Chairside conversion of tripoid provisional bridge into implant interim restoration using palate

Babi S.¹, Sava K.², Yfanti A.¹, Chalazoniti A.¹

1: Postgraduate Student, 2: Prosthodontist , Clinical Instructor

Department of Prosthodontics National and Kapodistrian University of Athens, Greece

Background and Aim

During implant treatment, patients have to go through different interim restorations until the final rehabilitation. In cases of full edentulous arch rehabilitation, many clinicians choose to keep hopeless teeth in order to support a provisional restoration during the osseointegration period. After implant exposure, the hopeless teeth have to be extracted and an implant-supported provisional restoration has to be fabricated.

The aim of this clinical report is to describe the chairside modification of an existing teeth and tissue supported provisional restoration into an implant-supported screw-retained interim restoration after teeth extraction, using the palate as a reference point for the new implant supported provisional restoration.

Methods and Materials

A 65 year old patient presented with periodontally compromised teeth in the maxilla that after clinical and radiographical examination were revealed to be hopeless. Therefore, a fixed screw-retained restoration on 6 implants was decided as a treatment plan.

Fig 1: Initial radiographic examination

Fig 2: Tripoid interim prosthesis.

Fig 3, 4: During osseointegration the patient had a tripoid (teeth and tissue supported restoration) interim bridge supported on canines and the maxillary tuberosities.

Fig 5, 6, 7: Immediately after implant exposure the canines had to be extracted because they presented extreme mobility and periodontal infection.

The loss of the abutment teeth meant that a new interim fixed implant restoration had to be delivered.

Results

Laboratory Workflow

Fig 8: An alginate impression of the diagnostic wax-up. Fig 9: Acrylic resin (PMMA) was pour in the coronal part of the teeth. Fig 10: Plaster cast with acrylic teeth. Fig 11: Acrylic resin was placed on the palatal surface of the cast, in connection with the teeth, creating an acrylic baseplate with acrylic teeth.

Clinical Procedure

Fig 12, 13: 4 Temporary abutments were placed. Stability during implant loading was ensured by the palatal extension.

Fig 14: Incorporation of the remaining two abutments after the removal of the acrylic baseplate.

Fig 15, 16: The interim screw-retained restoration after polishing.

Conclusions

A simple method of copying the preexisting provisional restoration and creating a fixed implant interim prosthesis has been described. It is a cost-effective method, allowing patients to evaluate the appearance, function and oral hygiene of the final restoration. This will also aid the clinician in visualizing the final result, selecting the correct abutment, and determining the possible need for pink esthetic, in order to improve the function and the appearance of the final restoration.

References

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