CASE REPORT

Sectional Impression Technique to Make Preliminary Impression of Mobile Teeth

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ABSTRACT

Even before making the definitive impression for immediate dentures, prevention of unexpected tooth removal during the preliminary impression phase is a challenge when treating patients who present with extremely mobile teeth. This article describes simple and safe technique to make a sectional impression of mobile teeth using vinyl polysiloxanes.

Key Words: Irreversible hydrocolloids, mobile teeth, polysiloxane, sectional impression.

Introduction

Numerous techniques, of making an impression for an immediate denture, have been reported to prevent periodontal compromised teeth with increased mobility from being accidentally exfoliated during the impression procedure. Various techniques of making an impression for an immediate denture include using plaster or silicone for the anterior labial segment,1 covering the mobile teeth with copper bands,2 making a second impression using irreversible hydrocolloid for the teeth portion over an impression of the tissue made previously with an open tray.3 Technique of blocking out the undercuts using wax has been commonly used,4 but evenly placing the wax could be uncomfortable to the patient, or the anatomic structures around the teeth may not be impressed accurately due to excessive block out. Furthermore, if multiple teeth are retained with different long axis, separating the impression could dislodge some of the teeth for which the long axis is inconsistent with the path of removal. Plaster can be used for the anterior section, once set; the plaster is sectioned for removal and reassembled on the primary tray outside the mouth.5 Modeling plastic or wax placed on the border of a secondary tray may be used in the same way for the anterior sectional impression.6 The Campagna technique uses an open tray in the region of the remaining teeth with a small extension into the labial vestibule. Once the border molded and impressed, a stock tray with irreversible hydrocolloid is used to capture the remaining teeth. The two trays are removed as one piece unit. This article describes a technique in that the impression is made using a combination of irreversible hydrocolloid and vinyl polysiloxane (VPS) without any block out materials.

Methodology

Evaluate a metal stock tray intraorally. Remove the labial wall of the tray using a metal cutting disc, until the mobile teeth are completely exposed from the front. In this technique, irreversible hydrocolloid is mixed and loaded into the tray and placed intraorally ensuring that the material covers only the lingual aspects of the mobile teeth. Retract the lip, insert the vinyl polysiloxane using gun dispenser into the vestibule and labial aspect of exposed teeth and wait until the material polymerizes. Remove the VPS material in the labial direction and separate the irreversible hydrocolloid impression in the occlusal direction. Remove the total impression as a one piece unit unless severe

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undercuts are present. If the separation is necessary remove each segment individually and accurately reassemble the impression outside the mouth using sticky wax. Box and pour the impression in a conventional manner (Figures 1 and 2).

Discussion

The technique described has both advantages and disadvantages for making a sectional impression of mobile teeth. The advantages are as follows:
1. The impression can be made easily by one person instead of requiring assistance
2. The two part impression usually can be removed in one piece unit
3. The labial vestibule can be recorded in a relaxed physiological state
4. The procedure is not messy and is faster than other similar techniques
5. The VPS index accurately records the labial vestibular space
6. The VPS is compatible with hydrocolloid impression material used.

The disadvantages are:
1. Technique sensitive procedure for loading VPS material on to the tray
2. Cost factor for silicone impression material.

Conclusion

The technique for preliminary impression described here can be performed with different impression materials with variable results. The technique described here utilizes VPS material as it shows reasonable accuracy and ease of use. There is scope for further improvised techniques in making impressions for mobile teeth as loss of teeth during impression making may not be acceptable to patients with high esthetic considerations.

References