



PROSTHODONTIC REHABILITATION OF PATIENT WITH FLABBY RIDGE USING DIFFERENT IMPRESSION TECHNIQUES

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Abstract

A fibrous or flabby ridge is a superficial area of mobile soft tissue affecting the maxillary or mandibular alveolar ridges. It can develop when hyperplastic soft tissue replaces the alveolar bone and is a common finding particularly in the upper anterior region of long term denture wearers. Masticatory forces can displace this mobile denture-bearing tissue, leading to altered denture positioning and loss of peripheral seal. Forces exerted during the act of impression making can result in distortion of the mobile tissue. Unless managed appropriately by special impression techniques, such 'flabby ridges' adversely affect the support, retention and stability of complete dentures. This paper presents three case reports for prosthodontic rehabilitation of patient with flabby ridges with three different impression techniques.

Keywords – Flabby, Hobkirk, Zafarullah, stability, impression techniques

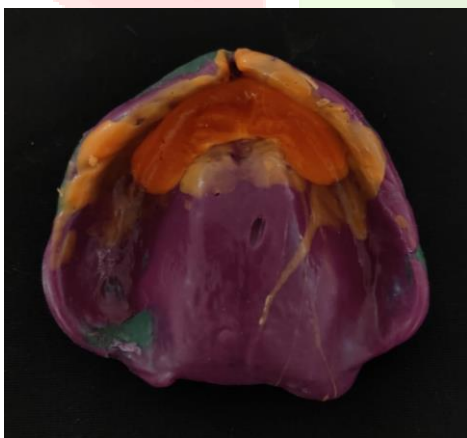
Introduction

The aim of complete denture prosthodontics is to restore function, esthetics and comfort by replacing the missing dental and alveolar structures with a stable prosthesis.¹ A fibrous or flabby ridge is a superficial area of mobile soft tissue affecting maxillary or mandibular alveolar ridges. It develops when hyperplastic soft tissue replaces the alveolar bone and is a common finding particularly in the upper anterior region of long term denture wearers.² Replacement of alveolar bone by a hyperplastic soft tissue can develop a flabby/mobile soft tissue in the ridges. These are easily displaceable tissues which can adversely affect the

support, retention and stability of Complete Dentures. These flabby ridges should be managed by special impression techniques to fabricate a stable denture base despite of underlying displaceable tissue.³ Histologically, flabby ridges are composed of hyperplastic mucosal tissue and loosely arranged fibrous connective tissue and dense collagenised connective tissue. In the soft tissue, a great amount of metaplastic cartilage and/or bone are observed. The flabby ridge can be determined by checking for the mobility of the tissue with the blunt end of a mouth mirror or a probe.⁴

CASE 1

A 58 year old female patient reported to the Department of Prosthodontics and Crown and Bridge, with chief complaint of loose denture. On examination ,flabby tissue in maxillary anterior region was found. Tissue blanching was also noticed on pressure application. Fabrication of new complete denture was planned for the patient with recording of flabby tissue in undisplaced condition using Horbkirk technique .The maxillary preliminary impression was made with irreversible hydrocolloid(Alginate-Prime chrome)in heat mouldable tray and the primary cast was poured. Special tray was fabricated using double spacer over flabby tissue area and in the region of mid-palatine raphae. After checking the proper tray extensions, border moulding was done in conventional manner using green stick impression(DPI Pinnacle Tracing sticks).Spacer wax was removed and final impression was made with medium body elastomeric impression material. The tray was then removed from the mouth and impression material was removed in the region of flabby tissue using a scalpel. Relief holes were made and tray was loaded in this region with light body elastomeric impression material to record flabby tissue.Beading and boxing was done and master cast was poured. The denture was fabricated and it had good retention, stability with proper recording of flabby tissue.



Hobkirk's technique

CASE 2

A 56 year old male patient reported to the Department of Prosthodontics and Crown and Bridge, with chief complaint of ill-fitting denture. On examination ,flabby tissue in maxillary anterior region was found. Tissue blanching was also noticed on pressure application.

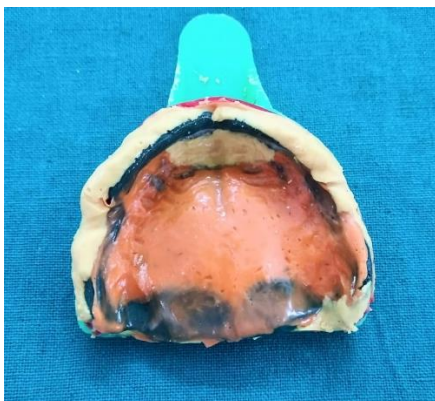
Zafarullah Khan technique for impression making was planned for this patient. The maxillary preliminary impression was made using Irreversible hydrocolloid(Prime Chroma)in heat mouldable tray and primary cast was poured. Spacer was adapted over the primary cast except in the region of flabby tissue. Special tray was fabricated providing a window in the region of flabby tissue. Border moulding was done using green stick compound. Spacer wax was removed and impression was made with zinc-oxide eugenol impression material. With the zinc-oxide eugenol impression material (DPI impression paste)in the mouth, flabby tissue was painted with impression plaster .Impression plaster was allowed to set and tray was removed from the mouth. Master cast was poured after applying soap solution as separator over impression plaster. The denture was fabricated in which flabby tissue was properly recorded and given adequate relief.



Zafarullah Khan Technique

CASE 3

A 60 year old male patient reported to the Department of Prosthodontics and Crown and Bridge, with chief complaint of ill-fitting denture. On examination, flabby tissue was found in maxillary anterior region. Window technique was used for this patient. Instead of impression plaster, impression of the flabby ridge was made with irreversible hydrocolloid.



Modified Zafarullah Khan Technique

Discussion

The profile of patients who present for complete dentures, or replacement complete dentures, is now more aged than it was 30 years ago. As a result of advances in dental techniques and dental treatment philosophies, more patients retain some, or all, of their natural teeth until later in life.⁵ Excessive forces by unstable occlusal condition can lead to the formation of flabby ridge in an edentulous arch which provides poor support for a denture.⁶ Conventional impression techniques used to record such flabby tissues often results in unretentive and unstable dentures. Creating holes/ windows or wax reliefs decreases the hydraulic pressure while impressing flabby areas, thus minimizing the distortion/ displacement of hypermobile tissues.

Utilizing these alternatives while making secondary impression can be useful in recording flabby tissues in their anatomic or undistorted form.

Elastomeric materials are more preferred over zinc oxide eugenol impression paste of impression plaster, as they are less brittle and less messy to use. However, there is no significant difference in retention and stability obtained from both, zinc oxide eugenol impression paste and polyvinyl siloxane material.⁷

Conclusion

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.⁸ A good impression is mandatory for good prosthetic service. However there are certain compromised conditions like flabby ridge, resorbed ridge where the skill and knowledge of dental practitioner is relentlessly tested. Implementation of some modification in current impression technique and newly introduced materials with improved physical and handling properties, flabby ridge can be treated effectively.⁹ The materials used must have high fidelity to the details, low viscosity and high adhesion to the tissues.¹⁰

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