

Case 2 : Dehiscence defect treatment using xenograft bone and resorbable collagen membrane

Patient Characteristics

This case is a 41-year-old female who presented with buccal dehiscence defect in the mandibular molar. The patient was reported of no specific medical and dental history.

A buccal dehiscence was observed after the 1st implant placement from a radiograph and an exposure inspection (Fig.1 and 2). The defect size was measured as vertical 3mm and horizontal 3mm. For this reason, additional treatment in the site was required in order to secure the implant and to prevent the postoperative infection.

Treatment

Xenograft bones were applied around the implant fixture in order to cover and support completely (Fig.3). Then T-Gen is applied as it can completely cover the entire site (Fig.4). Primary closure was achieved over the membrane and graft using 4-0 monosyn sutures (Fig.5). At 1 week of post operation with suture removal, it was observed of a soft tissue healing without any inflammatory sign.

Results

At 1-month of post-operation, soft tissue in the mandibular was healed (Fig.6). And at 4-months of post-operation, in the exposure of the site, it was observed that the successful bony healing and complete recovery of the dehiscence defect were achieved (Fig.7). After a confirmation of the augmented site, healing abutments were applied to the fixtures. Through the post-operative radiograph, it was observed of increased height in the defect (Fig.8).

Summary

In an application of bone graft to a dehiscence defect, a simultaneous application of a collagen membrane (T-Gen) supports a bone recovery enough to sustain the fixture. Moreover, the excellent adaptation of a membrane during operation due to its flexibility and tear resistance brings a stabilization of the defect and leads to successful healing. Also it can provide a dramatic regeneration of gingival without any postoperative infection or adverse reaction.

As a supportive management for the implant surgery in dehiscence defect, the resorbable collagen membrane (T-Gen) provides a successful solution to the treatment.



Fig.1. Pre-operative radiograph

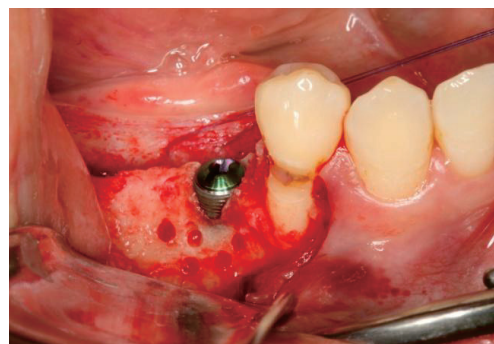


Fig.2. Buccal dehiscence defect after implant placement



Fig.3. The defects were filled with xenograft bone (Bio-Oss®).



Fig.4. Entire site was covered with T-Gen.



Fig.5. A tension-free flap closure is created with 4-0 monosyn sutures.



Fig.6. Uneventful healing is observed at 4 month post-operation.

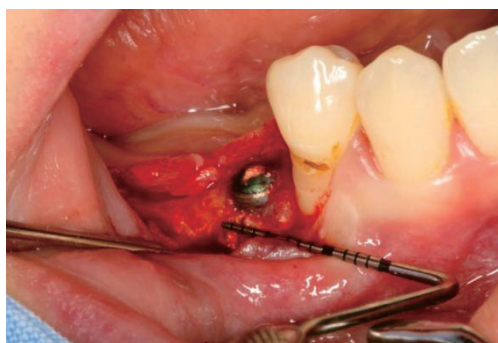


Fig.7. Re-opening after 4 months, good bony healing of defect.



Fig.8. Healing abutments were applied to the fixtures.