Case report
Surgical and prosthetic procedure

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PerioDerm utilized in unique Dermal Apron Technique™ as a soft tissue grafting alternative for esthetic outcomes

An 87 year-old male patient presented with a fracture of maxillary lateral incisor #7. His general dentist deemed the tooth to be unrestorable and referred him for extraction and implant therapy.

The use of autogenous, sub-epithelial connective tissue grafts has great benefits around immediately placed and provisionized implants. The morbidity associated with procurement of these grafts can be significant. An effective alternative to using CTG for increasing the thickness of peri-implant mucosa is PerioDerm, an acellular, dermal allograft.

1. Following careful extraction, the alveolus was debrided with ultrasonic and manual instrumentation. After conditioning with a doxycycline hyclate/sterile saline mix, the site was irrigated with saline.

2. An OsseoSpeed EV 3.6mm x 15.0mm implant was placed into the palatal aspect of the extraction socket. Primary stability was achieved with an insertion torque of 20 Ncm with ISQ readings of 72 both facially and palatally. The void between the implant and facial socket wall was obturated with a composite graft composed of FDBA (SYMBIOS mineralized cortical powder, DENTSPLY Implants) and DBBM (BioOss, Geistlich).

3. Using bis-acryl and flowable composite resin, a Temp Design EV abutment was utilized to fabricate a screw-retained, provisional crown. The submucosal contours of the temporary crown were under-contoured to avoid pressure on the proximal and facial soft tissues.

4. Using the Dermal Apron Technique™, dermal allograft (SYMBIOS PerioDerm, thin; DENTSPLY Implants) was trimmed and a disposable soft tissue punch was used to allow the material to be “draped” around the temporary crown’s cervical aspects. The restoration was carried to the site and hand tightened inside the implant.
5. Additional bone graft was placed into the socket and the PerioDerm was inserted into a soft tissue pouch created facially between the periosteum and crestal bone. A monofilament, resorbable suture was used to secure the dermal allograft and “cinch” the soft tissue margin around the provisional crown.

6. The temporary abutment screw was tightened to 15 Ncm after radiographic confirmation of complete seating.

7. The cingulum access channel was obturated with a cotton pellet and sealed with flowable composite resin. Care was taken to assure no contact with the mandibular anterior teeth existed in centric and excursive movements. The patient was instructed to avoid mastication on the right side for approximately six weeks.

8a. and 8b. At eight weeks, the provisional crown was removed.

9. The follow-up ISQ readings at the unchanged value of 72 were recorded. Excellent soft tissue health and physiologic contours were present.

10. The patient returned to his restorative dentist for fabrication of a screw-retained, porcelain bonded to metal crown.

Definitive restoration by Dr. S. Morris.