



A CONSERVATIVE PROSTHODONTIC APPROACH FOR THE MANAGEMENT OF FLABBY RIDGE

Prosthodontics

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ABSTRACT

Flabby ridge is a common clinical finding affecting the alveolar ridges of the mandibular or maxillary arches. Patients with flabby tissue require impression procedures which will record the entire denture bearing area in a functional form and the flabby tissue in undisplaced form. The presence of displaceable denture-bearing tissues often presents a difficulty when making complete dentures unless managed appropriately. This case report describes simple and practical approach of completely edentulous patients with localized hyperplastic ridge.

KEYWORDS

Flabby ridge, Hyperplastic tissue, window technique, complete denture

INTRODUCTION

The objective of complete denture prosthodontics is to restore function, comfort, and esthetics by replacement of missing dental and alveolar structures with a stable prosthesis¹. The Glossary of Prosthodontic Terms defines flabby ridge as excessive movable tissue². Flabby ridge can be defined as a mobile soft tissue located on the superficial aspect of the alveolar ridge^{1,3,4}. It can develop when hyperplastic tissue replaces the bone and is mainly present in maxillary anterior region in long term denture wearers^{5,6}. This is due to anterior maxilla occlude with the lower anterior teeth⁷. The prevalence reported for this also varies among investigators, but it has been observed in up to 24% of edentulous maxillae and 5% of edentulous mandible and in both jaws mainly in the anterior region⁸.

Masticatory forces displace this mobile tissue causing altered denture positioning and loss of peripheral seal. Forces apply during impression can result in distortion of this tissue^{4,6}. Unless managed properly by special techniques. Such 'flabby ridges' adversely affect support, retention and stability of complete dentures. Many impression techniques have been proposed for this difficulty⁹.

The flabby ridge management techniques⁵:

1. Surgical removal of fibrous tissue
2. Implant retained prosthesis -Fixed, Removable
3. Conventional prosthodontics without surgical intervention.

Different impression techniques are proposed for recording flabby ridges without any tissue displacement. These include muco-compressive, muco-static and selective pressure technique¹.

The conventional prosthodontic management of flabby ridges involves recording the flabby tissues in a minimally displaced form, while other tissues are in functional form. This article describe the management of Completely Edentulous patient with a Flabby tissue in the anterior region of maxillary arch.

Case Report

A 61 year old female patient referred to the Department of Prosthodontics, Crown and Bridge, K. M. Shah Dental College and Hospital, Piparia, Waghodia, Vadodara, Gujarat, for the replacement her missing teeth due to difficulty in chewing. The patient had no significant medical history. She had an old of denture since 4 years. Clinical examination revealed the presence of flabby tissue in the anterior maxillary ridge extending between the canine regions (figure 1). The patient was not willing to undergo any surgical intervention. So

to gain adequate support from the basal seat area, it was decided to record the flabby tissue in undisplaced form and the other areas in functional form.

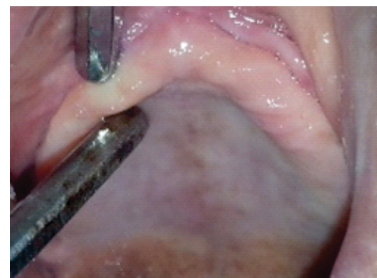


Figure 1. Flabby tissue in anterior Maxilla

Primary impression was taken with impression compound. A custom tray was fabricated with auto-polymerizing acrylic resin. The tray extension was checked and adjusted in patient mouth. Border molding was performed using green stick compound. The wash impression was taken with the ZOE impression paste.

Mark the flabby tissue with the indelible pencil and transfer it to the final impression. Trim the marked area from the tray and create a hole exposing the flabby tissue. The impression plaster was mixed with an anti-expansion solution and paint over the flabby tissue (Figure 2). The tray was removed after setting of impression plaster (Figure 3). At the time of pouring the master cast, the portion of the impression plaster was coated with a thin layer of separating media followed by the denture fabrication steps (Figure 4).



Figure 2. Impression Plaster was painted over the Flabby Tissue



Figure 3. Final Impression with Flabby tissue

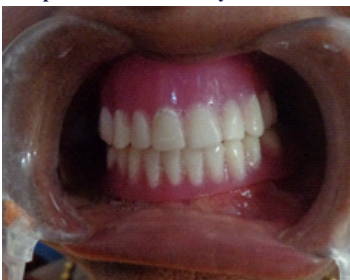


Figure 4. Denture in Patient's mouth

DISCUSSION

The performance of a complete denture is a reflection of its support and retention⁹. The skill of prosthodontist lies in applying these principles effectively in critical situations¹⁰. Management of a patient with a flabby ridge is a challenging and taking care of it in the impression surface detail is very important. Muco-compressive impression techniques result in an unretentive and unstable denture^{10,11}.

The major cause of the flabby tissue is the Combination syndrome. In which, maxillary anterior ridge is opposed by mandibular anterior teeth. Patients with flabby ridges often complain of "looseness" of the dentures. This is due to flabby tissues recoil when recorded in a displaced form^{1,12}.

Surgical removal of flabby tissue is one of the treatment option. But, in majority of the cases it reduces the sulcus depth and arises a need of vestibuloplasty⁴. Several impression techniques and methods have been described like controlled lateral pressure technique, palatal splinting using two part tray system, selective composition flaming, window technique, use of multiple escape holes and two part impressions¹³. However, there is no evidence to support any one particular technique that provide a stable and retentive denture on flabby ridges¹.

One should remember the concept of prosthodontic therapy that "Conservation of what remains, rather than meticulous replacement of what has been lost." So to preserve the remaining ridge, the selective pressure or minimally displacing impression technique was used^{10,11}.

The amount and position of flabby tissue should be considered. Where distortion is minimal, the use of perforations of the special tray may be sufficient. Where distortion is significant, a passive technique, either through palatal splinting or window or two stage could be considered⁴.

This article describe the Window technique for flabby ridge management described by Zafarulla Khan¹⁴. A window technique is used for impression of flabby ridge using a close fitting custom tray with a window. In this, studies have proposed to record the impression along with the peripheral seal followed by preparation of window and recording of displaceable tissues with a low viscosity impression material (impression plaster). Others have suggested that in order to allow for accurate peripheral seal and improved final impression, a custom tray with a window should be prepared prior to recording of final impression and displaceable tissue should be recorded in a static position through the window after final impression¹.

Using this technique, a muco-compressive impression is used for healthy tissues using zinc oxide eugenol with a custom tray. After setting of the impression material, flabby tissues are painted with a low viscosity mix of impression material (impression plaster) through the open window¹. The use of muco-static impression techniques for the majority of normal cases were advised following a review of

prosthodontic standards carried out in 1989⁶.

CONCLUSION

An accurate impression is mandatory for good prosthetic service. Fibrous ridges pose a prosthodontic challenge for the achievement of stable and retentive dental prostheses. Emphasis has moved away from surgical removal of the fibrous tissue. This paper has described an impression technique for the management of a flabby tissues. In this simple technique wash impression of highly displaceable maxillary anterior ridge was done with Impression Plaster. This technique can be also used with other materials such as light body PVS impression material. The choice of impression materials and design of the custom tray used for making final impression to reduce the pressure on the displaceable tissue is very important. The materials used are readily available and used in general dental practice. The time required for the specialized impression technique is not excessive. With modified impression techniques these ridges can be managed effectively by conventional prosthodontics without any additional clinical visits like the patients with normal edentulous ridges.

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