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PROSTHODONTIC REHABILITATION OF A PATIENT WITH MAXILLARY FLABBY RIDGE – A CASE REPORT

Dental Science

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ABSTRACT

Edentulous ridges that are mobile or resilient with little evidence of underlying supportive bone, may give the appearance of being "flabby". Such a situation arises in some complete denture wearers where alveolar bone has been replaced by fibrous tissue. It is particularly evident in the maxillary anterior region of long term denture wearers. In particular, problems arises during the procedure of impression making, when forces cause the highly mobile denture bearing tissues to become distorted leading to loss of peripheral seal. Unless managed appropriately by special immpression techniques, such "flabby ridge" adversely affect the support, retention, and stability of complete dentures. This paper presents a case report of one of the impression making technique for edentulous patient with flabby alveolar ridge.

KEYWORDS

Complete denture, flabby ridge, impression, mucocompressive, mucostatic technique.

INTRODUCTION

Edentulous ridges that are mobile or resilient with little evidence of underlying supportive bone may give the appearances of being "flabby". It is one which becomes displaceable due to fibrous tissue deposition. It is developed due to replacement of alveolar bone by the fibrous tissue. It affects both maxillary and mandibular alveolar ridge but is particularly evident in the maxillary anterior region of long term denture wearers.

Studies have shown that the prevalence of flabby ridges vary in either arches, with edentulous maxillae prevalence being 24% and edentate mandibles 5%. Flabby ridge in long term denture wearers occurs due to trauma from denture bases or result of unplanned and uncontrolled dental extractions.

It is also commonly seen in the anterior part of the edentulous maxilla opposed by natural mandibular teeth in anterior region. This condition is called combination or Kelly,s syndrome.

Masticatory forces can displace this mobile denture-bearing tissue leading to loss of peripheral seal. In particular, problems arises during the procedure of impression making, when forces cause the highly mobile denture bearing tissues to become distorted leading to loss of peripheral seal. Such flabby ridge adversely affect the support, retention, and stability of complete dentures. Fibrous ridges pose a prosthodontics challenge for the achievement of stable and retentive dental prostheses.

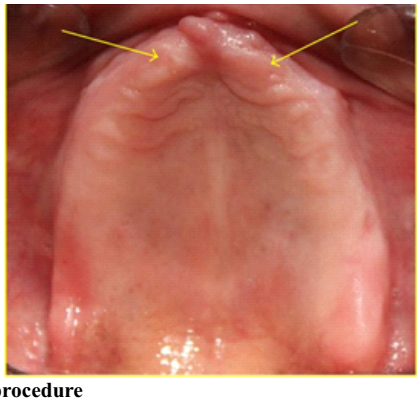
To overcome these problems the methods suggested are

1. Surgical removal of fibrous tissue prior to conventional prosthodontics.
2. Implant retained fixed or removable prosthodontics.
3. Conventional prosthodontics without surgical intervention.

Emphasis has moved away from surgical removable of fibrous tissue. Implant retained prostheses may not be most suitable treatment option for many patients in terms of patient economics and time taken for the completion of the procedure. When considering conventional prosthodontics, there are a variety of impression techniques that have been suggested for the impression of a flabby tissue ridge which will not only support the flabby tissue but at the same time it will not displace it. This article presents case report of one of the impression making technique for the management of denture bearing areas that contain flabby tissues.

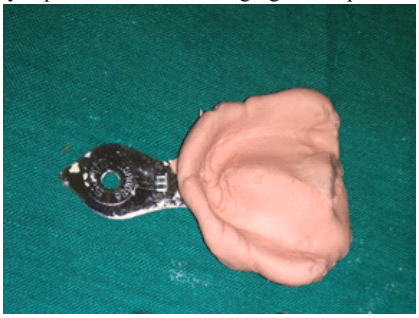
CASE REPORT

A male patient of 69 years age reported to the Department of Prosthodontics and Crown and Bridge, Buddha Institute of Dental Science and Hospital, Patna, with the chief complaint of loose dentures. History revealed that he was a complete denture wearer since last 10 years. On intraoral examination it was seen that the patient was completely edentulous with flabby tissue in the maxillary anterior region extending from canine to canine. The patient was economically weak so it was decided to fabricate a new complete denture using appropriate impression technique. Before starting the treatment the patient was advised to discontinue using his old denture for 3-4 days.



Clinical procedure

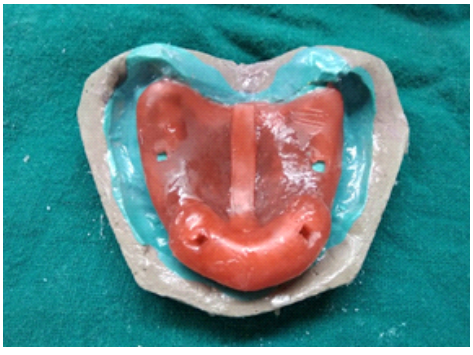
The primary impression was made using alginate impression material.



Impression was poured with dental stone and cast was obtained.

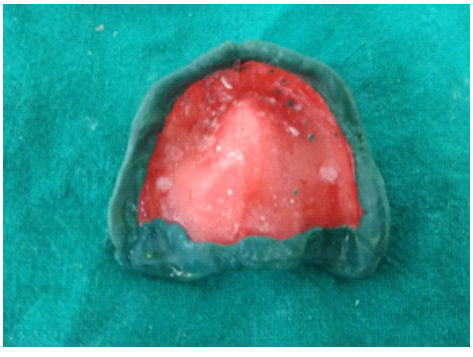
On the cast flabby area was marked.

Modeling wax used as a spacer was adapted on the maxillary cast. Over this three layer thickness of modeling wax was placed on the marked area and one layer thickness in the region of mid palatine raphe. On mandibular cast normally spacer was adapted.



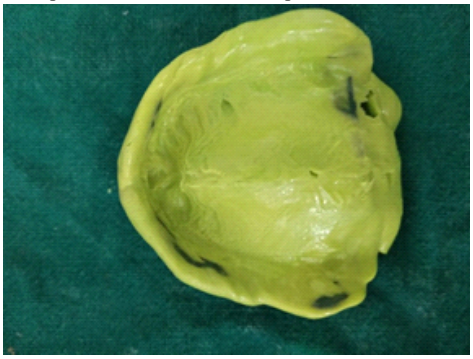
The custom tray was fabricated in a usual manner using auto polymerizing resin.

Custom tray was inserted into the patient's mouth and extension of the tray was properly checked. It should be 2mm short of the sulcus. Border moulding was done with green stick compound.



Spacer was removed and multiple relief holes were made to ensure prevention of pressure build up in the flabby area.

The custom tray was filled with light body impression material and was placed in the patient's mouth and wash impression was made.



Once the material sets, the custom tray was removed from the patient's mouth.

The final impression was poured with dental stone and cast was obtained.

Jaw relation and try-in was done as usual manner.

The denture was fabricated using compression moulding technique.

The denture was inserted into the patient's mouth and were found with good retention and stability.

DISCUSSION

The basic objectives of complete denture prosthodontics are the restoration of function, facial appearance and the maintenance of the patient's health. Impression making plays an important role in complete denture fabrication. Managing a patient with flabby maxillary ridge is a challenging problem for the dentist. An impression technique is required which will compress the non flabby tissues to obtain optimal support and at the same time, will not displace the flabby tissue.

Various impression technique have been described in literature to record flabby tissue. Liddlelow described a technique whereby two separate impression materials were used in a custom tray (using 'Plaster of Paris' over flabby tissues and zinc oxide eugenol over the normal tissues.) Osborne described a technique where two separate impression tray and materials were used to record flabby and normal tissues. Watson described the window technique where a custom tray is made with window over flabby tissue. A mucocompressive impression is first made of normal tissues using the custom tray and zinc oxide eugenol impression paste. A low viscosity mix of plaster of paris is then applied over flabby tissue through the window. Each technique has its own advantage and disadvantage. The technique described in this article is Lynch and Allen's technique that does not involve extra clinical steps in fabrication of complete denture. The use of wax minimize the displacement of flabby tissue thus increasing the stability of the denture. Choice of treatment modality is made by keeping in mind that the requirement of stability and retention of the prosthesis must be balanced along with the preservation of the health of oral tissues for every patient.

CONCLUSION

Flabby ridges pose a prosthodontics challenge for the achievement of

stable and retentive dental prosthesis. Emphasis should be laid on conventional management followed by modified prosthodontic procedures to achieve desired results. Standard mucocompressive impression technique in flabby tissues results in unstable and non-retentive denture. In mucostatic technique movement of denture base relative to support tissue may be a problem. The use of selective pressure or minimally displacive impression technique should help to overcome some of these limitation. Variety of impression technique are available. One should be aware of the methods and materials that can be used to overcome the challenges encountered in making a stable, retentive, comfortable and long lasting dental prostheses.

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