

PROSTHODONTIC REHABILITATION OF PATIENT WITH FLABBY RIDGES

Dr. Abroo Hussain, Dr. Ragheeba Ansari, Dr. Manish Kumar, Dr. Sabeeha Hussain, Dr. Aamir Khan Layal

***Corresponding Author: Abroo Hussain**

Article Received on 22/06/2021

Article Revised on 12/07/2021

Article Accepted on 02/08/2021

ABSTRACT

Abused, inflamed, atrophic, and flabby ridges always pose a great challenge to a prosthodontist in the fabrication of complete dentures. Unless managed appropriately, such 'flabby ridges' adversely affect the support, retention and stability of complete dentures. In particular, problems arise during the procedure of impression making, when forces cause the highly mobile denture bearing tissues to become distorted leading to loss of peripheral seal and perpetuate tissue inflammation. This paper presents a case report of one of the impression making technique for edentulous patients with flabby alveolar ridge.

KEYWORDS: Mucostatic Technique, Hyperplastic Tissue, Flabby Ridge, liquid-supported denture.

INTRODUCTION

Flabby ridge is a hypermobile and extremely resilient tissue formed due to the replacement of the bone by fibrous tissue due to the excessive load on the ridge and unstable occlusal conditions. The reported prevalence has varied but has been demonstrated in up to 24% of edentulous maxillae and 5% edentulous mandibles.^[1] As the flabby tissues are easily distorted while impression making steps, the dentures fabricated on such foundations are often compromised in its retention and stability. Several treatment modalities offered in such patients include surgical excision of flabby mass, implant-supported dentures, or conventional prosthesis without surgery.^[1,2] Impression making plays a critical role in complete denture fabrication. A particular problem is encountered if a flabby ridge is present within an otherwise "normal" denture-bearing area. An impression technique is required which will compress the nonflabby tissues to obtain optimal support and at the same time will not displace the flabby tissues.^[2] Several techniques such as the Hobkirk technique, Zafarullah Khan technique, Liddlelow technique, Osborne technique, and McGregor technique have been described in the literature for the careful recording of the flabby tissue.

Liquid-supported denture is a novel and innovative technique which allow continued adaptation of the denture base to the mucosa in the resting and functional state. This design acts as a continuous relined for the denture, improves the retention, and allows uniform distribution of masticatory load.^[3] This article presents a case report where a flabby ridge is managed nonsurgically with modified impression technique and a

liquid-supported maxillary denture for better patient acceptance and comfort.

CASE REPORT

A 60 year old male patient reported to the Department of Prosthodontics and Crown and Bridge with history of wearing maxillary complete denture opposing mandibular removable partial denture for 2 years. He got his mandibular anteriors extracted 6 months back. There was flabby tissue in the maxillary anterior region (Figure 1).



Figure 1: Flabby tissue in maxillary anterior region.

Zafarullah Khan technique,^[4] for impression making was planned for this patient. The maxillary preliminary impression was made using irreversible hydrocolloid in perforated edentulous tray and primary cast was poured (Figure 2). 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.



Figure 2: Primary cast.

Border molding 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 (DPI Impression Paste) in the mouth, flabby tissue was painted with light body impression material in cartridge was applied over the exposed flabby tissue using the light body dispensing

gun. The tray was held in position till the material sets and was reinforced with impression plaster for strength. Impression plaster was allowed to set and tray was removed from the mouth (Figure 3). Master cast was poured after applying soap solution as separator over impression plaster.



Figure 3: Flabby tissue recorded with light body impression material reinforced with plaster of paris.

The denture was fabricated in which flabby tissue was properly recorded and given adequate relief (Figure 4).



Figure 4: Finished denture.

DISCUSSION

The basic objectives of complete denture prosthodontics are the restoration of function, facial appearance and the maintenance of the patient's health. However, epidemiological studies of the edentulous population have shown that most patients have pathologic tissue changes under the dentures that require treatment. These changes have little relation to a patient's perception of denture success or personal oral health status.

The success of a new denture requires the support of healthy tissues. Any soft tissue or hard tissue defects should be treated before commencing the definitive treatment. A comprehensive clinical examination and accurate medical/dental history are essential to identify problems and take necessary corrective action. Recovery of abused tissue requires tissue rest, tissue conditioning and if not successful requires surgical intervention.^[5]

As stated by DeVan "Our objective should be the perpetual preservation of what remains rather than meticulous restoration of what is missing". Keeping this as our aim, for the present case we opted the mucostatic technique of impression making with due respect to the abused tissue.

Liddlelow described a technique whereby two separate impression materials are used in a custom tray (using 'Plaster of Paris' over the flabby tissues, and zinc oxide and eugenol over the 'normal' tissues). Similar studies were done by Watson, McCord JF (2000) 10 and Ahmad F (2000) 10 where they used the window technique. Our study has adopted the similar technique where a single tray was used to record the abused and non-abused areas together with heavy and light body material. In contrast to this, Osborne described a technique whereby two separate impression trays and materials were used separately to record the 'flabby' and normal 'tissues'.

The two stage technique is the closest of recording the fibrous ridge in its undisplaced position and would appear to have the highest number of advocates in the literature reviewed.^[5] Indeed, the use of mucostatic impression techniques for the majority of normal cases were advised following a review of prosthodontics standards carried out in 1989.^[6]

While there is much speculation in the dental literature regarding the most suitable impression technique for a complete denture, there is no evidence to indicate that one technique produces better long term results than the other.

REFERENCES

1. Lynch CD, Allen PF. Management of the flabby ridge: Using contemporary materials to solve an old problem. *Br Dent J*, 2006; 200; 258-61.
2. Hobkirk JA. Complete Denturesda Dental Practitioner Hand book. Bristol: Wright, 1986; 44-5.
3. Mehta S, Ziauddeen MM, Chandra P, Rohith B, Mehta A. Prosthodontic management of hypermobile ridge using modified window impression technique and liquid-supported denture. *Int J Oral Health Sci.*, 2020; 10: 55-9.
4. Keni NN, Aras MA, Chitre V. Management of flabby ridges using liquid supported denture: A case report. *J Adv Prosthodont*, 2011; 3: 43-6.
5. Dammani B, Shingote S, Athavale S, Kakade D. Liquid-supported denture: A gentle option. *J Indian Prosthodont Soc*, 2007; 7: 35-9.
6. Keni NN, Aras MA, Chitre V. Management of flabby ridges using liquid supported denture: A case report. *J Adv Prosthodont*, 2011; 3: 43-6.