

Detachable Cheek Plumper Using Orthodontic Lingual Button For Improved Denture Esthetics: A Clinical Technique

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Abstract

Following loss of teeth and residual ridge resorption, facial esthetics is highly affected. The rehabilitation of lost structures should not be only aimed at replacing the lost teeth but facial changes associated with the edentulism should also be addressed. Objective of this technique article was aimed to improvise the excessive shrunken cheek appearance through fabrication of customized detachable cheek plumper. In this article, a novel, simple and easy technique has been described to fabricate a detachable cheek plumper for the management of shrunken cheek appearance using modified orthodontic lingual button and elastic tooth separator. Following fabrication of detachable cheek plumper and insertion, shrunken cheek appearance was improved and overall facial esthetic was enhanced. Cheek plumpers are simple to make and offer a noninvasive and cost-effective option for patients with sunken cheeks who want to improve their facial look. Patient's aesthetics and psychological well-being benefit from this treatment. The use of detachable cheek plumper improves patient comfort, resulting in higher acceptance of the prosthesis.

Key words: Cheek Plumper; Complete Denture; Facial Esthetics; Orthodontic Lingual Button.

Introduction

Facial aesthetic is important in both professional and social situations. The contour of jawbones, teeth, soft tissues and muscles in the oral cavity influence the appearance of the lower half of the face. In edentulous patient, facial esthetic is highly compromised due to dented cheeks.¹

Conflict of Interest: None

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The replacement of lost teeth and the restoration of facial esthetics are the objectives of oral rehabilitation through complete denture treatment. The denture flanges and teeth are required to provide adequate support to the soft tissue drape formed by lips and cheeks around the denture. However, conventional dentures fail to provide adequate support in people with significant alveolar resorption, reduced muscle tonicity and deeply sunken cheeks necessitating additional cheek support. This need of additional support can be addressed by the use of cheek plumper.² Patients with maxillofacial deformities and facial paralysis have been benefitted by the use of cheek plumper to improve their appearance and psychological profile.³

This dental technique describes a simple method to fabricate a detachable cheek plumper for the management of shrunken cheek appearance using modified orthodontic lingual button and elastic tooth separator.

Clinical technique

1. Select the number of anchorage units in accordance to the size of the cheek plumper. Select the pre-fabricated orthodontic lingual button; seat the elastic tooth separator onto the lingual button. Select the best match of tooth separator for the selected lingual button for best fit and grip (Fig.1A, 1B).
2. For mechanical anchorage of lingual button in the denture flange, modify the bonding surface of the lingual button to create an undercut and increase the height for embedding the lingual button into the denture flange. (Fig. 2A, 2B)
3. Make equidistant recesses equal to the number of lingual button on the polished surface of the buccal flange bilaterally.
4. Position the tooth separators onto the embedded lingual buttons. Transfer the exact location of the lingual button onto the already fabricated cheek plumpers by transfer of marks using articulating paper. (Fig. 4A) Make recesses of slightly larger size than the elastic tooth separator and secure them into the plumper using self-cure acrylic resin. (Fig. 4B)
5. Attach both the plumpers onto the maxillary denture and verify the retention and any gap between the flange and plumper. (Fig. 5)
6. Insert the denture with plumper in the oral cavity and evaluate the esthetic outcome (Fig. 6A, 6B).



Figure 1A: Lingual button



Figure 1B: Orthodontic tooth separators

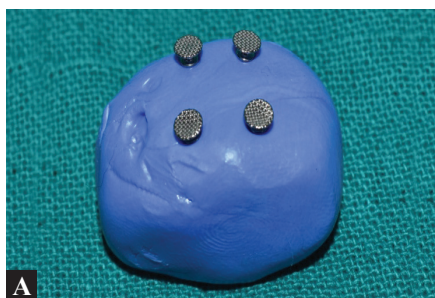
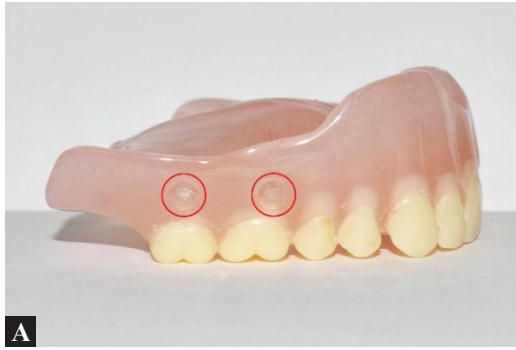


Figure 2A: Mount the lingual button for solder



Figure 2B: Lingual button with increased height after soldering



A
Figure 3A: Engraved recesses



B
Figure 3B: Attachment of lingual button



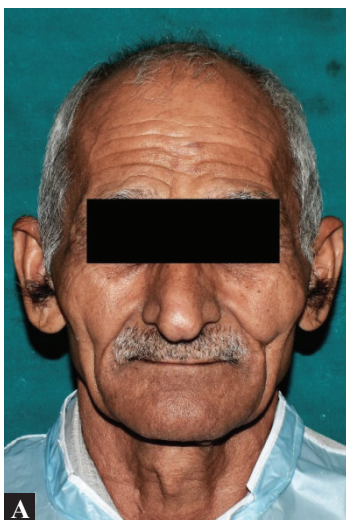
A
Figure 4A: Seated orthodontic tooth



B
Figure 4B: Attached orthodontic tooth separators into plumpers separators onto attached lingual button.



Figure 5: Plumpers attached to complete denture



A
Figure 6A: Pre-rehabilitation view



B
Figure 6B: Post-rehabilitation view with prosthesis and cheek plumper in situ

Advantages

This technique describes a simple, easy and convenient method of fabrication of detachable cheek plumper attachment for better esthetic results in compromised facial esthetic cases. It is time saving as it does not involve casting of the attachments. The detachable plumper offers a convenient handling for removing and rejoining the plumper by the patient. Moreover, the material required is routinely used in dental practice and is cost-effective.

References

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