

MANAGEMENT OF LAX TISSUES TO IMPROVE POSSESSION BY WINDOW TECHNIQUE.

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Abstract:

The treatment procedure for compromised edentulous ridges in a conventional manner is a very difficult task. To fulfil patient desire such as function and aesthetics the procedure need to be modified. This case report describes one of the impression techniques for completely edentulous patient with localized hyperplastic ridges.

Key words: flabby ridge, window impression technique, floppy tissue.

Introduction:

The compromised ridges can be atrophic ridge, flabby ridge, and knife edge ridge and abused ridges¹. Residual ridge resorption is a complex biophysical process, it is a common occurrence following extraction of teeth and the rate of ridge resorption is faster during the first year and at a slower rate as year passes. The impression techniques play a key role for the compromised ridges and a master impression should record the entire functional denture bearing area to ensure maximum support, retention and stability for the denture during use². For flabby ridges the alveolar mucosa over the ridges is with unusual thickness and mobility. It is thick in some area from 2-4mm .The mucosa has no bone support when the mucosa is more than 4mm in some area if the atrophy of alveolar mucosa is rapid. It can be associated with either of the arches but commonly seen in anterior part and

tubers of maxilla. If flabby ridges are present may give rise to complaints of pain or looseness when the denture rests on them. The superficial area of mobile soft tissue replaces the alveolar bone due to its resorption and the mobile soft tissue gets displaced due to masticatory force leading to loss of peripheral seal³. This type of ridges must be properly managed with impression techniques otherwise it adversely affects retention, stability and support of complete denture.

The conventional impression techniques compress the flabby ridge and later tend to recoil and dislodge the overlying denture. There are impression principles such as mucostatic impression technique which achieves support from the other firm areas of denture bearing area for maximum retention⁴. Muco-compressive technique which compress the loose floppy tissue to obtain functional support from it and to replicate the contour of the ridges during

compression of occlusal forces. The prevalence is about 24% of edentulous maxilla and 5% of edentulous mandible in both jaws most frequently in anterior region⁵.

Case report:

An 82 year old patient reported requesting for the new set of dentures (Figure-1). The patient had been completely edentulous for 20 years and had two sets of denture previously. The patient complained that the present denture were ill-fitting and had difficulty in eating and also complains of discomfort for which he wishes to have a new set of denture. Patient does not give any relevant medical history. On examination it was noticed there was a bony protuberance and flabby tissue in the anterior part of maxilla(Figure-2). Treatment modalities like surgical procedures followed by fixed orremovable prosthesis, conventional procedure without surgical excision were the options explained to the patient. Patient however was not interested in surgical procedures so; window impression technique was planned for the patient.

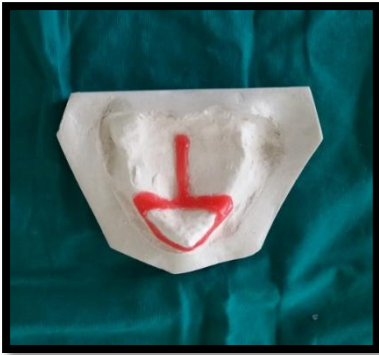


Pre-treatment (Figure-1)



Maxillary arch(Figure-2)

A preliminary impression was made using irreversible hydrocolloid and cast was poured. A spacer was placed, special tray was constructed using auto -polymerizing resin and the area where flabby tissue is present was left uncovered (Figure-3 & 4). Border moulding was carried on the maxillary arch using low fusing compound and the impression was made using ZOE, then the exposed window area is covered using light body polyvinyl siloxane material(Figure-5). The material is placed in a passive manner to prevent distortion of the soft tissues. The impression was removed in a single jerk and the master cast was poured with dental stone once the impression is carefully evaluated. The record base was fabricated and occlusal rims were made (Figure-6). Jaw relation was recorded(figure-7) followed by Try-in (figure-8) and processing of denture was carried.



Primary cast with Spacer (figure 3)



Secondary impression(Figure-5)



Custom tray(Figure-4)



Jaw Relation(Figure-6)



Try -In (Figure-7)



Post-operative view (Figure-8)

Discussion:

The objective of complete denture therapy is restoration of function; enhance aesthetics and maintenance of patient health. If the tissue presents unstable and undesirable denture base foundation it is a challenging task to the clinician to manage this flabby tissue. The treatment regime begins with the elimination of the cause and start the recovery progress. The treatment approach can be surgical excision of flabby tissue followed by conventional dentures or implant retained prosthesis; removable or fixed conventional prosthodontics without surgical intervention.

Alveoplasty, Surgical excision of flabby tissue followed by denture fabrication on the firm immobile tissue enhances stability and can be one of the treatment options and the patient was not willing for this type of approach. The use of dental implants is also not without difficulty. Therefore the patients for a various reasons such as clinical and financial are unsuited for dental implant treatment.

A treatment was completed for this flabby tissue ridge following window technique. The impression technique which

will compress the non-flabby tissue to obtain support and at the same time will not displace flabby tissue providing a good peripheral seal. If the flabby tissue is compressed during conventional procedure it will tend to recoil and dislodge the resulting denture. Other techniques: 1) one part impression technique (Selective perforated tray): used when degree of mucosal displacement is minimal. Primary impression made with alginate and final impression is made using impression plaster or low viscosity silicone. 2) Palatal splitting using a two tray system: 1964 Osborne, palatal tray impression was made with ZOE and for 2nd tray material used was silicone. 3) Selective pressure flame: it is a muco-compressive technique without displacement. The primary impression is made with alginate or impression plaster. The special tray is constructed and the material overlying firm denture bearing area is softened with a flame before tray is seated under heavy force attempts to replicate functional force and functional impression made with ZOE. 4) Two part impression technique: Mucostatic and muco-compressive combined described by Osborne. Primary impression was made and special tray was constructed with flabby tissue uncovered. Border moulding done and impression of firm supported mucosa is recorded with ZOE paste or medium bodied silicone. Impression of displaced area recorded by impression plaster or light bodied silicone. Rim handle design also plays a role⁶.

Few authors states that the Excision of flabby tissue is contraindicated where little or no alveolar bone remains. The prognosis is questionable if bone augmentation is done. There is also other school of thoughts that retaining this

fibrous tissue provides a cushioning effect and reduces trauma to the underlying bone but after removal the retention is adversely affected because of decrease in sulcus depth and also increase the bulk of the denture base which increases the weight of the prosthesis. It is argued that for conventional prosthodontics retaining a tissue and providing a substantial retention for denture base is more desirable than no ridge at all⁷.

For the elderly patient who are not interested in surgical procedures such as excision of flabby tissue and implants the other alternative such as modification in impression technique can be carried out. For the elderly 82 years patient as he was unable to sit on the dental chair for longer time and the dentures was fabricated within short time using window techniques solved his problems and made patient happy. Hence, management of flabby tissue with modification in impression technique can be one of the best treatment approaches. The advantage of this technique is to check for sequester of peripheral seal and its extension into sulcus before recording the displaceable tissue in static condition.

Conclusion:

A sound knowledge and operator skill is mandatory for choosing an impression technique for successful restoration. The selection of technique should be based on location and extent of unsupported tissues.

Reference:

1) Prasad K, Mehra D, Prasad A. Prosthodontics management of compromised ridges and situations. Nitte

university journal of health sciences march2014; 4(1):141-47.

2) Kumar S, Mishra P, Dutt P and G.C Shiva Kumar. An unusable approach for making impression in the flabby ridge using mesh. International Journal of Recent Scientific Research 2015; 6(9):6628-31.

3) Porwal A, Jain P, Biradar SP, Nelogi S. Neutral zone approach for rehabilitation of severely atrophic ridge. International Journal of Dental Clinics; 2010; 2(3).

4) Ali Mariyam, Chaturvedi Saurabh, Shah M. Innovative Tunnel Technique For Mandibular Flabby Ridge. International Journal Of Dental Clinics 2012; 4(1):74-76.

5) Saluja BS, Ghai KS, Mahajan A, Bajaj H. Management Of Flabby Ridge: A Case Series. Adv. Med Dent Science Res 2015; 3(2):109-115.

6) Naik Ravi, Madhukiran, Ittaghi Jayaprakash. Impression techniques for flabby ridge. Journal of Dental Sciences and Research; 5(1):7-9.

7) R W I Crawford and A D Walmsley. A review of Prosthodontics management of flabby ridges. British Dental Journal December 2006; 199:715-19.

Conflict of Interest declared : Nil

How to cite: Subashani T, Sunil Dhaded: Management of lax tissues to improve possession by window technique. Annals of Clinical Prosthodontics. vol.2, Issue 1; 1-5