

SINGLE COMPLETE DENTURE BOON OR BANE : A CASE REPORT

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ABSTRACT:

Eight to nine natural teeth in good condition in lower arch with a completely edentulous upper arch present a serious problem in prognosis of upper complete denture because of mid-line fractures. The personalities of patients in this situation can be seriously effected by what they consider is a hopeless state of their oral health. They feel that they cannot chew food properly, their mouths are uncomfortable and traumatized, the mandible can never seem to find a firmly defined terminal position and they believe that their physical appearance is marred beyond hope of remedy.

KEYWORDS: Midline Fracture, Metal Denture Base, Single Complete Denture.

INTRODUCTION

The loss of teeth has always been associated with aging. As we look to the future we can expect to find the partially edentulous group of older Indians growing as the years of good dentistry based on caries prevention and oral hygiene and increased levels of care for periodontal tissues manifest themselves. As people retire and move into their later years, they naturally have a loss of income that pension plans and social security benefits do not make up. They then face the distinct possibility that they may not be able to afford the cost of reconstructive dentistry and therefore allow their prosthodontic needs to go unfilled.

The percentage of subsets wearing prosthesis in upper and lower dental arches in the age groups of 65-74 years was 10.2 and 11.1 respectively, 6.4% subject (65-74years) were wearing complete removable dentures in both upper and lower dental arches in surveyed population in India

Case Report:

A 65 year old male patient reported to the Department of Prosthodontics, SRMC, Porur. on examination patient was completely edentulous in the maxillary arch and in the mandibular arch all the teeth were affected with chronic progressive generalised periodontitis, there was generalised recession for all the teeth (**Fig.1, Fig.2A and Fig.2B**)

There was grade III mobility in relation to the central and lateral incisors in fourth quadrant and central lateral and canine in third quadrant, patient was advised for extraction of all the above tooth. During the healing period patient was given a treatment denture in the lower arch and complete removable denture in the upper arch.

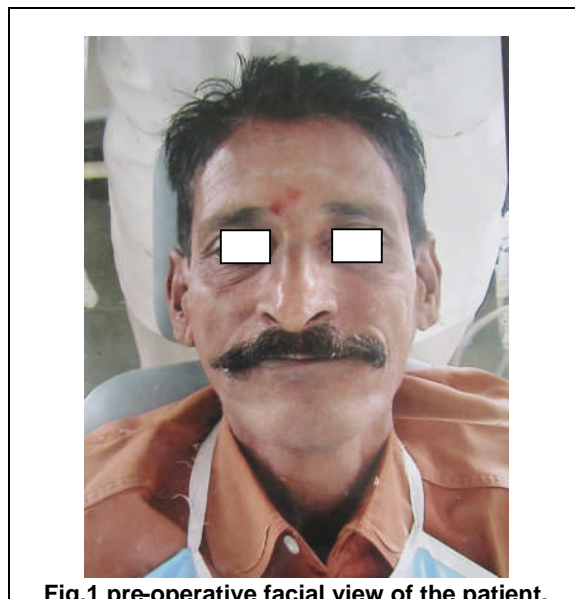


Fig.1 pre-operative facial view of the patient.

Because of the presence of natural teeth in the lower arch the amount of forces exerted on the upper arch will be usually more and is very common in this type of situations, hence the patient was advised for implant supported prosthesis in the upper arch. As the financial condition of the patient was not good, he was advised for metal reinforced denture in the upper arch and cast partial denture for lower arch.

Primary impressions were made with irreversible hydrocolloid (Tropicalgin-Zhermack,Italy) and models were poured in type III dental stone (kalstone, kalabhai, Mumbai). Custom trays (selfcure, DPI) were fabricated for upper arch. Border moulding done conventionally using

green stick compound (DPI, Mumbai) and secondary impression was made with polyvinyl-siloxane light body (Exaflex, GC Europe) impression material. Model was poured in type1V dental stone (Kalrock, kalabhai Mumbai). A metal frame work was casted and jaw relations were recorded (Fig.3). Teeth trial was done and dentures were acrylized, trimmed and polished(Fig.4 and Fig.5). Denture insertion was done and patient was advised to report for post insertion check-up after 48 hours (Fig.6 and Fig.7).

Discussion:

The most frequently seen combination denture is a mandibular class I or II partial denture opposing a maxillary complete denture⁴.

In unusual circumstances it might be possible to construct a mandibular denture to a pre-existing clinically acceptable complete maxillary denture but in most cases the occlusal plane and the tooth position in the maxillary denture will be less than ideal, if the denture was constructed to oppose natural mandibular teeth that have since been extracted to obtain an acceptable result in the vast majority of cases it will be necessary to construct new dentures and to develop the occlusal scheme simultaneously. In this case mandibular class IV partially edentulous condition was opposing a complete maxillary edentulous ridge. The most common problem in this condition is midline fracture of maxillary complete denture

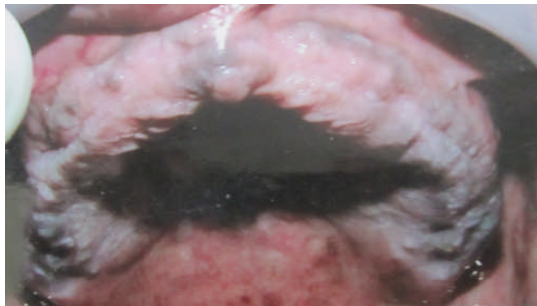


Fig.2A. Maxillary edentulous arch



Fig.2B. Mandibular class IV partially edentulous arch



Fig.3. waxed up frame work.



Fig .4 cameo surface of finished prosthesis.



Fig .5 intaglio surface of finished prosthesis.

if the denture base was fabricated in heat cured acrylic resin. To resolve this problem and prevent posterior ridge resorption which will be faster because of presence of opposing natural teeth, it is always advisable to go for implant supported prosthesis. Because of poor financial status of patient a cast metal reinforced maxillary denture was constructed. The main advantages of metal denture bases are good thermal conductivity, no tendency for permanent deformation and because of high polished surfaces there will be less adherence of bacteria to the prosthesis and frequent relining of the denture was advised to stabilize ridge resorption.

CONCLUSION

In conditions where a single complete denture opposing natural teeth the occlusal forces exerted on the denture are always very high and there will always be a fracture of acrylic denture base it is processed in resin. Hence it is always advantageous to use metal denture base as it has a good fracture toughness and when the patient is having a compromised systemic conditions and financial status. Every patient must be aware from the outset that the longest possible life of any prosthesis with the least possible harm to the remaining tissues can only be ensured by regular recall and maintenance care³.



Fig. 6 intraoral view of finished prosthesis.

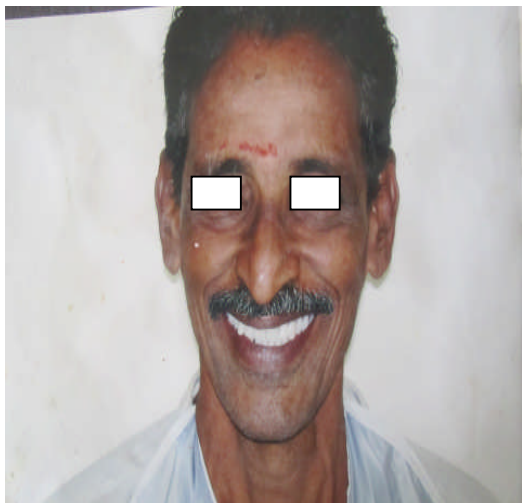


Fig .7 post-operative facial view of the patient

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