

Flexible Gingival Veneer: A Quick Cosmetic Solution to Root Coverage - A Case Report

A Moldi, V Gala, V A Patil, M H Desai, G R Giri, A P Rathod

Citation

A Moldi, V Gala, V A Patil, M H Desai, G R Giri, A P Rathod. *Flexible Gingival Veneer: A Quick Cosmetic Solution to Root Coverage - A Case Report*. The Internet Journal of Dental Science. 2014 Volume 13 Number 1.

Abstract

Background and Aim: Gingival recession is an unaesthetic result of periodontal disease. The surgical treatment for root coverage is costly, requires a long healing time with unpredictable results at times. The gingival veneer is a useful cosmetic treatment option after the periodontal disease is under control.

Materials and Methods: The patient reported with chief complaints of impaired gingival aesthetics, food lodgement and tooth sensitivity in the maxillary anterior region. On completion of thorough periodontal therapy, a flexible gingival veneer made with a silicone based permanent soft liner was fabricated.

Results: The flexible gingival veneer, was successful in satisfying the patient's cosmetic and functional problems.

Conclusion: Flexible gingival veneer can serve as a quick cosmetic alternative in patients with impaired gingival esthetics.

INTRODUCTION

The preservation or reproduction of optimal mucogingival aesthetics can be difficult to achieve from both a surgical and prosthetic perspective. An increasing patient and clinician awareness of the importance of gingival aesthetics has resulted in the development of both surgical and prosthetic techniques aimed at improving or maintaining these aesthetic characteristics (1, 2). Regenerative procedures or gingival replacement prosthesis are different alternatives to replace the lost gingival tissue (3, 4). The surgical treatment for root coverage is costly, requires a long healing time and the results are often unpredictable (5, 6).

The gingival veneer is a very useful treatment option to correct the gingival recession after the periodontal disease is under control. Materials used for gingival prostheses include pink auto - cure and heat-cure acrylics, porcelains, composite resins and thermoplastic acrylics, as well as silicone-based soft materials (7-9). Gingival epithesis is a removable prosthesis that aesthetically and functionally replaces lost tissues. They are classified into non flexible gingival epithesis and flexible gingival epithesis. The advantages of flexible gingival epithesis over the nonflexible gingival epithesis are better aesthetics, increased compatibility with the tissues and comfort.

The following case report describes the fabrication of a

flexible gingival veneer made with a silicone based soft liner.

MATERIALS AND METHODS

A 38 year old male, reported to the Department of Periodontics, HKES's SN Institute of Dental Sciences and Research, Gulbarga, Karnataka, India with a complain of compromised aesthetics because of gingival recession. He also had complaints of sensitivity of teeth and food lodgement in the maxillary anterior region. On examination, generalized Miller's Class II recession was seen with generalized pocket formation.

The periodontal therapy included scaling, root planning and full mouth periodontal flap surgery. After 3 months of regular follow up, examination revealed that the gingiva was well maintained and the periodontal disease progression was under control (Figure 1). As the surgical procedure for root coverage was unpredictable and required a long healing time, hence it was decided to fabricate a removable gingival veneer for root coverage. The patient was referred to the Department of Prosthodontics, HKES's SN Institute of Dental Sciences and Research for fabrication of gingival veneer.

Figure 1

Generalized recession.



Figure 2

Impression made with polyether regular body.



After examining the case, a flexible gingival prosthesis was planned for the patient. A special tray was fabricated for taking the impression of the labial surfaces of the maxillary dentition and the labial vestibule as well. The palatal open embrasures were blocked out with modeling wax (Modelling Wax No 2, Hindustan Dental Products, India) so that the impression can be retrieved easily. Then the impression was made using special tray with polyether regular body (Impregum, 3M ESPE) which captured the interproximal details accurately and the impression could be easily retrieved because of palatal block out (Figure 2). A cast was made using dental stone Type III (Kalabhai Dental stone, India). Then the wax up was done for the gingival veneer with modeling wax (Figure 3). Flasking (Figure 4) and dewaxing was done (Figure 5) followed by packing done with Silicone based soft permanent liner (Ufi Gel-P, Voco, Germany). The prosthesis after retrieving was carefully cut with scissors and excess material was removed (Figure 6).

Figure 3

Wax up for the gingival veneer.



Figure 4

Flasking.



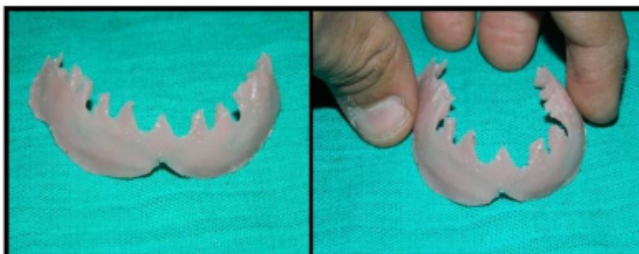
Figure 5

Dewaxing.



Figures 6 and 7

Flexible gingival veneer.



On insertion, the gingival veneer could be easily placed as it was easily retained in the embrasures because of its flexibility (Figure 7). The follow up was done after a week and patient reported that the prosthesis was comfortable,

easy to use and retentive.

DISCUSSION

The gingival veneers are indicated in cases with gingival recession where the periodontal disease is well controlled and the oral hygiene maintenance by the patient is also satisfactory. The contraindications for the gingival veneers are poor or unstable periodontal health, poor oral hygiene, high caries activity and heavy smokers. Materials used for gingival prostheses include pink auto-cure and heat-cure acrylics, porcelains, composite resins, thermoplastic acrylics and silicone-based soft materials (7-9). As the non-flexible veneers are difficult to be extended beyond the canines because of the undercuts causing friction and further damage to the delicate gingival tissue, hence soft and flexible silicone is an ideal solution to such problems. It does not damage the tissues and because of its flexibility it can be extended as far as the molars if needed. The patient also appreciates a more "natural" feel without any discomfort (flexible gingival veneer). The flexible silicone gingival epithesis has been shown to support the lip and resist food entrapment (10). Furthermore, it may also be effective in solving phonetic problems (11). It should be emphasized that it is essential to eliminate plaque accumulation and periodontal inflammation prior to treatment with a silicone gingival epithesis. Another factor to consider is the physical ability of the patient to remove and replace the epithesis (12).

The material used (silicone) in this case report has the following advantages (13):

Excellent adaptation to fine details for a precise fit of the prosthesis.

Biocompatible (methacrylate free).

Neutral odour and taste.

Stable, aesthetic colour with chameleon effect.

Resistant against standard denture cleansers.

User-friendly and economical.

Kapari et al (1991), examined the changes in physical properties of the flexible gingival epithesis over time and concluded that the device can be used without serious problems for a period of 12 months. Furthermore, testing for *C.albicans* was performed and remained negative throughout the study period (14).

In contrast, Muller et al (1985) reported infections of *C. albicans* in patients wearing gingival epithesis. However, since *C. albicans* was also observed on the dorsum of the

tongue, the possibility exists that a candida infection was already present prior to insertion of the gingival epithesis (15). In the present case, patients were inspected for potential infections with *C. albicans* over time and all such tests remained negative.

CONCLUSION

The removable gingival prosthesis is a good treatment option in advanced tissue loss, achieving aesthetic results and patient satisfaction. It is a quick and economical alternative solution for root coverage as compared to surgical methods which might be unpredictable and take long time for completion of treatment.

References

1. Işıksal E, Hazar S, Akyalçin S. Smile esthetics: perception and comparison of treated and untreated smiles. *Am J Orthod Dentofacial Orthop.* 2006;129:8–16.
2. LaVacca M I, Tarnow D P, Cisneros G J. Interdental papilla length and the perception of aesthetics. *Pract Proced Aesthet Dent.* 2005;17:405–12.
3. Oates T, Robinson M, Gunsolley J. Surgical therapies for the treatment of gingival recession - A systematic review. *Ann Periodontol.* 2003;8:303-20.
4. Rocuzzo M, Bunino M, Needleman I, Sanz M. Periodontal plastic surgery for treatment of localized gingival recessions: A systematic review. *J Clin Periodontol.* 2002;29:178 -94.
5. Mekayarajjnanoth T, Kiat-amnuay S, Sooksuntisakoonchai N, Salinas TJ. The functional and esthetic deficit replaced with an acrylic resin gingival veneer. *Quintessence Int.* 2002;33:91-4.
6. Hannon SM, Colvin CJ, Zurek DJ. Selective use of gingival -toned ceramics: Case reports. *Quintessence Int.* 1994;25:233-8.
7. Patil S, Prabhu V, Danane NR. Gingival veneer: Mask the unesthetic. *J Indian Soc Periodontol.* 2011;15(3):284-7.
8. Vinnakota DN, Akula SR, Kukunoor S, Mempoally H. Diverse modalities of gingival replacement: A report of three cases. *Contemp Clin Dent.* 2012;3(3):320-2.
9. Barzilay I, Tamblyn I. Gingival prostheses — A review. *J Can Dent Assoc.* 2003;69:74-8.
10. Taylor TD. Fixed implant rehabilitation for the edentulous maxilla. *Int J Oral Maxillofac Implants.* 1991;6:329-37.
11. Worthington P, Bolender CL, Taylor TD. The swedish system of osseointegrated implants: problems and complications encountered during a 4-year trial period. *Int J Oral Maxillofac Implants.* 1987;2:77-84.
12. Kasaj A, Willershausen B, Zafiropoulos GG. Flexible gingival epithesis: treatment of recession defects. *Dent Today.* 2010;29(1):108.
13. http://www.voco.com/en/products/_products/ufi_gel_p/index.html
14. Kapari D, Tsalikis L, Lehmann KM, Flores-de-Jacoby L. Changes in the physical properties of gingivamoll flexible gingival epithesis. *Dtsch Zahnarztl Z.* 1991;46(7):503-5.
15. Müller HP, Flores-de-Jacoby L. The effect of flexible gingival prosthesis on the marginal periodontium and the composition of the subgingival microflora. *Dtsch Zahnarztl Z.* 1985;40:783-7.

Author Information

Arvind Moldi, Professor and Head

Dept. of Prosthodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India
amoldi@hotmail.com

Vimal Gala, Former Post Graduate Student

Dept. of Prosthodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India

Veena A. Patil, Professor and Head

Dept. of Periodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India

Manthan H. Desai, Post Graduate Student

Dept. of Periodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India

Girija R. Giri, Assistant Professor

Department of Periodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India

Aradhana P. Rathod, Post Graduate Student

Dept. of Prosthodontics, HKE's SN Institute of Dental Sciences and Research
Gulbarga, Karnataka, India