

Management of Severely Resorbed Ridges with Implant Supported Over Denture Using Hader Bar Attachment: A Case Report

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ABSTRACT

Background: Preventive prosthodontics can delay or eliminate the future prosthodontic problems. The over denture is a logical method for the dentist to use in preventive prosthodontics. Implant supported over denture is a reliable treatment option for the patient with edentulous mandible when they have a difficulty in using complete denture. Among various attachment systems bar attachment has a greater retention and better maintainability than others. This case reports presents management of severely atrophied edentulous mandible with bar attachment implant supported over denture.

Keywords: Dental Implant, over denture, Hader bar, Attachment systems.

INTRODUCTION

Problem encountered in edentulous patients with a severely resorbed mandible medial plane during mastication and retention of the denture especially with regard to the mandibular denture. Treatment concepts involve two or four Implants for support of the over denture. Many patients are satisfied with a stable Implant supported over denture that requires limited clinical time and financed expense (1-3)

CASE REPORT

A 60 year old female patient by name puttagamma reported to department of Prosthodontics. On intra oral examination, completely edentulous upper and lower arches were observed [Fig 1] Radiographically [Fig 2] there is loss of bone (atrophy) = Atwood classification

Treatment Plan:-

Implant supported bar over denture was planned where three implants placed one at Incisal (central) and two Implants at the canine region i.e left and right region [Fig 3]. After 6 months of implant placement patient was prosthodontically rehabilitated with bar retained implant supported over denture

Prosthodontic Management

Customs tray was fabricated to obtain final impression with transfer copings. A metal hader bar was fabricated on the cast and then tried on the implants in the patient mouth to check for seating. Then it was transferred back to cast and record bases were fabricated. Phonetics and closest speaking space were used as a method for determination of vertical dimension of occlusion. Neutral zone was determined for arranging the

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Fig 1: Intra oral photograph.

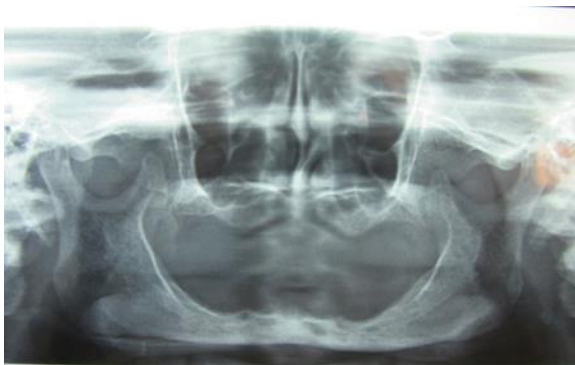


Fig 2: Preoperative radio graph.

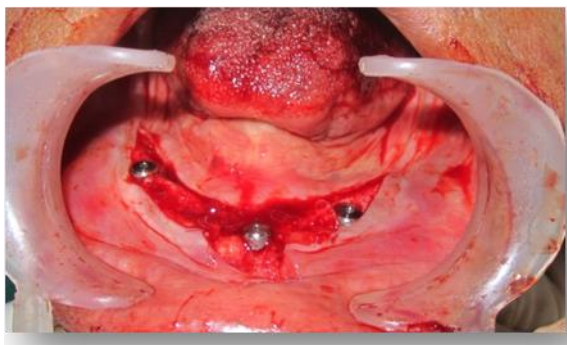


Fig 3: Implant in situ.



Fig 4: A: Bar attachment in situ, B: Metal housing along with clips in tissue surface of mandibular denture.

lower teeth. A trial insertion was done for checking retention of prosthesis. After processing insertion



Fig 5: Post – operative photograph of patient.

was done and subjective follow up was done with periodic recalls [Fig 4a, b]. Maxillary denture was fabricated in conventional manner and Post operative photograph of patient [Fig 5].

DISCUSSION

Depending on the clinical situation the prosthesis must be designed such that it should withstand and resist lateral forces and dislodgment of prosthesis along with adequate tissue support. Various types of attachment systems are available, and different manufacturers provide different variety of attachment designs, but mainly there are four types of attachment assemblies which are commonly used⁽⁴⁾

- a) Studs
- b) Bar and Clips
- c) Magnets
- d) Telescopic AND TELESCO

These bar attachments improve comfort of the patient and chewing efficiency, and minimize trauma of the underlying supporting tissues.^(5, 6)

Implant supported over dentures

- (1) Improves prosthesis stability and retention
- (2) Improves chewing efficiency
- (3) Eliminate soft tissue abrasion
- (4) Eliminate prosthesis movement

CONCLUSION

Denture fabrication for patients with severely deficient mandibular ridges has been challenging task for dentists. Implant supported over denture in the mandible provides predictable results with improved stability, retention, function and patient satisfaction compared with conventional dentures.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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