

Flabby Maxillary Residual Ridges: Prosthodontists' enigma

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Abstract

Flabby ridge is a common clinical finding which affects the alveolar ridges of the mandibular or maxillary arches. The most affected area in edentulous patient is usually anterior region of maxilla. Compromised stability, support, and retention of denture are usually seen in case of flabby ridge unless adequate measures for its management are employed. Surgical removal and augmentation, special impression techniques, balanced distribution of occlusal loads and implant therapy are some management option in flabby tissue. Special impressions are usually performed such as window technique for static impression of flabby area, which present multiple challenges. The purpose of this technique report is to present a modified technique for the impression of anterior maxillary flabby tissues for improved and controlled application of polyvinyl siloxane impression material that is routinely available in dental practice.

Keywords: Flabby tissue, Retention, Impression

Introduction

A Fibrous or flabby ridge is a superficial region of cellular gentle tissue affecting the maxillary or mandibular alveolar ridges. It generally takes place in enamel oppose an edentulous ridge. It can also rise up because of unplanned or out of control dental extractions. Displaceable, hyperplastic, or flabby tissues are commonly seen in the anterior region of maxilla in case of combination syndrome.[1] Recording the entire functional denture bearing area ensures maximum support, retention and stability for the denture during use. However, difficulties arise when the quality of the denture bearing areas are not suitable for this purpose. Flabby ridge gives rise to complaints of pain or looseness relating to a complete denture that rests on them.[2] When hyperplastic tissue replaces the bone, a flabby ridge develops that is frequently visible in long-time period denture wearers and certainly associated with the degree of residual ridge resorption. The reported prevalence for this condition also varies among investigators, but it has been observed in up to 24% of edentulous maxilla, and in 5% of edentulous mandible, and in both jaws most frequently in the anterior region.[3,4] Kelly, in 1972, suggested the term 'combination syndrome' to describe the changes in patients wearing a maxillary complete denture opposed by mandibular anterior teeth and a distal extension removable partial denture.[1] Magnusson et al. described a method where in affect substances are utilized in a custom tray the usage of zinc oxide and eugenol over the

ordinary tissues and affect plaster over the flabby area.[5] Crawford et al. described a two-tray impression technique where two trays are fabricated and impression is recorded with two different materials and is then oriented intraorally.[6] Osborne described the "window" impression technique with a custom tray made with a window over the flabby tissues. A mucocompressive impression is first made of the normal tissues with zinc oxide eugenol with a custom tray made with a window over the flabby tissues. A mucocompressive impact is first product of the ordinary tissues with zinc oxide eugenol the usage of a custom tray. Once set, a low viscosity blend of impact plaster is then painted onto the flabby tissues through the window and after completion the entire impression is removed. Watt and McGregor, recently revisited by Watson[7], described a technique where impression compound is applied to a modified custom tray. The thermoplastic residences of this material are then manipulated to concurrently compress the "normal tissues," at the same time as heading off displacement of the "flabby tissues" using the same material and impression tray.[8,9] The purpose of this paper is to describe impression technique used by the authors using readily available impression materials for recording the edentulous flabby tissue along with the normal tissues around it..

Case Report

A 45 year female patient reported to the department of Prosthodontics, Rama Dental College, Hospital

Kanpur with a chief complaint of replacement of missing teeth in upper and lower arches. The patient was a denture wearer for the last 3 years and described the existing dentures as “loose.” On examination the patient was completely edentulous maxillary and mandibular arches. The anterior canine-canine region in maxilla was flabby (fig 1). A treatment plan was formulated to fabricate a complete denture with the modification in the impression technique to achieve minimum displacement of denture during function and maximum retention and stability.

The alternatives treatment of implant supported prosthesis and surgical excision of the flabby tissue have been counseled to the patient. The patient was not willing to go through surgical methods so it changed into determined that upper and lower entire dentures might be fabricated using different method and technique.

Procedure

Preliminary impression was made in stock tray with irreversible hydrocolloid impression material to ensure minimal distortion of flabby tissue and the impression was poured in dental plaster. The displaceable regions have been diagnosed at the cast. On the maxillary cast, an “I” shaped spacer was implemented alongside the mid palatine raphe with the use of modelling wax with extra relief given within side the flabby region from canine-canine region (fig 2). A maxillary custom tray was fabricated the use of clean autopolymerising acrylic resin (RR self-remedy acrylic resin, Dentsply, India) protecting the tissues besides the region that turned into flabby. Over the “open” region of the tray another “supporting tray” of clear acrylic turned into made as a consequence protecting the flabby ridge. The handle was placed within the palatal part of the maxillary tray to make sure visualization of the underlying tissues via the clean acrylic tray (fig 3). The maxillary borders have been recorded with the aid of using selective pressure affect approach the use of green stick compound (fig 4). The spacer where relief was provided was now removed and multiple holes were drilled in the tray (fig 5). Placement of multiple relief holes was done to ensure prevention of pressure build- up in the flabby area (fig 6). Tray adhesive was applied and with addition silicone was made (fig 7). Subsequently, conventional treatment procedures were followed to deliver complete denture prosthesis (fig 8).

Discussion

Dentures which are constructed on flabby ridges without any special care for that region, it may cause

discomfort to the patient and failure of the prosthesis. Surgical excision of flabby tissue is one of the treatment options. But, however, in majority of the cases it reduces the sulcus depth and arises a need of vestibuloplasty. [5] Ridge augmentation is an invasive treatment option, as it has the risk of rejection of graft material along with the need for additional surgery for graft harvesting. The surgical intervention in the form of fibrous tissue removal or placement of implant retained prosthesis causes their own disadvantages of medical condition of elderly patients, shallow ridge, treatment time, cost, etc.[9,10] A conventional prosthodontic solution may avoid problems associated with surgery. Prosthodontic management of such conditions is a feasible and non-invasive option. Use of polyvinyl siloxane as a impression has its advantages as it avoids placing conventional stoppers in areas which are flabby. [11]

Conclusion

There are certain compromised conditions, like flabby ridge or resorbed ridge, where a good impression is mandatory for a good prosthetic outcome. The skill and knowledge of a prosthodontist is relentlessly tested in such cases. In this article a modified impression technique was described which compresses the non-flabby tissues to obtain optimal support and at the same time records flabby tissue in undisplaced form.

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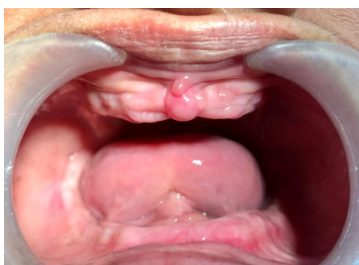


Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

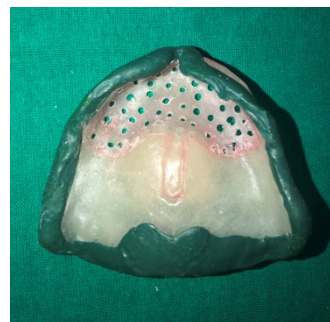


Figure 6



Figure 7



Figure 8