

**AN INNOVATIVE APPROACH TO ENHANCE FACIAL AESTHETICS USING
DETACHABLE CHEEK PLUMPER – A CASE REPORT****Jyoti Tripathi^{*1}, Medhavi Singh² and Nivedita Tripathi³**^{1,2}Post Graduate Student, Department of Prosthodontics, Army College of Dental Sciences, Secunderabad, Telangana, India.³Undergraduate Student, Sardar Patel Postgraduate Institute of Dental and Medical Sciences, Lucknow, Uttar Pradesh, India.***Corresponding Author: Dr. Jyoti Tripathi**

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ABSTRACT

Aesthetics plays an important role in a person's social and professional life. Complete denture treatment includes not only the replacement of missing teeth but also the restoration of facial appearance. Prosthetic rehabilitation of a completely edentulous patient no longer confines to replacement of missing teeth. Patients are increasingly demanding improvement in aesthetics at the end of treatment. This article describes a simple and innovative approach to improve the aesthetic of an edentulous patient with flaccid cheeks using detachable cheek plumper prosthesis.

KEYWORDS: Aesthetics, Complete Denture, Cheek Plumper, Sunken Cheeks.**INTRODUCTION**

An edentulous patient due to aging, suffers loss of alveolar process and teeth, loss of tonicity of musculature, loss of elasticity of the skin and impairment of function.^[1] This may cause the patient to look much older than their age and has a negative impact on their social and professional lives.^[2] Rehabilitation of lost structure and esthetic is essential for a dentist to provide psychological support to the patient. Loss of teeth, loss of tonicity of muscle and aging are the prime cause of sunken cheeks.

Cheek plumper is the prosthesis which not only improves the esthetics but also can increase patient's confidence. It extends premolar to molar region and supports the cheek. Fabrication of a single - piece denture with cheek plumper has its own limitation(s) which includes difficulty during insertion and removal in patients with limited mouth opening.^[3] This technique offers more advantages in terms of ease of use (attaching and detaching the cheek plumper from the denture) and maintenance of oral hygiene.^[4]

CASE REPORT

A 55- year old male patient reported to department of prosthodontics with the chief complaint of replacement of missing teeth in upper and lower jaw. On intraoral examination, both the maxillary and mandibular arches were completely edentulous. Patient lost all his teeth 7 years back as they were mobile and loose. On extra-oral

examination, sunken cheeks and poor facial esthetic was found due to unsupported cheek muscles (Fig.1.).

As patient was concerned about his missing teeth along with sunken cheeks, treatment plan was finalized keeping patients functional and aesthetic demands in mind.

Maxillary and mandibular impressions were made and custom tray was fabricated using cold cure acrylic. Border moulding was done using low fusing green stick compound and secondary impression was made using zinc oxide eugenol impression paste. Master cast was poured and jaw relation was recorded. Try-in was done to check the esthetics and speech. Wax attachment was added extending from 2nd premolar to 2nd molar region on both sides. Muscle activity was checked and extra wax was trimmed with lacron carver till the wax was adapted without hindering muscle activity. Flasking and de-waxing was done of the complete denture after the removal of the wax attachment, denture was processed, trimmed and polished. The wax attachment was again checked in patient's mouth after attaching it over both the buccal side of the denture. Separate flasking and de-waxing was done for the wax attachments (Fig.2). After de-waxing the space was filled with cold cure acrylic and the flasks were closed under pressure. After setting of the acrylic material de-flasking was done and the attachments were retrieved, finished and polished. Due to poor economic condition push buttons were opted over magnets. 2mm deep and 5mm diameter space was

created using #8 round bur on 2nd premolar and molar region of the maxillary denture and the obtained acrylic attachment. Male and female components of push buttons were adapted over the created space with the help of self-cure acrylic (Fig.3.).

The denture and cheek plumper was finished and polished (Fig.4.). Denture was checked in the patient's

mouth with the cheek plumper and minor adjustments were done. Post insertion instructions was given and patient was educated regarding the attachment and removal of the cheek plumper. Patient was satisfied and happy with the appearance (Fig.5.). Follow up was done after 1 week, 1 month, and 6 months. Patient is still on follow up.



Fig. 1: Pre Treatment View.



Fig. 2: Flasking of Cheek Plumper.

DISCUSSION

Due to flaccid appearance of cheek and facial muscles, cheek plumper was introduced in this conventional denture. Detachable cheek plumper provide an advantage to detach the cheek plumper if they lead to muscle fatigue on long term use. Detachable cheek plumper are good option in patients with less mouth opening. Detachable cheek plumper was used to reduce the weight of the denture and to reduce the muscle fatigue. Muscle fatigue can be prevented if patient has the option of removing the cheek plumper when experiencing discomfort.^[5] Placement and removal of denture is also made easy with detachable cheek plumper.

In the past, magnet retained plumper prosthesis have been used but they exhibit poor corrosion resistance and loss of magnetic property over a period of time.^[6] Clinical magnets are expensive option, push button attachments are the most affordable means to attach cheek plumper to the denture. Therefore in this case push button cheek plumper is considerate option. Clinicians can choose the appropriate attachment according to the thickness and height of the denture flange and the dexterity of the patient.^[7]



Fig. 3: Attachments on Denture.



Fig. 4: Finished and Polished Cheek Plumper.



Fig. 5: Post Treatment View.

CONCLUSION

The dentist's ability to understand and recognize the problems of edentulous patients, to select the proper course of required treatment and reassure them has proven to be greatest clinical value. In this case not only the chewing efficiency was improved also the psychological support was provided to the patient by improving the esthetics.

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