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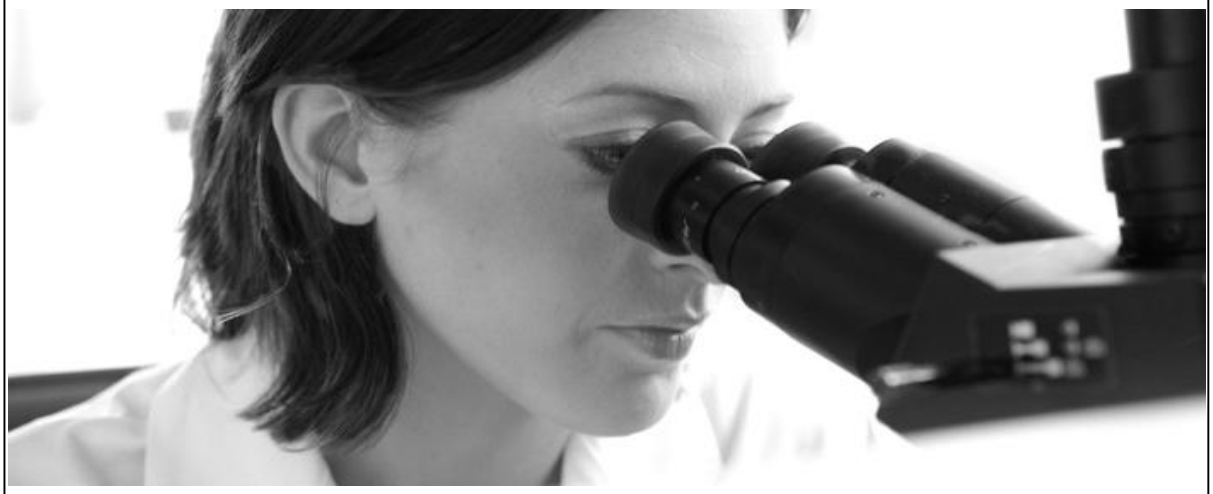

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RESEARCH ARTICLE

AN UNSUAL APPROACH FOR MAKING IMPRESSION IN THE FLABBY RIDGE USING MESH. A CASE REPORT

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ABSTRACT

Prosthethic rehabilitation of the patient with flabby ridges has always been a difficult task for the prosthodontist. Unless managed appropriately, such 'flabby ridges' adversely affect the support, retention and stability of complete dentures. Many impression techniques have been proposed to help overcome this difficulty. 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 the oral tissues for every patient. This case report emphasis over a different approach in the management of flabby ridge patient.

INTRODUCTION

The mucosa over the alveolar ridges by totally edentulous patients is with varying thickness and mobility and is distorted at the time of impression procedure. This distortion duplicated in the finished dentures causes inflammation and instability of the dentures..A "flabby" or "fibrous" ridge is one which becomes displaceable due to fibrous tissue deposition. Most frequently seen in the upper anterior region. It *can* occur when natural teeth oppose an edentulous ridge (Combination Syndrome) however this theory has been disproven.[1] A flabby ridge causes instability of the denture. There are a number of different methods to overcome this problem, such as Surgical removal of fibrous tissue prior to conventional prosthodontics, Implant retained prosthesis, Conventional prosthodontics without surgical intervention.[2,3]

The performance of a complete denture is often a reflection of its support and retention. A master impression for a complete denture should record the entire functional denture-bearing area to ensure maximum support, retention and stability for the denture during use. However difficulties arise when the quality of the denture bearing areas is not suitable for this purpose. Displaceable, or 'flabby ridges', present a particular difficulty and may give rise to complaints of pain or looseness relating to a complete denture that rests on them.[4] A so-called '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.[5] This prevalence of flabby ridges is to be found to be 24% in the edentulous maxilla and 4% in the mandible. A particular problem is encountered if a flabby ridge is present within an otherwise 'normal' denture bearing area. If the flabby tissue is compressed during conventional. The aim of the authors is to present a methods for selective pressure impressions for total dentures treatment by patients who had different kind of abnormalities of the thickness and mobility of the alveolar ridges mucosa.

Case Report

A 69 year old male patient reported to the Department of Prosthodontics, with a cheif complain of difficulty in mastication. The patient had been edentulous for the past 12 years and had two sets of maxillary complete denture made previously. The patient complained that the previous dentures

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were loose. He reported difficulty in eating and speaking with his old dentures. He did not give any relevant medical history. On examination, it was noted that there was an area of flabby tissue in the maxillary anterior region extending from the canine region from one side to the other and blanching of the tissues was seen when pressure was applied with the end of the mouth mirror. The mandible was partially dentulous Kennedy class IV situation.

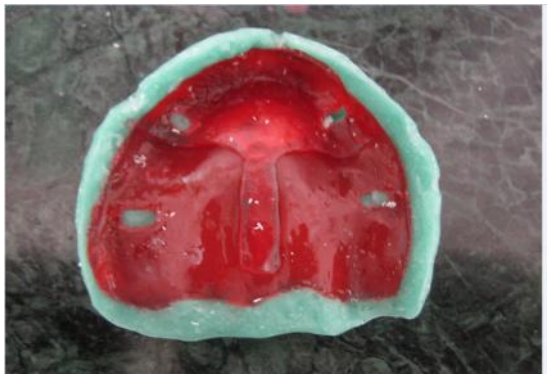

Fig 1a Custom resin tray

Fig 1banterior segment of tray with mesh

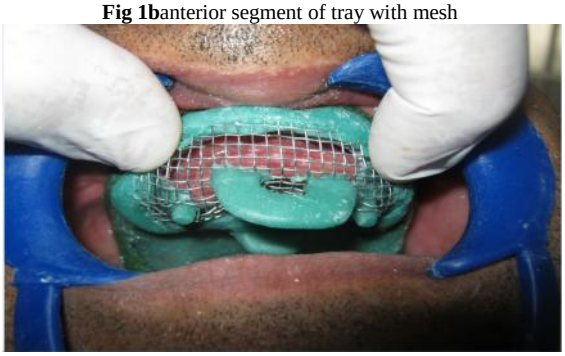

Fig2 Tray try in patient mouth

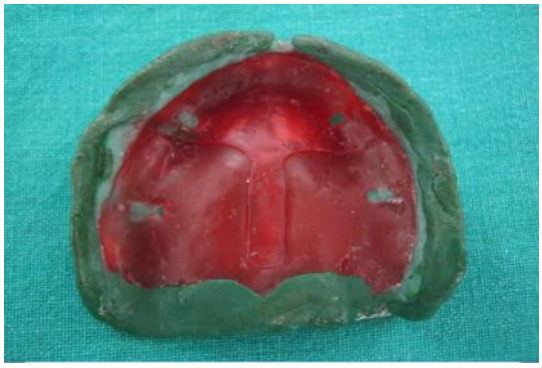

Fig 3 Border moulding

Fig 4 Final impression

Fig 5 Articulation with teeth setting

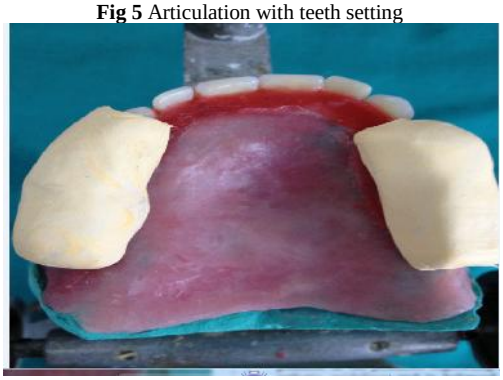

Fig 6 Putty index

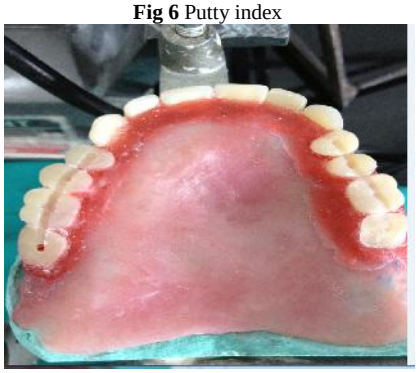

Fig 7 Retentive groves on the occlusal surface

Fig 8 Wax up

Fig 9 Final prosthesis

Treatment modalities like implant supported prosthesis and surgery were explained to the patient. But the patient was not interested in any surgical procedures, thus the possibility of using implant supported prosthesis was ruled out. It was decided to use the Window impression technique for the maxilla.

Intial impressions were made in irreversible hydrocolloid to record the tissues in a minimally displaced form. Custom trays were fabricated in autopolymerizing resin with a T spacer of 1mm thickness. 2 acrylic studs were fabricated and tried in patient mouth.(fig 1 and fig 2) Border molding was carried out for the maxillary arch in the usual manner with greenstick compound.(fig 3)The impression was made with monophase polyvinyl siloxane impression material. A window was cut in the impression through the impression tray exactly corresponding to the area of the flabby tissues in the anterior maxilla. Another impression was taken by the mesh work tray which was fitted over the studs to record the exposed area.

The light body polyvinyl siloxane was syringed on to the flabby tissues exposed through the window and the maxillary impression was completed.(fig 4) Maxillary wax rim was fabricated and bite registration was done. Both upper and lower cast were mounted on the articulator with the help of face bow transfer.(fig 5) Since the teeth in the maxillary denture were opposing natural mandibular dentition metal occlusal was planned in the posterior region. (fig 6) The teeth were set with esthetic guidelines and in balanced articulation.(fig 7 and 8)) After try in, the dentures were processed in the usual manner and curing was done followed by finishing and polishing.(fig 9)The dentures were delivered and post insertion instructions were given. The patient was recalled after 24 hours, 1 week and 2 weeks. Patient did not report any significant post insertion problems with the new dentures.

DISCUSSION

The main complaint of a complete denture that has been made for a flabby ridge, without proper care being taken to avoid the compression of the flabby tissues, is that the denture 'is loose'. The suggested three methods eliminates them excessive displacement of the soft tissues at the secondary impression thus a physiologic and anatomic registration of the attached and the unattached tissue of the denture bearing areas are attained.[6,7] The basic objective of the complete denture therapy are the restoration of function, fascial appearance and the maintaince of the health of the patient.[8]

For patients with flabby ridges, when dentures are fabricated using the conventional impression techniques the patient often complaints of 'looseness' of the dentures. This is because the flabby tissues recoil when recorded in a displaced form and dislodge the dentures.1This problem is circumvented in the described impression technique by recording the flabby area in minimally displaced form and the rest of the tissues in functional form. Addition silicone elastomeric impression materials are used, because these materials are routinely used in dental practice and less brittle as compared to zinc oxide eugenol impression paste or impression plaster and are also less messy to use. It has been shown that there is no significant difference in retention and stability with polyvinyl siloxane materials as compared with zinc oxide eugenol impression paste. The mandibular impression was made with the Admix technique so that the fibrous tissues over the underlying resorbed bone could be displaced to gain support from the bone. This fibrous tissue, if not displaced during impression making, causes uneven loading and acts as pressure point about which the denture would rock.

Other treatment modalities include surgical 'debulking' or excision of the flabby tissues, and the use of dental implants. Surgical 'debulking' of flabby tissues is mainly a historical concept nowadays. The rationale behind its use was that removal of flabby tissues would result in a 'normal' compressible denture bearing area on which a muco-compressive impression technique could be used. Some of the difficulties caused by this approach include the fact that many complete denture patients are elderly or have complex medical histories for which any form of surgery is contraindicated. Furthermore, the excision of flabby tissues and resultant 'shallow' ridge may provide little retention or resistance to lateral forces on the resultant denture.[9,10]

CONCLUSION

Presence of displaceable denture bearing tissue presents a difficulty in complete denture fabrication. Although surgery and implant supported prosthesis are effective treatment options in such cases, it may not always be feasible in elderly patients due to systemic diseases or cost factors. With modified impression techniques and newer materials with improved physical properties and handling characteristics, fibrous ridges can be managed effectively by conventional prosthodontics without any additional clinical visits as compared to patients with normal edentulous ridges.

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