

Gingival Veneer: A Novel Technique of Masking Gingival Recession

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ABSTRACT

One of the most distressing aspects of periodontitis is the unesthetic appearance of maxillary and mandibular anteriors. The elongation of the crowns due to root exposure and increased interdental spacing results in unesthetic appearance. Surgical procedures for gingival recession coverage do not have acceptable results in cases of severe gingival recession. So nonsurgical methods like gingival veneers should be considered as a treatment modality in such cases. This article aims to revisit the gingival veneer: its uses, advantages, disadvantages, and its fabrication. The case discussed here highlight clinical situation where the gingival veneer prosthesis helped in achieving optimum esthetics and patient satisfaction thus proving to be a feasible and simple treatment modality in certain clinical cases. This may offer a good interim solution for patients who may wish to have time to consider their options of more advanced and complex treatment.

Keywords: Chronic periodontitis, Esthetic, Interdenta papillae

CASE REPORT

A 37-year-old man with a non-contributory medical history presented with the chief complaint of bleeding gums and elongated upper front teeth. Periodontal assessment revealed increased probing depths ranging from 4 to 5 mm and gingival recession was average 2 mm throughout the dentition but 4-5 mm in maxillary anterior teeth [Table/Fig-1]. Radiographic examination demonstrated generalized horizontal bone loss in both arches. The diagnosis of chronic periodontitis was made after reviewing the clinical and radiographic findings. Complete preliminary periodontal treatment was performed. The treatment required to manage this condition included oral hygiene instructions, supragingival plaque removal, and subgingival scaling and root planing using conventional hand instruments. After periodontal treatment, the patient maintained good plaque control to a level. At three months following nonsurgical periodontal treatment, probing depths were less than 4 mm. However, despite an improved periodontal condition, the patient exhibited generalized moderate-to-severe gingival recession average 3-4 mm with an unsatisfactory aesthetic result and increased teeth sensitivity [Table/Fig-2].

METHOD

The gingival condition was not suitable for treatment with surgical root coverage techniques and moreover patient was concern for esthetic, the decision was made to fabricate a gingival veneer in the upper arch. The patient was explained about the treatment and a written informed consent was obtained. Maxillary alginate impression was made and cast was prepared using die stone [Table/Fig-3]. A wax pattern was prepared involving the undercuts. Thus, the interdental open gingival embrasures were accurately reproduced [Table/Fig-4]. The gingival veneer was fabricated from heat curing acrylic resin [Table/Fig-5-8]. Finally, the gingival veneer was adapted to the patient's maxillary teeth during an insertion visit [Table/Fig-9]. Adequate retention was accomplished due to engagement of the veneer into the interdental open gingival embrasures. Patient was instructed to clean veneer each day. Also instructions were given to clean it every time after having food. The veneer was to be stored in water during night to prevent warpage of the prosthesis. This would also ensure adequate rest to the



[Table/Fig-1]: Pre-scaling photograph showing gingival recession



[Table/Fig-2]: Clinical photograph view after scaling and root planing

gingival tissues. The importance of persistent plaque control in the ongoing prevention of both caries and periodontal disease was emphasized. The veneer was well tolerated by the patient, and satisfactory aesthetics were also attained [Table/Fig-10].



[Table/Fig-3]: Maxillary cast



[Table/Fig-7]: Acrylic veneer try-in



[Table/Fig-4]: Wax pattern of veneer prepared on the cast



[Table/Fig-8]: Stains incorporated in resin during processing to enhance characterization & esthetics to provide a natural look



[Table/Fig-5]: Acrylic wax pattern try-in



[Table/Fig-9]: Frontal view of the gingival veneer in place showing good adaptation on teeth and improved aesthetics



[Table/Fig-6]: Frenum relief in the acrylic veneer



[Table/Fig-10]: Frontal view of the gingival veneer in situ

DISCUSSION

Gingival recession can stem from a wide variety of causes. It is a significant condition that leads to functional, esthetic, and phonetic complications. A number of factors have been proposed to influence the development of Gingival recession, including abnormal tooth positioning the arch, plaque-induced inflammation, traumatic tooth-brushing, orthodontic treatment, and restorative procedures [1].

Gingival recession may be treated by periodontal plastic surgery or nonsurgical approaches. Although many surgical procedures have been proposed for augmentation of soft tissue structures and reconstruction of the interdental papillae [2,3], predictable results may not be routinely achievable. In cases in which all methods of hard and soft tissue augmentation have failed, a nonsurgical approach by means of a gingival veneer can be utilized for replacement of large soft- and hard-tissue deficits. These devices may be used to correct deformities remaining after periodontal disease, various surgical procedures, and trauma or ridge resorption. Other options for replacement of missing gingival tissues include gingival flanges retained by precision attachments, and fixed prostheses with gingival-colored ceramics [4,5].

This article has presented clinical case using the gingival veneer to create an aesthetic replacement for missing soft-tissues associated with non-surgical treatment of periodontal disease. The gingival veneer is proved to be a beneficial treatment modality for severe gingival defects remaining after periodontal treatment. Aside from improved aesthetics, this device was effective in solving phonetic problems. The veneer is easy to fabricate, comfortable to wear, and resistant to mechanical pressure. However, apparent disadvantages of this device are difficulty in obtaining retention, potential for fracture during cleaning procedures, and staining and plaque accumulation.

The discoloration of the gingival veneer will be accelerated through heavy smoking and the frequent consumption of tea, coffee, and wine. Therefore, it is essential that the patient is instructed regarding proper care of the gingival veneer and oral hygiene maintenance. It should be emphasized that it is essential to eliminate plaque accumulation and periodontal inflammation prior to treatment with a gingival veneer. Another factor to consider is the physical ability of the patient to remove and replace the veneer. The gingival veneer is contraindicated in patients with known allergy to heat cure acrylic, high caries activity and acute gingival lesions.

CONCLUSION

This paper has presented method of masking gingival recession by using gingival veneer. Periodontal esthetics is inseparable part of dental practice and the dentist should be well conservant about it. A clear understanding of the aesthetic, functional need and compliance of patient along with sound knowledge of materials to be used is essential to fabrication of the gingival veneer and its acceptance by the patient.

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