paul Rosen, DMD, MS, PC (Yardley, PA)
This electrowetted surfaced implant is placed into favorable prosthetic position for restoration. A 4 mm high healing abutment of polyethylene ketone (PEEK) has been placed on the implant to allow for transgingival healing.
Suturing of the flaps has been performed using 4-0 gut with an interrupted technique.
Figure 13: Radiograph Immediately after Implant Placement

Radiograph exposed of the implant on the day of placement demonstrating good bone height surrounding the implant.
Figure 14: Radiograph after Crown Placement

Final crown has been completed 3 months following implant placement. The final restoration demonstrates a platform-switched restoration.

Courtesy of Paul Rosen, DMD, MS, PC (Yardley, PA)
Figure 15: Clinical View after Crown Placement

Clinical view of the screw-retained crown (three months after implant placement).

Courtesy of Paul Rosen, DMD, MS, PC (Yardley, PA)
GUIDOR® Bioresorbable Matrix Barrier

GUIDOR Matrix Barrier is available in various shapes and sizes, with and without ligatures.

Please visit www.GUIDOR.com for latest product information and Instructions for Use.
Sunstar has a wide variety of dental solutions to meet your office needs.