FLABBY RIDGE MANAGEMENT BY UNCONFINING FREELY FLOWING IMPRESSION MATERIAL

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ABSTRACT Completely edentulous patients often present with a severely resorbed mandibular residual alveolar ridge. Not all patients can be managed surgically; therefore, a prosthodontist must look for innovative techniques which fulfil the basic principles of managing such cases. There are times when upon the patient’s arrival, the practitioner finds that the tray designed by the laboratory technician does not fulfil his requirements. We present a technique of recording flabby ridge if and when the special tray designed does not fulfil the criteria for recording such a situation. The technique is based on the principle of non-confinement of impression material in the area of flabby tissue to record tissue with minimum displacement.

KEYWORDS complete denture, elastomers, custom tray, mucostatic

Introduction

The outcome of the mandibular complete denture in the long run irrespective of a well-formed ridge is ultimately resorption despite the good quality of the complete denture prosthesis. Mandibular residual alveolar ridge (RAR) has less volume and lacks high compact bone which makes it more vulnerable to resorption by the prosthesis.[1] Traditionally the impression making of such poor ridges has to be managed by taking into consideration the amount of flabby tissue present on them. Numerous impression techniques have been mentioned in the literature to manage flabby tissue of mandibular origin.[2,3] Most of these techniques though require different special tray designs that include the mandatory amount of relief to be given, the design of the spacer, the type of impression material to be used and more decisively the impression technique.[4] The basic principle on which most practices are based involves recording the flabby tissue at rest so that the displacement of tissue during impression making is avoided.

When the technician and clinical situation have not followed the special tray design demands that the impression making cannot be deferred to a later date. In such cases, the clinician must innovate without violating the basic principles of impression making in such cases irrespective of the tray design. This article describes one such simple clinical innovation of recording a flabby ridge in completely edentulous patients, but only in those circumstances where the special tray designed for the purpose does not fulfil the standard norms. The authors would like to advise that a planned impression is always better than an unplanned impression making incomplete dentures and all attempts must be made to do so.

Technique

Step 1: To begin with the clinician must have a clear picture of the nature, location, extent, character and amount of the flabby tissue present on the RAR. During the clinical examination, one should note down the amount of displacement that the flabby tissue possesses both vertically and horizontally (Fig 1). Outlining such areas with a tissue marking pencil is advisable. For accuracy, one should mark the areas before making a preliminary alginate impression. This allows the markings to be transferred to the impression from where the markings are transferred to the diagnostic cast on which the special tray is designed.

Step 2: The same clinical picture should be visualized while verifying the tray design on the diagnostic cast in case the special tray does not fulfil the requirements. A low fusing compound

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that is used to perform border moulding procedure should not extend to the tissue surface of the special tray and should be limited to the tray borders (Fig 1B).

**Step 3:** Verify the peripheral seal in the patient’s mouth. With a small round carbide or stainless steel bur, holes about 2 mm in diameter are placed along the crest of the RAR. The holes are placed in such a way that the impression material does not confine itself within the tray and all excess material should move in a direction opposite to the direction of placement of the tray. A ‘V’ shaped hole with a narrow outlet and a broad inlet is preferable (Fig 1B). Step 3: A free-flowing impression material is then mixed and an impression is recorded. When elastomeric impression material is used, the use of tray adhesive is mandatory since the elastomer has the tendency to come out of the tray even if it is mechanically retained (Fig 1C). While using an elastomeric impression material, a light body is preferable than a medium body to record flabby tissue.

**Step 4:** The impression is poured in high strength dental stone, and after forming the base of the cast, the flabby area is checked against the clinical picture of the patient (Fig 1D). Any change in the amount of vertical or horizontal movement of the flabby tissue should be obvious on the cast.

**Conclusion**

The technique described in this article is simple, inexpensive, does not violate any principle of impression making of flabby ridges. The technique should be used only in case of urgency since the impression in such cases should be planned and incorporated within the tray designs.

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