



## A SIMPLE, QUICK AND INEXPENSIVE INDIRECT TECHNIQUE FOR FABRICATING CHAIR-SIDE PROVISIONAL RESTORATION.

### Prosthodontics

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### ABSTRACT

Provisional restoration plays an integral role in fixed prosthodontics as they serve as template for final restoration. Provisional restoration becomes mandatory when the prepared teeth lie in esthetic zone as it would affect the social life of an individual. There are different techniques for its fabrication. Fabrication of indirect provisional restoration is expensive and requires more time for its fabrication. This article demonstrates a straightforward and inexpensive chair-side technique of indirect provisional restoration.

### KEYWORDS

Provisional restoration, indirect technique, composite resin

#### Introduction:

Provisional restorations in fixed partial denture are preview of final restoration which not only protects the pulp but it even enhances the health of abutment and periodontium. Provisional restorations can be fabricated by direct, indirect and direct-indirect technique. Direct technique of fabrication of provisional restoration is not routinely followed due to poor marginal fit and potential trauma to the tissue. It also needs a preformed wax up and putty index. Therefore indirect technique of fabrication of provisional restoration is more commonly used by clinician. However indirect technique of fabrication needs laboratory support and time for its fabrication. This clinical report demonstrates a simple and inexpensive technique to fabricate provisional restoration by indirect method.

#### Dental Technique:

A 29 years old male patient presented with carious maxillary left and right central incisors. (Figure 1) Both the teeth were endodontically treated 2 months back and were asymptomatic. Case history and clinical examination was done for the patient and all ceramic crowns were planned for the patient.

Patient was more concerned about esthetic and needed immediate provisional restoration. The following steps demonstrate the technique for chair-side fabrication of indirect provisional restoration.



**Figure 1: Left and right maxillary incisors before treatment**

- 1) Shade selection was done using vita shade guide.
- 2) Tooth preparation was done with left and right central incisors with standard protocol (Figure 2)



**Figure 2: Tooth preparation with both maxillary incisors**

- 3) Maxillary arch impression was made with irreversible hydrocolloid impression material (Figure 3)



**Figure 3: Impression made with irreversible hydrocolloid impression material**

- 4) Immediately the impression was poured with autopolymerising resin. The impression surface of teeth was poured with tooth coloured resin. whereas the rest of the impression was poured in pattern resin.
- 5) Cast is retrieved once the autopolymerising resin is cured completely. All excess is removed and the resin cast is polished. (Figure 4)



**Figure 4: Interim cast for fabrication of provisional restoration**

- 6) Petroleum jelly was applied on prepared teeth surface of resin cast. Selected shade of composite was used and layer by layer composite crown build up was done (Figure 5)



**Figure 5: Fabrication of provisional restoration with composite resin**

- 7) Composite crowns were tried in the patient mouth to check the fit, esthetic and comfort of patient. Occlusal correction was done using bausch articulating paper.
- 8) Finishing and polishing of provisional composite crowns were done using composite polishing kit (Figure 6) and final cementation was done using spot etch technique. (Figure 7)



**Figure 6: Provisional restoration on autopolymerising cast**



**Figure 7: Final provisional restoration intra orally**

**Discussion:**

Provisional restoration plays a critical role in fixed partial denture. Various materials are used for fabricating provisional restoration. Composite resin is recently choice of material for provisional restoration because of its esthetic value, less shrinkage and less release of heat.<sup>5, 6</sup> Therefore composite resin was used in this technique for fabricating provisional restoration. In this technique cast was made from autopolymerizing resin because it is easily available, can be retrieved within few minutes and is much more inexpensive.<sup>7</sup> Indirect method for fabrication is more commonly used for fabricating provisional restoration due to better marginal fit and less trauma to the tissue.<sup>2, 8</sup> This indirect technique of fabricating provisional restoration is unique, quick and inexpensive. This will help the clinician to provide aesthetically sound provisional restoration to the patient.

**Conclusion:**

This elementary technique is economical method for fabrication of indirect provisional restoration. With this technique, clinician can now fabricate chair side provisional restoration immediately. This will succor the clinician to provide the patient functionally stable and esthetically sound provisional restoration which can be used for long period.

**References:**

1. Singla M, Padmaja K, Arora J, Shah A. Provisional Restorations in Fixed Prosthodontics: A Review. *Int J Dent Med Res* 2014; 1(4):148-151.
2. Patras M, Naka O, Doukoudakis S, Pissiotis A. Management of Provisional Restorations' Deficiencies: A Literature Review. *Journal of Esthetic and Restorative Dentistry* 2011:1-13.
3. Christensen GJ. Provisional restorations for fixed prosthodontics. *J Am Dent Assoc* 1996; 127:249-52.
4. Burke FJ, Murray MC, Shortall AC. Trends in indirect dentistry: provisional restorations, more than just a temporary. *Dent Update* 2005; 32(8):443-52
5. Prasad K, Shetty M, Alva H, Prasad A. Provisional restorations in prosthodontics rehabilitations - concepts, materials and techniques. *NUJHS* 2012; 2: 72-77
6. Vahidi F. The provisional restoration. *Dent Clin North Am* 1987;31:363-81
7. Powers JM, Sakaguchi RL. *Craig's restorative dental materials*. 12th ed. St. Louis: Mosby; 2006. p. 52-88.
8. Regish K, Sharma, D, Prithviraj D. Techniques of Fabrication of Provisional Restoration: An Overview. *Int J Dent*. 2011; 2011: 134659.