

## REPLACEMENT OF THE UPPER RIGHT CENTRAL INCISOR WITH A TAPERED EFFECT IMPLANT

MAKOTO SHIOTA AND KENJI MATSUURA

### Case Overview

A 56 year old healthy female patient, non-smoker, presented complaining about a loose upper right central incisor. The tooth had been endodontically treated and restored with a porcelainfused- to-metal (PFM) crown a dozen years ago. Tooth 11 (FDI) was highly mobile and notably displaced. Clinical and radiographic examination showed a root fracture. However, adequate bone volume for implantation was anticipated around the root, and the periodontal tissues of the adjacent teeth were healthy. In order to achieve an optimal esthetic result, delayed implant placement, minor GBR and immediate loading were planned. Immediately after extraction of tooth 11, the PFM crown was attached to both adjacent teeth to serve as a provisional pontic. 6 weeks after extraction, a Straumann Tapered Effect Implant was placed and a prefabricated provisional crown was installed. The SLA®

surface exposed labially was covered with autogenous bone particles. The final crown was inserted 5 months after implant installation.

*Reprinted with permission from:  
The Esthetics Casebook - 2nd Edition  
Published by Institut Straumann AG, Switzerland*

*Dr. Makoto Shiota, Ass. Prof., Ph.D, Tokyo, Japan  
Kenji MatSuura, Dental Technician, Tokyo, Japan*



**Figure 1:** Right central incisor with horizontal and vertical fracture.



**Figure 2:** Orthopantomogram showing the situation before extraction of tooth 11.



**Figure 3:** Situation after atraumatic extraction of tooth 11.



**Figure 4:** A provisional pontic (old PFM crown) was bonded to both neighbouring teeth immediately after extraction.



**Figure 5:** 6 weeks after extraction, the mucosal contours and adjacent periodontal tissues present well-maintained by the pontic, and the patient was scheduled for implant placement.

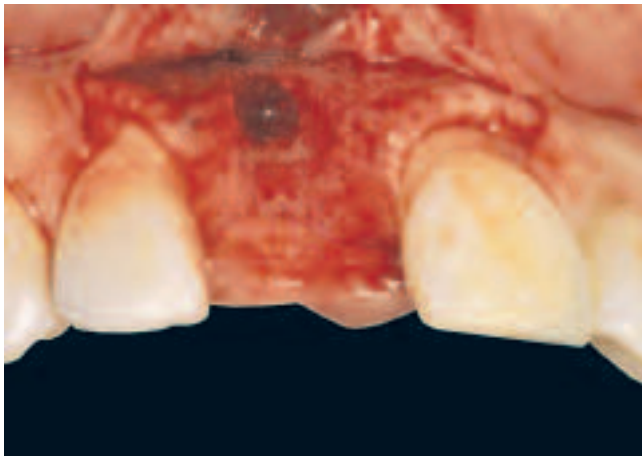


Figure 6: After elevation of a muco-periosteal flap, the remnants of the extraction socket are visible at the surgical site.

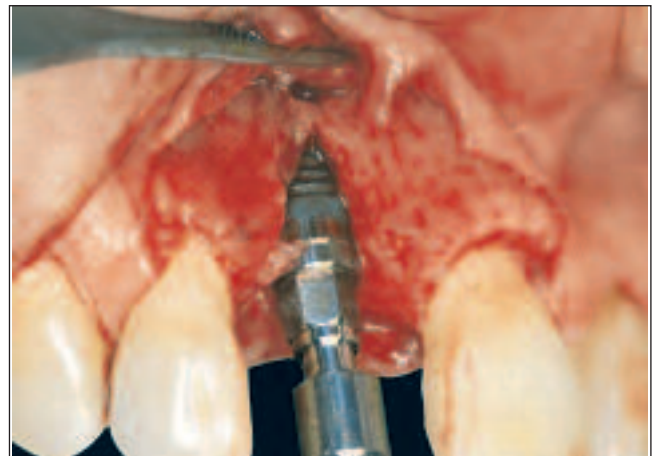


Figure 7: A Straumann Tapered Effect implant (TE, Ø 3.3 mm, Regular Neck, length 12.0 mm) was selected and placed. Note the labial dehiscence defect exposing part of the labial implant surface.

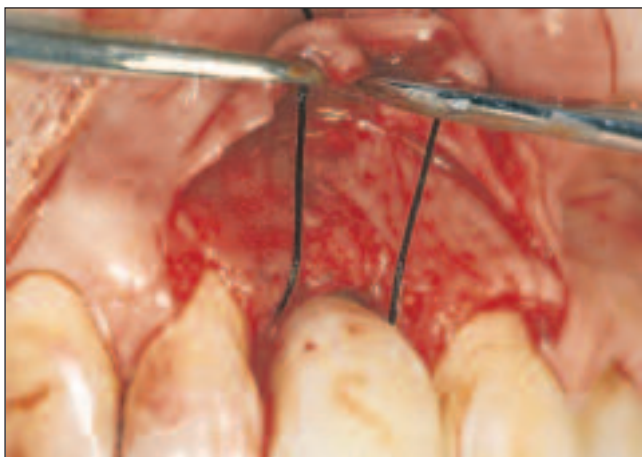


Figure 8: The implant was covered with autogenous bone chips and the provisional acrylic crown was screwed onto the implant. The provisional crown was taken out of occlusion.



Figure 9: Wound closure was performed utilizing 4.0 suture material.



Figure 10: 3 months after implant placement, soft tissue morphology was appropriate and the final impression was taken.



Figure 11: A RN synOcta® abutment was torqued into place at 35 Ncm.



Figure 12: The PFM crown, ready for installation.



Figure 13: The definitive crown screwed onto the implant abutment at 15 Ncm.



Figure 14: The implant borne restoration integrates into the line of natural teeth very nicely.



Figure 15: Lateral view at the implant site. The emergence profile matches that of the contralateral central incisor and integrates into the arch harmoniously.

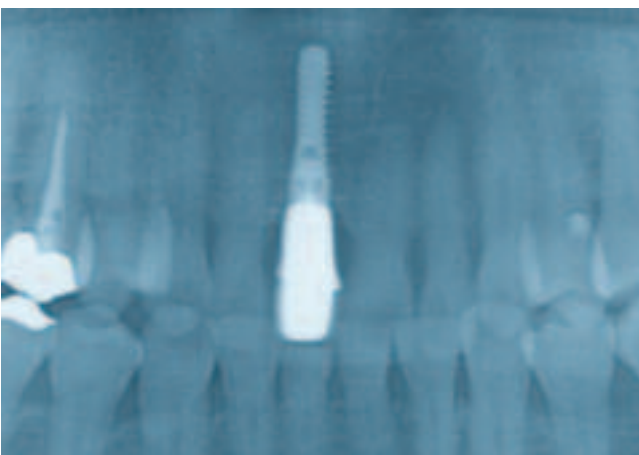


Figure 16:  
OPT follow-up at 18 months after implant loading.



Figure 17:  
The follow-up at 18 months after implant loading demonstrates a stable and esthetically pleasing situation.