Replacement of an implant due to peri-implantitis in the maxillary molar region with delayed placement of a short implant and simultaneous grafting

Ronnie J. Goené, DMD[†] and Alwin C.L. van Daelen, DMD[†], The Netherlands

The patient presented with a failing implant due to peri-implantitis in the maxillary first molar position and a failing natural premolar tooth with periodontitis. Clinical and radiographic examination revealed the presence of very reduced bone height in the molar region, which would enable the placement of only a short implant. A treatment plan was developed where a short implant was placed in tooth position 3 [16] with simultaneous grafting in a two-stage approach. A longer implant was to be placed in the premolar site. After a 4-month healing period, two single definitive crowns were delivered to the patient.

Fig. 1



Radiograph showing the infected implant in the molar region and a failing premolar tooth.

Fig. 3



Placement of a T3[®] Short Implant (6 mm D \times 5 mm L) in position 3 [16] and a longer T3 Parallel Walled Implant (4 mm D \times 10 mm L) in tooth position 4 [15].

Fig. 5



Grafting of the remaining bone defect around the T3 Short Implant with Endobon[®] Xenograft Granules.



Preoperative radiograph 4 months after explantation of the failed implant. Note the limited remaining bone height in the molar region.



Occlusal view of the two implants in place with their corresponding cover screws for submerged healing.

Fig. 6



Radiograph after implant placement, grafting and sutures.

Clinical Case

Fig. 7



Re-opening 4 months after surgery.





Two definitive abutments in place 4.5 months after implant placement.



Radiograph at second-stage surgery 4 months post-op. Manual platform switching was done on the T3[®] Short Implant by placing a 5 mm diameter healing abutment on the 6 mm diameter implant.





Final cemented single-unit premolar and molar crowns.

Ronnie J. Goené, DMD[†]



Dr. Goené is an Associate Professor in the Department of Oral and Maxillofacial Surgery/Pathology of the Academic Center for Dentistry Amsterdam and VU University Medical Center. He lectures extensively on implant aesthetic dentistry. He maintains a private clinic limited to

implantology in Amsterdam, the Netherlands.

Alwin C.L. van Daelen, DMD^{\dagger}



Dr. van Daelen is a Clinical Assistant Professor at the Department of Oral and Maxillofacial Surgery/Oral Pathology, Academic Center for Dentistry Amsterdam and VU University Medical Center. He maintains a renowned private and referral practice in Amsterdam, The

Netherlands, treating restorative and aesthetic cases.

[†]The contributing clinicians have financial relationships with Zimmer Biomet Dental resulting from speaking engagements, consulting engagements, and other retained services.





Occlusal view of the definitive crowns.

Fig. 12



Radiograph of the definitive restorations taken at 4.5 months post-implant placement.