Treatment of Recessed Gingiva by Gum Veneer

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Abstract: Dramatic aesthetic results have been obtained with flexible silicone gingival mask which can be used to correct deformities remaining after destructive periodontal inflammation has been controlled. The silicone mask may also be used as an interim measure to improve the appearance of anterior crowns after initial periodontal therapy to allow time for healing & establishment of periodontal stability. A simple two stage impression technique is followed to produce comfortable & accurately fitting masks, which are very stable during use. Virtually no problems have been encountered.

Key Words: Aggressive periodontitis, Gingival deformities, Flexible gingival mask, Initial periodontal therapy

Date of Submission: 18-11-2019
Date of Acceptance: 04-12-2019

I. Introduction

GUM VENEERS/ party gums have historically been used to replace lost gingival tissue or recessed tissue, when other methods (e.g., surgery or regenerative procedures) were considered unpredictable or next to impossible. Gum veneers largely replace the tissue volumes easily. This prosthesis take several forms and shapes, various authors have described their uses and methods of construction.1-9

Advanced loss of periodontal support in the maxillary anterior area presents special challenges to the prosthetic dentistry. the problem associated with this condition is open interdental space, black triangle and long clinical crown. phonetic specially linguoalveolar and labiodental consonant are affected the most.

It may be used to replace tissue lost through surgical gingival procedures, trauma, recession, ridge or traumatic tooth extraction. From a prosthetic point of view, restoration of these areas can be accomplished with either fixed or removable prostheses. This prosthesis can be used to cover exposed root and interdental embrasures, to prevent food lodgement complaints and improve esthetic and phonetics of patients.

Materials used for gum prostheses include pink self cure and heat-cured acrylics, thermoplastic acrylics, porcelains, composite resins and, as well as silicone based soft materials. This paper presents a case of Millers class III gingival recession in which a flexible silicon gingival prosthesis is used to replace gingival soft tissue loss.

II. Case Report

A 30-year-old woman with Millers class III gingival recession, who had recently undergone oral prophylaxis to the maxillary teeth presented to the department. The scaling improved her periodontal condition but left the patient with a significant loss of papillae (Figs. 1). The patient was not happy and satisfied with the unesthetic appearance of the “elongated teeth.” Then decision was made to fabricate a removable prosthesis according to patients economical condition, which will cover the black triangles and spaces between the anterior teeth

Procedure: Firstly palatal embrasures are slightly blocked followed by diagnostic alginate impression (Fig. 2). A labial acrylic custom tray with double spacer wax was then fabricated on a diagnostic cast. Tray was located on buccal cusp tips & incisal edges only & extended in the labial sulcus without overextension, to create an occlusal stop and good peripheral seal. (Fig. 3). Silicone putty barrier was formed on the palatal aspects of teeth to be treated, to prevent impression material from flowing out of palatal aspect of the embrasures, (Fig. 4). Then with medium body silicon impression material (monophase), impression was taken (Fig. 5) & poured in class III dental stone (kalabhai). Proposed extensions of the veneer were marked on the working model after assessing patients lip line (Fig. 6). Veneer was waxed up on the model till canine distal most portion bilaterally & tried in the the patient’s mouth. After patients satisfaction, try-in wax up was reseated on working model (Fig. 7). Model is then submerged in shallow half of the flask using dental plaster. Reverse indentation is formed in dental stone to allow for high pressure on closure (70 psi). Put the flask in boiling water for 5-7 min. Separate the 2 parts of flask and remove hot wax with boiled water and let it dry and cool. two coats of separating media were applied. Heat cure material was packed in the dough stage. When flask was finally closed it was heated in a ordinary water bath beginning from room temperature, until reaching 72 degree, lasting for 2 hours, then the
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temperature is raised to boiling for another 1 hour. On completion of curing, veneer was gently removed from the flask & trimmed using a new sharp scalpel blade with care to avoid fracture. Veneer was tried in patient’s mouth & trimmed slightly to remove excess. Two gum veneer were made from the same impression & both were checked for accurate fit (Figs. 8 & 9). Patient was shown how to insert & remove the masks. Veneer were checked regularly at each recall visits with particular interest in plaque control & cleanliness. Frequent drinking of tea, coffee, & wine were discouraged. The maintenance care and oral hygiene guidelines was given to the patients.

III. Discussion

Gingival defects may be treated with surgical or prosthetic approaches and with successful surgical treatment, the result mimics the original gingival contours. Such treatments include minor procedures to rehab papillae and grafting procedures that may involve not only soft-tissue but also bone augmentation to support the soft tissue. When small volumes of tissue are being reconstructed this method is a good choice of option but not for large volume of tissue. The surgical costs, healing time, discomfort and unpredictability make this method unpopular. Prosthetic replacement, with acrylics, composite resins, porcelains and silicones, is a more predictable approach and is cost effective. It is especially useful when a larger amount of tissue needs replacement. Ideal gingival contours can be waxed, processed and then colored to match the surrounding tissue. The patient need not to undergo any type of surgical procedures and receives an aesthetically pleasing, functional restoration. It is possible to show the patient a waxed-up or even take a try-in prosthesis directly to the mouth for evaluation before any initiation of significant treatment. 3,5,6

IV. Conclusion

Cosmetic benefit of gingival mask has enabled patient to smile and speech with confidence. It is easier to create an ideal contour with removable prosthodontics and minimal efforts and cost is required to provide these patients with great sense of psychological satisfaction. Missing tissue can be replaced without disturbing the other tissues.