Improving denture esthetics with magnet retained cheek plumpers: A case report

Pardeep Bansal, Gagandeep Kaur Chahal and Jaspinder Singh Gill

Abstract
Facial esthetics have become an integral part of dental treatment. These days the expectations of a prosthesis are not limited to the replacement of missing teeth but include a lot more of their facial outlook. Sunken cheeks add years to the patient’s age. This case report describes a technique to improve support and esthetics to sunken cheeks using magnets retained detachable acrylic cheek plumper. The plumper provides fullness and magnets support them.

Keywords: Parental attitude, participation, sports, girls

Introduction
In the current scenario of the world a person’s professional and social life, esthetics play a significant role. Cheeks due to their extreme visibility are an important factor in determining facial esthetics. Hollow cheeks or Slumped cheeks can add years to a person’s age and hence have a detrimental psychological effect on the patient. Facial esthetics has become an integral part of completed denture prosthetic and no longer confines to just replacement of missing teeth. If the lips and cheeks are unsupported, muscles become weak and do not function properly which leads to wrinkling of skin and sagging of lips.

Cheek plumper, also known as the cheek lifting appliance is basically prostheses for supporting and lifting the cheek to provide required support and esthetic that will increase the self-esteem of the patient. This prosthesis is basically for supporting to the cheek to provide a youthful appearance. A cheek plumper can be of two types: Detachable and Undetachable. It has been seen that undetachable cheek plumper have some limitations like increased weight which could hamper retention of the maxillary complete denture and makes it difficult to insert. Moreover, it cannot be used in patients with limited mouth opening. To overcome the demerits of conventional undetectable, detachable cheek plumper has been tried that has proven more beneficial.

A 55 year old male patient came to the Department of Prosthodontics in Dasmesh Dental College, Faridkot with the chief complaint of missing teeth. On examination patient had completely edentulous upper and lower arches. Intraoral examination did not reveal any significant changes than the normal. Extra oral examination revealed slumped cheeks (Fig: 1). It was noticed that the patient was socially demoralized and unhappy due to esthetic problems of sunken and sagging of cheeks. During case history examination it was revealed that he was edentulous for past 6 years and was not wearing any complete denture prosthesis since then. Patient desired a prosthesis which would make his face look fuller and healthier.

Maxillary and mandibular impressions were made using Impression compound. Trays were fabricated using autopolymerising acrylic resin. Border moulding was done using Low fusing impression compound and wash impressions were made with zinc oxide eugenol paste. Wax relines were recorded. For try in appointment waxed denture were first tried for occlusion and esthetics. Wax template for cheek plumper were attached to the maxillary denture in the distobuccal region and were adjusted accordingly to give patient a fuller appearance. After taking patient consent, the waxed plumper was separated from trial denture.
During denture try in appointment, cheek plumper were made as a portion in the wax. These plumpers could be attached to the trial denture with the help of magnets. These plumpers were located at the cervical aspect between the first premolar to first molar. The magnets were placed inside the wax pattern and tried and adjusted in the patient’s mouth (Fig: 2). The cheek plumpers were superficially attached to the buccal surfaces on the right and left side of the maxillary denture base and later magnets were placed (Fig 3). The amount of thickness was determined by visualizing the patients face and assessing the amount of fullness required without hampering the function of the denture. Keeping in account the coronoid process of the mandible the cheek plumpers were tapered off from the posterior aspect so as not to hinder during mouth opening movements of the patient (Fig 4). The patient was quite happy with the final esthetic outcome (Fig: 5)

Figures

![Fig 1: Pre-Operative](image1)

![Fig 2](image2)

![Fig 3](image3)

![Fig 4: In-Occlusion](image4)

![Fig 5: Pre-operative Vs Post-operative](image5)

Discussion
Denture esthetics have advanced ahead moer than mere selection of teeth on the factors of from, shape, color, arrangement and sex, it is more of harmonization of artificial with natural. Sequelae of advanced aging is tissue atrophy, folds and creases of face become exaggerated which is due to loss of support of alveolar bone and teeth in particular leading to collapse of lower third of face. There is deepening of nasio labial fold, drooping of corner of mouth, loss of vermilion border, and depression of lips exaggerated wrinkling. Teeth loss in posterior region results in loss of support to cheeks which tend to move medially to move laterally expanding tongue.

Corrections of slumping of cheeks can be accomplished by various methods like reconstructive plastic surgery, botulinum toxin in the facial muscles and different types of prostheses.

Quick short term results can be enhanced by using non-surgical injectable fillers like Botulinum Toxin-A, but long term results are awaited.

To overcome the demerits of conventional cheek plumpers this innovative intraoral detachable magnet retained cheek plumpers provided multiple advantages including smaller size easy to insert in two separate portions, easily detachable providing patient the allowance of its use which in turn reduces the chances of muscle fatigue and most importantly maintenance of the appliance becomes easier.

References