



An Innovative 2 Step Final Impression Technique For Fixed Prosthesis

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ABSTRACT

This article describes simple, cost effective, an innovative 2 step final impression technique. Which can be used where significant amount of tooth preparation is required prior to making of final impression ex inlays, on lays and fixed partial denture.

KEYWORDS

Introduction-

The making of accurate impression is still a challenge in prosthodontics. Failure to provide accurate impression leads to a failed prosthesis. This article describes a simple, accurate, dimensionally stable, time saving, economical and four handed 2 step impression technique. This technique can be used in partially edentulous situations and in dentulous situations where significant amount of tooth reduction is done.

Procedure-

Preliminary mandibular impression of partially edentulous patient with missing teeth 35, 36 teeth was made with alginate (irreversible hydrocolloid material).

Preliminary impression was poured with type III dental stone (DPI, Mumbai, India) and primary cast was retrieved.

Making of special impression tray –

On mandibular primary cast 3 layer of wax sheet (Golden dental product, Hyderabad, India) was adapted which provided 2mm of relief wax. Tissue stops were prepared on incisal surface of 31, 41 and on the lingual surface of 36 and 46 tooth. Self-cure acrylic resin (M.P Sai Enterprises Pvt Ltd, India) was adapted on the wax sheet and custom impression tray was prepared.

Making of Final impression-

Perforations were prepared on custom impression tray and tray adhesive was applied on intaglio surface of custom impression tray for 15 minutes.

In first step of impression making putty (President, Coltene/Whaledent Private Ltd, Mumbai, India) was mixed homogeneously and was placed on mandibular custom impression tray

and mandibular impression was made. Impression was removed with single snap motion.

Later tooth preparation was done on 34 and 37 tooth, on occlusal surface 1.5mm of enamel was prepared and on axial surfaces 1mm was prepared for porcelain fuse to metal prosthesis.

In second step of impression making, gingival retraction was done and then light body impression material (Affinis, Coltene/Whaledent Private Ltd, Mumbai, India) was injected on the tooth surface, and on the impression part of the prepared tooth. Later impression along with custom impression tray was placed on the mandibular arch and final impression was prepared.

Advantages of Techniques-

This is an innovative technique can be used in laminates, in lays, on lays, fixed partial denture cases where tooth preparation is required in a large area. This technique is simple, convenient, economical, time saving and comfortable for the patient. Also it gives desirable results.

This technique requires a primary cast on which a well extended custom impression tray can be prepared. This helps in recording an accurate and properly extended final impression with uniform thickness of impression material.

Addition silicone impression material was selected for this technique, as it is dimensionally stable, temperature has no influence on dimensional stability¹, accurate to reproduce fine details, adequate flow, can be delayed^{2,3} and repeatedly poured ^{2,3} up to 1 week.

In this 2 step impression technique⁴, in first step core impression was prepared with the help of putty and later tooth preparation was done. This provides space for light bodied impression material and light body impression material didn't get displaced from the prepared area as there is adequate space for it, thus fine details can be recorded easily.

The prepared impression was well extended, dimensionally stable, having uniform thickness of impression material, accurate in term of recording fine details and was easy to make.

Conclusion- This technique can be used routinely for final making impression as it is simple needs to expensive equipment, accurate in term or reproducing details.



Fig -1- First step of final impression with putty



Fig -2- Second step of final impression with putty and light body

References-

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