Magnet retained cheek plumpers in complete denture patient
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ABSTRACT
Complete Denture is an artificial appliance which restores natural functions and esthetics caused by loss of natural teeth. Magnet retained cheek plumper help to enhance facial appearance by supporting the slumped cheeks. This paper reports an innovative technique of plumping the cheeks using cheek-plumper which are attached to the conventional complete denture, using magnets.

Key Words: Complete Denture; Cheek Plumbers; Esthetic

Introduction
Complete Denture is an artificial appliance which restores all the lost natural teeth in an edentulous mouth and restores the mastication, phonetics and esthetics. The first objective of complete denture prosthesis is mastication. Second objective is restoration of the esthetics, concerned with the artistic phase of the prosthesis. It relates to the ability of the prosthesis to construct or create the natural looking substitutes for the lost natural alveolar processes and teeth and to reproduce by artistic sense and skillful technique to restore the lost facial contour as well. This paper reports an innovative technique of plumping the cheeks using cheek-plumper which are attached to the conventional complete denture, using magnets.

Case Report
A 50-year-old male patient with no history of trauma presented to the dental clinic for complete dentures. He was edentulous for a period of two years. His prior concern for the denture was functional purpose but in addition he also insisted on improving his esthetics. On examination one of the major finding was poor esthetics, unsupported oral musculature and slumped cheeks (Figure 1). Intra oral finding revealed resorbed maxillary and mandibular ridges. The patient needed complete dentures with some form of cheek support. Based on patient’s needs a treatment plan was formulated. The ridges were resorbed precluded and the use of conventional cheek plumper as the weight of the prosthesis would result in loss of retention and stability of the maxillary denture with buccal extension to support the cheeks. The new design was to support the cheeks as well as not add to the weight of the prosthesis and not hinder the insertion and removal of the prosthesis. Upper and lower impressions were made using the admix impression technique using elastomeric light body as the final impression material. The occlusal scheme was decided keeping in mind need for decreased trauma to the lower ridge and esthetics. Hence maxillary anatomic teeth were used for the purpose of esthetics. These occluded with lower non-anatomic teeth to decrease transfer of harmful stresses to the resorbed lower ridge.

At the try-in stage, cheek plumper was made in wax as separate portions on the buccal surface of the complete trial denture. They were superficially attached to the buccal surfaces on the right and left side and tried in the mouth to determine the amount of desired cheek support appropriate for comfort, function and esthetic. Once this was determined, they were again separated from the complete denture and hollowed from the inside. Clinical magnets being beyond the affordability of the patient, a decision was made to use stereo/radio magnets that are known for their powerful magnetic attraction. The chances of corrosion and loss of magnetic properties were explained to the patient. Magnets were then placed into each of the hollowed buccal extension. Corresponding to this buccal extension, hollowed cavities were made on the buccal surface of the denture on the right and left side approximately in the cervical region of 2nd premolar and molars. Magnets were placed in these cavities taking care to align the poles properly with the magnets in the buccal extension of the respective side to allow strong attractive forces between magnet in the polished buccal surface of the and intaglio surface of the buccal Considering the high corrosion potential of magnets, they were encased in steel casing within buccal polished surface of the dentiure. After inserting the complete denture buccal supports on either side which have been engraved as L and R for convenience is inserted. (Figure 2, Figure 3). Once inserted into the mouth they go and snap into proper position on account of the magnetic forces. Patient was satisfied with his appearance after insertion of prosthesis and the buccal support of either side (Figure 4 and Figure 5).

Discussion
In order to mimic the fullness of the cheeks, a cheek plumper is often used and known as the cheek lifting appliance. It is variously cited in literature for providing support to the cheek wherever and whenever deficient. This prosthesis is basically for supporting and plumping the cheek to provide a youthful appearance. It is especially useful in young patients who have lost all their teeth and part of the maxillary bone as a result of a traumatic injury. Its use in Maxillofacial Prosthodontics is well documented. However it can also be used in patients who have an unusually excessive slumping of the cheeks as a result of teeth loss. A Conventional cheek plumper would be a part of the complete maxillary denture prosthesis forming single unit prosthesis with extensions on either side in the region of the polished buccal surfaces of the denture and are continuous with the rest of the denture.

Disadvantages of conventional cheek plumbers: The conventional cheek plumper if not made hollow could add excessive weight to the upper denture thus bringing it down by force...
of gravity. The buccal extension could interfere with masseter muscle and the coronoid process of the mandible and hence destabilize the upper denture especially during eating. The extensions could result in muscle fatigue and the only way to relieve it would be for the patient to remove the upper denture which might not always be desirable. The excessive medio-lateral width of the denture in the region of the cheek plumper could result in difficulty in inserting the denture and this would be more of a problem for patients with smaller mouth opening.

Advantages of magnet retained cheek plumpers are as follows. The magnets have a small size and hence can be placed within the denture and the cheek plumper without being obtrusive to either and produce strong attractive forces between the hollow plumper portion and the steel encased magnet within the buccal tissue surface of the denture. It can be introduced in the mouth after the insertion of the denture as two separate portions each of which are marked for convenience. It can be removed from the mouth during eating and when experiencing excessive muscle fatigue. It allows for ease of placement and cleaning. Automatic reseating.4

Disadvantages of magnet retained cheek plumpers are, poor corrosion resistance, alleged harmful effects of magnetic field on the health of the oral tissues and loss of magnetic property over a period of time and hence requiring frequent replacement.5

Conclusion
In conclusion by giving the patient magnet retained cheek plumpers the authors made an attempt to restore cheek fullness to the extent that comfort and function would permit and boost the self-esteem of the patient by improving his appearance.

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References

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