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Case Report

A simplified clinical approach towards renovated esthetics using flangless denture: A case report

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ABSTRACT

In edentulous patient, restoring labial fullness is a delicate technique. To achieve our clinical aim, proper communication between the dentist and the laboratory technician is required. In some completely edentulous cases, the prominent enlarged labial flange of a complete denture contributes to poor facial aesthetics. To solve this problem, the complete denture was adjusted and a gum-fit or flangless denture was prescribed. This case reports presents a simple, cost-effective, conservative and non-surgical option for fabricating dentures in a patient with a large maxillary ridge in order to improve the patient's facial aesthetics.

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1. Introduction

In completely edentulous patients, we encounter ridges of various shapes and ridges. Ridges may be severely resorbed to partially resorbed depending on the individual patient enormous prominent bone noticeable more commonly in maxilla than in mandible.¹ Fabricating a complete denture prosthesis which is esthetics as well as retentive is a significant challenge in such cases.^{2,3}

Although a due consideration must be given to pre-prosthetic surgery in such cases of anterior maxillary prominence only if this pre-prosthetic surgery option is ruled out which may be due to non-willingness of the patient or due to systemic factors, we should proceed for the flangless denture.^{4,5}

2. Case Reports

A sixty-year old patient reported to the prosthodontic clinic having chief complain of difficulty in chewing food because of missing teeth since 5 years. On examination

there was no teeth in maxillary arch and partially dentulous mandibular arch was seen. Intraoral examination disclosed the U shape maxillary arch with bulkiness over the anterior portion of maxillary ridge (Figure 1). Patient was suffering from uncontrolled diabetes therefore the surgical alternative of alveoplasty followed by construction of a complete dentures or implant supported prosthesis wasn't appropriate and thereby ruled out regular complete denture in this clinical situation may have leads to unesthetic looks because of bulkiness created on the labial portion of the upper anterior jaw. Full mouth examination was done and no other abnormality was detected. To satisfy the patient's desires, a upper complete denture with an meticulously designed labial projection was made.

Maxillary primary impression with impression compound and mandibular impression with alginate was made (Figure 2). Impressions poured with dental plaster and dental stone respectively. Custom trays were made up on the diagnostic cast. Peripheral sealing of upper arch with green stick compound was done (hiflex tracing sticks). Zinc oxide eugenol impression material used to make the final impression (Figure 3). Impression was

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poured with dental stone and master cast was obtained. Record base with autopolymerising resin was fabricated and occlusal rims were made. Facebow transfer was carried out and occlusal rims were mounted on semi adjustable articulator (Figure 4). Teeth were arranged and try in of the waxed up denture was done (Figure 5).



Fig. 1: Pre operative intraoral



Fig. 4: Face bow transferred



Fig. 2: Preliminary impression



Fig. 5: Try in

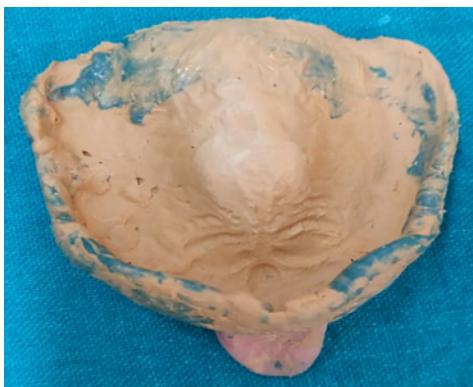


Fig. 3: Final impression

A space was made on the anterior region of maxillary prosthesis in such a manner that no complete/regular flange was there labially in order to impart a normal labial fullness to the patient. Adequate thickness, thereby proper strength

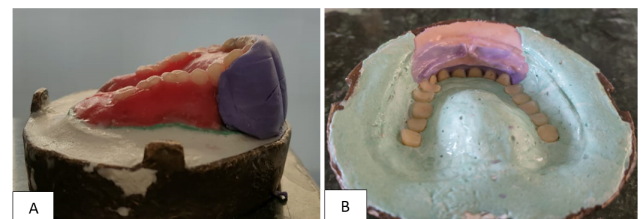


Fig. 6: A and B: Elastomeric impression material (putty consistency) was placed on the anterior aspects (i.e on the labial flange area) and dewaxing was done



Fig. 7: Denture insertion



Fig. 8: Post treatment extraoral

of maxillary denture on the anterior aspect was ensured. Try in of wax- up teeth arrangement was done (Figure 5). Prosthetic teeth were waxed up and record base was sealed. Now to save the waxed design of the labial flange, in the anterior portion of master cast, V shaped sharp grooves were made. Elastomeric impression (putty consistency) was placed anteriorly (Figure 6). On the three external grooves, putty was placed to orient it duly with the plaster during counter-flasking. Remaining lab process was performed in the customary fashion.

Properly processed, finished and polished, denture were insertion (Figure 7). Patient satisfaction with retention, function, esthetics was there. He had no problem in speech and his apprehension regarding fuller look anteriorly by the absence of regular complete flange.

3. Discussion

A meticulously thought treatment gives a way for a great prosthesis. Patients with abnormally prominent ridges may not be esthetically pleasing. The bulky labial flange which may lead to non satisfactory esthetic appearance of maxillary denture. Creation of overall harmonious esthetic is as pivotal as rehabilitation of lost teeth.⁶ To confront such a compromised clinical situation, a diligently formulated treatment plan is required. Additionally, the pre prosthetic surgical repair of such completely edentulous ridges is restricted by systemic illness like diabetes, hypertension, and cardiovascular impairment. Many author named it as “good fit dentures”, “crest grip esthetic prosthesis” or “wing denture”.^{7–11}

4. Conclusion

Conclusively, it may be said that by fabricating this flangeless denture we are successful in giving to patient a prosthesis which is acceptable functionally and esthetically. This conservative treatment approach has significant advantages of non- subjecting the patient to surgical stress, simplicity and ease of designing and economics.

5. Source of Funding

None.

6. Conflict of Interest

None.

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