

## CASE REPORT

### Facial Lift in Geriatric Patient: The Prosthodontic Way

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#### ABSTRACT:

The edentulous state represents a compromise in the integrity of the masticatory system. Edentulousness is followed by adverse functional and esthetic sequelae which are perceived varying by the affected individuals. Patients perceiving edentulousness as socially unacceptable seek dental treatment both for function and esthetic or cosmetic reasons. One of the facial disfigurement with the ageing is sunken cheeks. This case report presents a method for the facial lift of sunken cheeks by the use of detachable cheek and lip plumpers in an edentulous patient.

**Key words:** Hollow cheeks, plumpers, attachments.

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#### INTRODUCTION

Esthetics plays an important role in a person's professional and social life. Cheeks impart greatly to the facial esthetics. Hollow cheeks give patient an aged appearance. Hollow or slumped cheeks are caused by resorption of supporting alveolar ridge after extraction of molars associated with loss of fat and muscle tonicity due to ageing.<sup>1</sup>

At times, support to the circum-oral muscles is given by the flange of the dentures but it does not provide the required fullness of the cheeks. Cheek plumper or cheek lifting appliance is a prosthesis for supporting and lifting the cheek to provide required esthetics that will increase the self-esteem of the patient.<sup>2</sup>

A cheek plumper can be of two types: detachable or undetachable. Undetachable cheek plumpers are conventional single unit prosthesis with extensions on either side on the polished buccal surfaces of the denture. Detachable cheek plumpers are prosthesis in which the plumpers can be detached from the denture. This can be achieved by magnets or customized attachments.<sup>3</sup>

This case report presents a method for facial lift in a geriatric patient with sunken cheeks by using detachable cheek and lip plumpers using push buttons as attachments.

#### CASE REPORT

A 70 year old male patient visited the Department of Prosthodontics for a set of new denture. Extraoral examination of the patient revealed the loss of lip support and sunken cheeks.

For the improvement of the facial esthetics, patient was explained about the plumpers. Since both lip and cheek plumpers were necessary, use of detachable plumpers was planned. However, the patient belonged to a low socio-economic status, so, use of push button as an attachment was agreed.

Primary impressions of the maxillary and mandibular arches were made. The impressions were poured in Type II dental stone. Spacer was adapted on both maxillary and mandibular casts. Custom tray was fabricated using self-cure acrylic resin.

Maxillary and mandibular border molding was performed. Maxillary impressions were made with zinc oxide eugenol impression paste and mandibular with light body impression material after the removal of spacer wax. Impressions were poured with Type III dental stone. Occlusal wax rims over self-cure acrylic resin trays were made.

Maxillomandibular records were transferred to the articulator. Then maxillary and mandibular casts were mounted. Teeth setting was done on the mounted casts.

Small wax sheet was folded and used as a lip plumper. Push button was attached to it. Similarly, cheek plumpers were made.

Try-in of the teeth arrangement was done along with the plumpers. Improvement in the facial contours and esthetics was evident. Patient was satisfied the trial.

Wax-up, flasking, curing and polishing of the denture was carried out in conventional manner. The plumpers were polished and flased in a dental flask. Then the conventional curing and polishing methods were followed.

Final prosthesis was given to the patient. Patient was cautioned about avoiding the use of any acidic material for cleaning and avoiding acidic food beverages as they may corrode the push buttons. Patient was given oral hygiene maintenance instructions. Patient was explained that he could any or all plumpers if he is uncomfortable as during mastication of food.



**Figure 1:** Preoperative extra oral frontal view



**Figure 2:** Intra oral view



**Figure 3:** Primary impression



**Figure 4:** Final impression



**Figure 5:** Try-in with lip and cheek plumpers



**Figure 6:** Final maxillary denture



**Figure 7:** Denture with lip and cheek plumpers- extraoral

#### DISCUSSION

The primary role of the complete dentures is to restore the masticatory function, speech, deglutition and esthetics. However, if along with denture esthetics, the facial contour and form is also harmonized, it enhances the overall appearance of the patient.

Cheek plumper or cheek lifting appliance is a prosthesis used to support and plump the excessively slumped cheeks as a result of tooth loss and loss of muscular tonicity.<sup>4</sup> They were initially used as intraoral splint in patients with Bell's Palsy.<sup>5, 6</sup> Such prosthesis are indicated in patients with maxillofacial defects or for restoring esthetics in patients with hollow or sunken cheeks. However, the drawback of using plumpers is excessive weight to the maxillary denture compromising retention, interference with the masseter muscle and coronoid process of mandible thus affecting the mastication.<sup>7</sup>

Use of undetachable plumpers in conventional dentures posed another difficulty in insertion and removal of the prosthesis. Thus, detachable plumpers can be used with magnets or other attachments.

Kamakshi et al used magnets as attachments and observed the loss of magnetism over a period of time.<sup>8</sup> Use of magnets allow for easy placement as they are self seating<sup>9</sup> and also easy cleaning. Disadvantages of magnets include poor corrosion resistance and alleged harmful effects of magnetic field on the health of oral tissues.

Thus, push buttons were used in the present case to enhance the longevity and economical and easily availability. They can be easily removed when patient feels muscle fatigue.

## CONCLUSION

Treatment of edentulous patient should not be confined to replacement of missing teeth but should also include the recognition of the problems of the edentulous patient and use of methods to reduce, if not eliminate, the problems associated.

This case report describes a simple and cost- effective method to restore the cheek and lip fullness of a patient with sunken cheeks and lip to an extent that comfort and function would permit and boost the self-esteem of the patient by improving appearance.

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