

# PROSTHETIC MANAGEMENT OF GINGIVAL AESTHETICS - A CASE REPORT

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## Abstract

*Gingival replacement prostheses have been used to replace lost tissue when other methods like surgery or regenerative procedures were considered unpredictable or unfeasible. With this method, large tissue volumes are easily substituted. Gingival prostheses take several forms. This article presents a case of gingival recession successfully managed by acrylic gingival veneer.*

**Keywords:** Acrylic, Embrasure, Gingival recess

## Introduction

A gratifying smile is an assembly of various components. Dental esthetics is based not only on the "white component" of the restoration but also on the "pink component.". The black triangles that appear as a result of gingival recession will deform a pleasant smile. Gingival replacement prostheses have historically been used to replace lost tissue when other methods like surgery or regenerative procedures were considered unpredictable or unfeasible. With this method, large tissue volumes are easily substituted. Gingival prostheses take several forms, and various authors have described their uses and methods of construction. [1-9] Periodontal attachment loss in the maxillary anterior region can often lead to esthetic and

functional clinical problems including imbalance in the smile and elongated clinical crowns, visible interdental embrasures, and altered linguoalveolar- labiodental consonant production. From a prosthodontic point of view, restoration of these areas can be accomplished with either fixed or removable prostheses. Materials used for gingival prostheses include chemically cured and heat-cured acrylics, porcelains, composite resins and thermoplastic acrylics, as well as silicone-based soft materials. Several surgical and nonsurgical approaches have been endeavored but complete and predictable restoration of lost interdental papillae remains one of the prime challenges in esthetic dentistry. An acrylic resin gingival veneer is an easily fabricated, economical, and practical device to optimize the esthetic and functional outcome in these special situations. This article presents a case of gingival recession successfully managed by acrylic gingival veneer.

## Case Report:

A 46-year-old female patient was referred from the department of periodontics for the management of dark triangles which caused significant esthetic problem to the patient. She had recently undergone gingival surgery to the maxillary teeth. The surgery improved her periodontal condition but left the patient with a considerable loss of papillae. The patient was very unhappy with the

esthetic appearance of the "elongated teeth." So, in the department of Prosthodontics, government dental college, Kottayam, the decision was made to fabricate a removable chemically cured acrylic prosthesis to close the spaces between the anterior teeth. A buccal approach was used to create the master impression, which duplicated the inter proximal detail without tearing the impression upon removal from the mouth. The lingual embrasures were blocked out with utility wax, and a custom tray was used to support the

addition silicone impression material. The impression was poured in type IV die stone, and a gingival prosthesis was waxed up and processed in chemically-cured acrylic resin. Retention was achieved with minor inter proximal undercuts as well as undercuts on the distal surfaces of the cuspids. The prosthesis was extremely thin and had enough flexibility to engage these undercuts. The prosthesis was extended up to the mesial aspects of first premolars bilaterally. This seemed to be necessary considering the exposure zone



Figure 1: Pre treatment Intra oral view



Figure 2: Post treatment Intraoral view



Figure 3: Pretreatment frontal view



Figure 4: Posttreatment frontal view

of patient's smile. The distal most portions of the prosthesis were thinned out in order to be merged with natural gingival tissues. The patient found the prosthesis very comfortable and appreciated her new smile.

## Discussion:

Gingival deficiencies can be managed with surgical or prosthetic approaches. With successful surgical treatment, the result mimics the original tissue contours. Such treatments include minor procedures to rebuild gingival papillae and grafting procedures that may involve not only soft-tissue manipulation but also bone augmentation to support the soft tissue. It is possible to create esthetically pleasing and anatomically acceptable tissue contours when small volumes of tissue are being reconstructed, but this method is unpredictable when a large volume of tissue is missing. The surgical costs, healing time, discomfort and unpredictability reduced the popularity of this method especially when economical prosthetic options are available. Prosthetic replacement, with acrylic resin, composite resin, porcelain or silicone, is a more predictable approach to replacing lost tissue architecture particularly in large gingival defects.

## Conclusion:

Loss of interdental papillae in maxillary anterior region can often lead to esthetic and phonetic clinical problems. In such a scenario, it becomes challenging for the dentist to provide optimum esthetic solution for the missing gingival tissues

and at the same time preserve health of the periodontium. Gingival veneers are easy to fabricate and inexpensive and offer predictable and satisfactory results in the management of lost interdental papillae. A clear understanding of the colour and form requirements is essential for the fabrication of gingival prosthesis and its acceptance by the patient. Understanding the various methods used to incorporate gingival prostheses into prosthodontics is vital to ensure that patients are offered all possible options at the outset of treatment planning.

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