Fabricating a provisional restoration over a healing cap using a 1.25-mm L-shaped Allen key

Ilan Gilboa, DMD, and Harold S. Cardash, BDS, LDS, RCS Eng
The Maurice and Gabriela Goldshleger School of Dental Medicine, University of Tel Aviv, Tel Aviv, Israel

After placing a transmucosal healing cap at second-stage surgery, a provisional restoration is desirable for esthetics, phonetics for development of a soft-tissue emergence profile around the implant, and to monitor the patient’s oral hygiene.1-3 Proussaefs4 described a procedure for fabricating a provisional prosthesis using a vacuum-formed template of a diagnostic waxing on prepared healing caps. A provisional crown constructed directly on the healing cap with the aid of an L-shaped type Allen key (Tooled-up, Enfield, Middlesex, UK) is an easy and economical method of fabricating an implant-supported provisional crown in a single appointment. This article describes the fabrication of a provisional crown over a healing cap using a modified domestic 1.25-mm L-shaped type Allen key for additional retention.

PROCEDURE

1. Remove 4 to 6 mm from the 1.25-mm L-shaped Allen key (Tooled-up, Enfield, Middlesex) using a separating disc (Dentorium Products Co, New York, NY) mounted on a low-speed straight handpiece.

2. Insert the cut portion of the key into the screw socket of the healing cap, leaving approximately 3 mm protruding from the screw socket (Fig. 1, A).

3. Contour a preformed polycarbonate crown (Ion; 3M ESPE, St Paul, Minn) to harmonize with the adjacent teeth, trim the crown to fit the titanium healing cap (Replace; Nobel Biocare, Goteborg, Sweden), fill the crown with autopolymerizing acrylic resin (Duralay; Reliance Dental Mfg & Co, Worth, Ill), and place over the healing cap (Fig. 1, B).

4. After polymerization of the acrylic resin, remove the restoration and fit a second identical healing cap on to the Allen key embedded in the crown, trim the excess acrylic resin, and create the desired emergence profile (Fig. 2, A).

5. Adjust the occlusion, polish the crown, remove the second healing cap, and fit the provisional crown (Fig. 2, B). Evaluate retention to determine if it is adequate without the use of provisional cement.

REFERENCES

Reprint requests to:
Dr Harold Cardash
Department of Oral Rehabilitation
The Maurice and Gabriela School of Dental Medicine
Tel Aviv University
Ramat Aviv, Tel Aviv
Israel
Fax: 972-3-6409250
E-mail: cardash@inter.net.il

Fig. 1. A, Shortened Allen key inserted into socket of healing cap. B, Crown filled with autopolymerizing acrylic resin and fitted over healing cap.

*Instructor, Department of Oral Rehabilitation.
*bClinical Associate Professor, Department of Oral Rehabilitation.
Fig. 2. A, Crown is removed (left); second healing cap is fitted to provisional crown (middle); excess acrylic resin is removed (right). B, Polished provisional crown.