

‘Gingival Porcelain’: Successful Restoration of Lost Smile- Case Report

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Abstract: *Gingival replacement is often a component of comprehensive prosthodontics. A fixed prosthesis gives the patient significant comfort and peace of mind as well as self confidence. Gingival pink porcelain is easy to fabricate in fixed prosthesis and offer predictable and satisfactory results in the management of lost interdental papillae. The case discussed here highlights a clinical situation where gingival porcelain helped in achieving optimum esthetics and patient satisfaction which is simple treatment modality.*

Keywords: *Esthetics, Gingival porcelain, Gingival replacement, Periodontal surgery Prosthetic design.*

I. Introduction

Gingival veneer is defined as prosthesis worn in the labial aspect of the dental arch which aims to restore the mucogingival contour and esthetics in areas where periodontal tissue are deficient. Tissue replacement may be used to replace tissue lost through surgical gingival procedure, trauma, ridge resorption or traumatic tooth extraction. [1] From prosthodontic point of view, restoration of these areas can be accomplished with either fixed or removal prosthesis. [2] Gingival replacement with artificial substitute is more helpful in managing severe gingival recession situation. Synonym of gingival veneer are flange prosthesis, gingival mask, gingival veneer prosthesis, gingival replacement and artificial gingiva. [3] Gingival deficient may be treated with surgical or prosthetic approaches with successful surgical treatment, the results mimics the original tissue contours. Such treatment includes minor procedures to rebuild papillae and grafting procedures that may involve not only soft tissue manipulation but also bone augmentation which supports the soft tissue. Surgical cost, healing time, discomfort and unpredictability make this choice unpopular. [4, 5]

In this case report it is combine efforts of surgical procedure and prosthetic approach for reconstruction of gingival defect.

II. ii. Case Report

A 45 year old female patient reported to department of prosthodontics, Chhattisgarh dental college and research institute, Rajnandgaon with chief complaint of missing teeth on lower front region of jaw(Fig.1). She was diagnosed as localised periodontitis. She had undergone periodontal flap surgery. Surgical correction to cover the gingival recession and length of crown was not possible; hence the decision to fabricate gingival porcelain was established from canine to canine region.

Fabrication of lower arch was made using irreversible hydrocolloid impression material. Diagnostic wax pattern fabrication was done to ensure the patient satisfaction. Silicon index was made over wax pattern to maintain the contour, shape and size of final prosthesis. For fixed prosthesis conservative tooth preparation (Fig.2) was done with both the canines (33, 43). After proper gingival retraction final prosthesis was made with light body impression material. Cast was obtained and a wax up was carried out from canine to canine in the usual manner as in metal-ceramic restoration.

After finishing of ceramic contour of gingiva was marked (Fig. 3) and pink porcelain (Fig.4) was built up to mimic the lost soft tissue and restore the crown length of the missing teeth to the ideal requirements.

III. Discussion

Surgical correction of periodontal defects prior to prosthetic reconstruction is most important and valuable procedures but better esthetic results have been achieved using gingival porcelain. This gingival porcelain not only improves esthetics but also restores the self confidence of the patient. [1]

Gingival prosthesis takes several forms and various authors described their uses and methods of construction. [4, 6,7] A clear understanding of the clinical requirements is essential before soft tissue replacement with either fixed or removable prosthesis is planned [8] A fixed prosthesis has many advantages such as patient’s comfort and self-confidence and cost effectiveness and in removable prosthesis main disadvantages are large volume of tissue can be replaced and hygiene maintainance is still feasible.[9]

In the present case the prosthesis helped to achieve esthetic results, decreased hypersensitivity, improved phonetics and provided patient with comfort.

IV. Conclusion

Dental esthetics is based not only on white components but also depends upon pink components. Better understanding of the colour and form requirements is essential to fabrication of the prosthesis and its acceptance by the patient.

Gingival pink porcelain is easy to fabricate in fixed prosthesis and offer predictable and satisfactory results in the management of lost interdental papillae.

References

- [1]. Sinha A, Madhavan S, Ravindra S, Bhat S. Gingival Veneer: Non esthetics to esthetic smile. IOSR journal of dental and medical science. 2014;13(11):26-9.
- [2]. Barzzilay I, Tamblyn. Gingival prosthesis- A review. Journal of the Canadian dental association 2003;69(2):74-8.
- [3]. Antony VV, Khan R. Gingival mask-Restoring the lost smile . IOSR journal of dental and medical science 2013;5(3):20-2.
- [4]. Shah A. Gingival veneer: Non –Invasive approach in the management of lost interdental papilla. Int J Dent Case Reports 2012;2(3):54-8.
- [5]. SA Mule, Dange SP, Khaikar AN, Vaidya SP. Gingival prosthesis: An aesthetics solution for a periodontically compromised patient – A case report. J Indian Dent Assoc 2011;5(5):652-3.
- [6]. Friedman MJ. Gingival masks: A simple prosthesis to improve the appearance of teeth. Compend Contin Educ Dent 2000;21(11):1008-10.
- [7]. Greene PR. The flexible gingival mask: an aesthetic solution in periodontal practice. Br Dent J 1998;184(11):536-4.
- [8]. Barzilay I, Tamblyn I. Gingival Prostheses- A review. J Can Dent Assoc 2003;69:74-8.
- [9]. Vinnakota DN, Akula SR, Kukunoor S, Mempally H. Diverse modalities of gingival replacement : A report of three cases. Contemporary Clinical Dentistry 2012;3:320-2.

Legends For Photographs



Figure 1. - Pre-Operative View



Figure 2. - Tooth preparation with both canines



Figure 3. - Metal ceramic bridge



Figure 4. - Gingival porcelain



Figure 5. – Post-Operative View