

## Modified anterior provisional prosthesis with buccal veneers on anterior teeth

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### Abstract

Although implants are replacing removable and fixed dental prostheses but their healing period is making patients to wait till implants are loaded with definitive prosthesis. It is nightmare for patients who are esthetically concerned to wait for months to get anterior tooth replaced. In such situations temporary prostheses are playing crucial role.

Patients having anterior tooth lost and diastema in other anterior teeth can be treated with implant supported prosthesis and veneers to close diastema respectively which is definitive treatment. Temporary prostheses in such case gives a visual picture to patient of esthetic smile designing till he/she get definitive prosthesis. This temporary prosthesis also serves function and esthetic purpose.

**Keywords:** Anterior Provisional restoration, Provisional for implant supported prosthesis, Diastema closure with provisional restoration.

Nowadays, implant supported fixed and removable prostheses have occupied their place in prosthetic dentistry. Success rate of implant retained prostheses for complete and partial edentulism has been shown to be over 90 percent.<sup>1-3</sup> Furthermore, implants have offered a great service for people, who lost a single tooth due to trauma, caries, internal/external root resorption, or root fracture [9-12]. Social involvement of patient may be affected due to loss of anterior tooth. Hence, expectation of patient is always to load the implant with tooth similar to natural tooth as early as possible. And, clinician expect to deliver implant supported prosthesis having good aesthetic, function and in harmony with surrounding soft and hard tissues.

For conventional loading implant is left unloaded for 3-6 months to allow osseointegration.<sup>4</sup> During this healing period clinician can choose posterior implant to be not loaded. But, in highly esthetic zone like anterior implant, patient may have to wear removable provisional prosthesis. For esthetic reasons if graft has been placed the removable provisional prosthesis may exert undue pressure on graft hampering its healing. Therefore, provisional prosthesis which is tooth supported or having no soft tissue contact may be preferred over removable prosthesis to maintain soft tissue healing and osseointegration.

But, in some cases like recent extraction of tooth, implant placement has to be delayed at least for 3 months. But anterior tooth loss is quite embarrassing to an esthetically concerned patient.

So here provisional prosthesis prior to implant placement was modified for esthetic purpose.

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### I. Case Report

Uma, 45 old female patient came to department of prosthodontics with her upper right central incisor extracted 2 weeks before. On clinical and radiological examinations, it was found that socket was healed but bone density was poor. CBCT was done to conclude whether implant can be done or not. Bone dimensions were sufficient to plan implant placement in future after complete healing of bone in same region. But, due to anterior tooth patient was willing for immediate placement of prosthesis in that region.



Preoperative photograph

So, removable partial denture was fabricated but patient was not happy with it because she demanded for some fixed solution. Also she had diastema with upper laterals and canines for which she consulted orthodontist but she refused orthodontic treatment. So treatment was planned to fabricate resin bonded provisional prosthesis with upper four incisors.

## **II. Procedure**

Impression of upper and lower arches was made with alginate(Tropicalgin, Zhermack). Impressions poured with dental stone(Kalstone, Kalabhai). Wax pattern fabricated on cast with mock up wax (MAARK)including buccal surfaces of left central incisor and both lateral incisors and pontic of right central incisor. Wings prepared on adjacent teeth obscure the diastema present with same teeth. All high points were reduced on wax pattern and putty index was made with condensation silicone(Zetaplus, Zhermack). Then wax pattern was removed from cast.

Two equal lengths of self cure resin (Protemp™ Plus, 3M) dispensed and mixed on mixing pad. Mixed resin material was loaded in index and placed on the cast and light cured. Once cured it was removed from cast and excess material was trimmed. The provisional prosthesis was finished and polished.



Finished provisional prosthesis with buccal veneers on adjacent teeth

Fit of provisional was checked and high points were removed. For cementation three points on each tooth were. Cement was loaded at three points in provisional prosthesis with dual cure resin cement(3M™ RelyX™ U200). Any excess cement was removed and it was cured. Again high points were checked and reduced.



## **III. Discussion**

Anterior tooth loss is a nightmare to a patient when esthetically concerned. Implant prostheses provide better function and esthetics but time required for implant osseointegration and fabrication of definitive prosthesis is long enough to refuse the treatment by patient. Also in cases of recent extractions the delayed

implant placement also increases time period of implant supported fixed prosthesis treatment. Hence in such cases provisional fixed prosthesis can be better option till implant placement and definitive prosthesis is done.

Normally, fixed provisional prosthesis is fabricated with acrylic pontic having wings on adjacent teeth lingually for esthetic purpose. In our case patient had diastema with teeth adjacent to missing tooth which would have exposed wings and cement through diastema. So this provisional prosthesis was excluded from treatment plan.

Since patient was using removable prosthesis and was not happy with it, it was also excluded from treatment plan.

Delayed implant placement was planned and patient was having diastema, so buccal veneers on adjacent teeth were planned attached to pontic which is esthetically superior and well accepted by patient. This provisional prosthesis provided esthetically and functionally sound prosthesis and also patient could visualize the definitive prosthesis having implant supported crown with upper right central incisor and veneers on adjacent central incisor and both lateral incisors.

#### **IV. Conclusion**

Fixed provisional restoration is always well accepted by patient than removable provisional prosthesis which is esthetically better. In this technique along with replacing missing tooth, diastema was obscured by buccal veneers on adjacent teeth. This is a demonstration for patient of esthetic rehabilitation of smile before proceeding to definitive treatment. So this provisional prosthesis act as a guide to both dentist and patient before definitive treatment is planned and executed.

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