

CASE REPORT

PROSTHODONTIC REHABILITATION OF PATIENT WITH FLABBY MANDIBULAR RIDGE WITH IMPRESSION TECHNIQUE USING POLYVINYL SILOXANE IMPRESSION MATERIAL (LIGHT BODY) - A CASE REPORT

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ABSTRACT:

The presence of displaceable denture-bearing tissues presents a difficulty when making complete dentures. Unless managed adequately, such 'flabby ridges' adversely affect the support, stability and retention of complete dentures. Many impression techniques have been suggested to help overcome these difficulties. While approach varies, they are similar in their complexity and are often quite time-consuming to perform, and depend on materials not commonly in use in general dental practice. The purpose of this paper is to describe an impression technique for flabby ridges that makes use of polyvinylsiloxane impression dental materials routinely available in dental practice

Keywords: Flabby tissue, impressions, polyvinylsiloxane impression material.

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INTRODUCTION

A master impression for a complete denture should 'record the entire functional denture-bearing area so as to ensure maximum support, retention and stability for the denture during use. However difficulties arise whenever the quality of the denture bearing areas are not suitable for this purpose. Displaceable, or 'flabby ridges', presents certain difficulties and may give rise to complaints of pain or looseness associated to a complete denture that rests on them. Published studies indicate that the prevalence of flabby ridges can vary, present in upto 24% of edentulous maxilla and in 5% of edentulous mandibles.³

A particular problem is encountered in the conventional impression making if a flabby ridge is present within an otherwise "normal" denture bearing area. If the flabby tissue is pressed while conventional impression making it will later tend to

recoil and dislodge the overlying denture. Thus, over the years, several impression techniques have been suggested for the impression of a flabby tissue ridge supporting the flabby tissue but at the same time not displacing it.³ This article describes an impression technique using polyvinylsiloxane impression material (light body).

CASE REPORT

A 63-year-old male patient came to the OPD of the Department of Prosthodontics .H.P Govt. Dental College and Hospital, Shimla, with a chief complaint of missing teeth in upper and lower arches and replacement for the same. The patient was a denture wearer for the last 5 years and described the existing denture as "loose fitting." On examination the patient was completely edentulous in upper and lower arches. The anterior canine to canine region was flabby in the mandibular arch. (Figure 1). Fabrication of new complete dentures was planned

for the patient with recording of flabby tissue in undisplaced condition using light body.

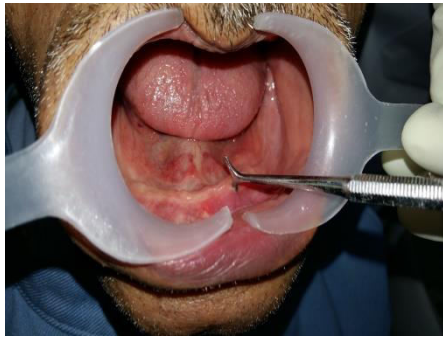


Figure 1: Flabby tissue in the mandibular anterior region

TECHNIQUE

1. The maxillary preliminary impression was made using thermoplastic impression material available in cake form in non-perforated edentulous tray and the primary cast was poured in dental plaster (Fig 2a, b).



Figure 2 a



Figure 2 b

2. After checking the proper tray extensions, border moulding was done conventionally using green stick impression compound (DPI Pinnacle

Tracing Sticks)

3. For mandibular primary impression admixed technique was used. Special tray was fabricated using light cure acrylic and double layer of spacer wax was used. (Fig 3 a ,b)



Figure 3a



Figure 3b

4. The borders of impression were recorded by selective pressure technique using green stick impression compound (Pinnacle tracing stick, DPI, Mumbai, India). (Figure 4 a). The spacer wax was removed and multiple holes were drilled in the region of the flabby tissue (Figure 4 b). Placement of multiple relief holes was done for prevention of pressure build-up in the flabby area thereby leading to inadvertent tissue compression.

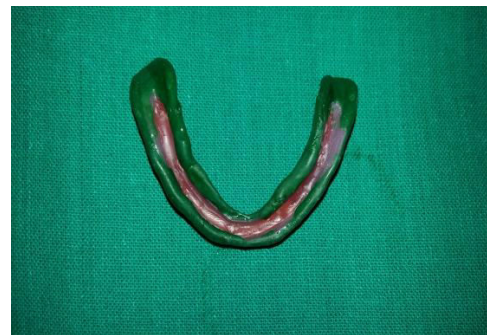


Figure 4a



Figure 4b

5. Tray adhesive was applied and complete mandibular impression with polyvinylsiloxane material was made. Figure 5. Once set, the impression was removed from the mouth and inspected. Any excess material was removed and impression was re-inserted to ensure that it was retentive and did not rock when pressure was applied over the displaceable areas. Caution is advised with the use of polyvinylsiloxane impression materials, as inaccurate manipulation may lead to over-extension of the impression.

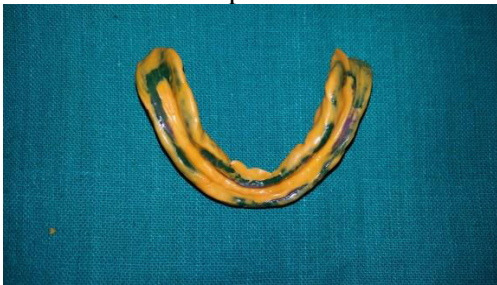


Figure 5

6. The impression was cast in dental stone (figure 6) paying careful attention to preserving the bordered moulded sulcus area.



Figure 6

7. Denture fabrication then continued in the usual manner.

DISCUSSION

There appears to be a consensus in the literature that removal of the fibrous areas surgically often results in a greater prosthodontic challenge. Implant retained prostheses may offer a solution for the problems such as stability and retention in fibrous ridge cases. However, they are not without their downside such as surgery, treatment time, cost, etc. A standard prosthodontic solution may avoid these problems associated with surgery. This paper describes a simple technique to record flabby tissues in their undisplaced state using readily available clinical materials like polyvinylsiloxanes in varying consistencies. The advantage of choosing polyvinylsiloxanes impression material is due to the inherent nature of the material, different consistencies can be achieved by varying the pressure applied on the material.

SUMMARY

A technique for making impressions with minimum distortion of edentulous arches where unsupported and movable tissues exist has been described. Other methods have been reported in the literature; however, the advantages of this method are that it saves chair time, does not require the fabrication of two custom trays, and enables visualization of the impression making of the unsupported movable tissues.

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