

Hollow Cheek Plumper: A Conventional Approach to Enhance Esthetics for Sunken Cheeks

Karanveer Singh^{1*} Harleen Chhina² Navsharanjit Kaur Chhina³

¹Senior Lecturer, Department of Prosthodontics, Rayat and Bahra Dental College and Hospital, Mohali, Punjab, India.

²Senior Lecturer, Department of Conservative Dentistry and Endodontics, Rayat and Bahra Dental College and Hospital, Mohali, Punjab, India.

³MDS, Department of Prosthodontics, Jalandhar, Punjab, India.

ABSTRACT

Background: Denture esthetics is not only confined to selection of teeth based on factor like shape, color, arrangement and sex. Instead it is more about harmonization between artificial and natural tissue¹. Prosthodontist mainly deal with the rehabilitation due to loss of teeth, restoration of the tonicity of the musculature and restoration of speech². Usually certain facial structure get support from denture flanges but sometime denture flanges does not provide sufficient support to the facial musculature for that purpose cheek plumper is required.

Keywords: Esthetics, Hollow Cheek plumper, Sunken Cheeks.

INTRODUCTION

The success of complete denture depends on three major factors i.e Retention, Stability and Support. The prosthodontist skill lies in applying these three principles along with Esthetics for the success of complete denture prosthesis. In old age patients usually have loss of support of the facial musculature and usually due to early loss of teeth their cheeks appear sunken. This clinical report describes technique to improve support for sunken cheeks using conventional method. A conventional cheek plumper prosthesis is a single unit extension near premolar region which support the cheek.

CASE REPORT

A sixty-one-year-old male patient reported to the Department of Prosthodontics, with a chief complaint of replacement of existing dentures. The patient gave a history of loss of teeth over a period of five to seven years. He was not happy with the sunken appearance of his cheeks as aesthetics was one of the prime concerns. Clinical evaluation revealed resorbed maxillary ridge with sunken cheeks. It was decided to rehabilitate the patient

with a maxillary complete denture with attached cheek plumper and a conventional mandibular denture.

TECHNIQUE

The preliminary impression was made with impression compound and casts were prepared. Fabricate a custom impression tray on the preliminary cast using cold cure acrylic resin. Adjust the border extension of the tray to be at least 2 mm short of the sulcus area.

Border molding was carried out conventionally using low fusion impression compound and secondary impression was made for both the upper and lower ridges with zinc oxide eugenol impression paste. The impressions were poured with dental stone and base plate and occlusal rims were fabricated on them. Jaw relations were recorded and hence transferred on the articulator.

At the time of try in, extra wax was added to the buccal maxillary region to plump the cheek region the wax was resoftened and placed back into the mouth asking the patient to repeat the functional

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*Correspondence Dr. Karanveer Singh.

Department of Prosthodontics, Rayat and Bahra Dental College and Hospital, Mohali, Punjab, India.

Email: dockaranveer@gmail.com

movements. This wax was later adjusted in the patients mouth according to the requirement of the patient. The try-in maxillary denture was invested and dewaxed

Heat cure in dough stage was positioned accurately in the plumper region and salt crystal was placed over it and rest of the area was packed with heat cure and cured at 74° C for 7-8 hours. Cured denture were retrieved and 2 holes were made in the plumper region all the residual salt crystal were removed through the holes ,after making sure that all the salt have been removed through the holes ,they were closed with autopolymerising resin . The hollow cheek plumper was verified by immersing the denture in water, the denture was inserted in the patient mouth and instruction regarding care, hygiene and maintenance were given.



Fig 1a) Sunken appearance of the patient. B) Patient during tryin procedure

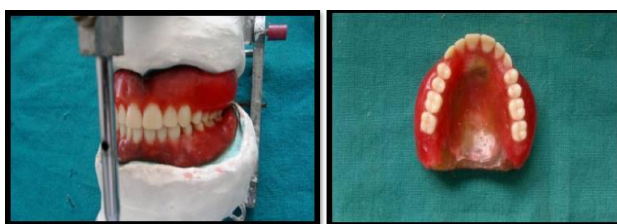


Fig 2a) Teeth setting with Cheek plumper. B) Cheek plumper in buccal maxillary region.



Fig 3a) Patient with the prosthesis. b) Patient's smile restored

DISCUSSION

Denture esthetics is not only confined to selection of teeth based on factor like shape, color, arrangement and sex .instead it is more about harmonization between artificial and natural tissue¹.prosthodontist mainly deal with the rehabilitation due to loss of teeth, restoration of the tonicity of the musculature and restoration of speech ².Usually certain facial structure get support from denture flanges but sometime denture flanges does not provide sufficient support to the facial musculature for that purpose check plumper is required. Lazzari³ described fabrication of a maxillary removable partial denture for a patient with unilateral facial paralysis. Design included an open loop of eight gauge half round wire attached in the area of first bicuspid which elevated and supported than upper lip and corner of the mouth. Larsen et al⁴ advocated fabrication of maxillary removable partial denture framework with a retentive mesh in the bicuspid region which was reinforced with modeling plastic to obtain desirable contour on evaluation of speech and esthetic was later substituted with autopolymerising resin .

The conventional cheek plumper design was the one which cannot be detached from complete denture. such a design had disadvantage like excessive weight. This flaw was removed using detachable plumper using magnets. Magnetic plumper has various advantages like small size and they produce strong attractive forces between plumper portion and buccal tissue surface of denture. Certain studies have discussed the uses of press stud fastner⁵⁻¹⁰and magnets ⁵⁻⁸. But magnetic plumper are costly and have poor corrosion resistance. have harmful effects on the health of oral tissue and loss of magnetic property over a period of the time results in need of frequent replacement. To overcome these disadvantages a conventional method hollow cheek plumper is fabricated. This technique of lost salt technique is simple to execute and utilize a very cheap and easily available spacer method ¹¹.

CONCLUSION

This innovative technique is easy to fabricate and cost effective. Although check plumper has a few drawbacks includes the accumulation of food, patient discomfort resulting from the additional

weight and bulk of the denture. In order to reduce discomfort to patient due to additional weight hollow cheek plumper is one of the attempts. the advantages of hollow cheek plumper is the reduction in the excessive weight of acrylic resin resulting in the lighter prosthesis.

CONFLICT OF INTEREST

No potential academic conflict of interest relevant to the above article was reported.

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