

An Alternate Treatment Approach to Gingival Recession - Gingival Colored Partial Porcelain Veneers – A Case Report

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Abstract: Gingival recession from the root surface is a great concern for many patients. Patients with high smile lines, uneven gingival margins and conspicuous root exposure may be self conscious about tissue recession. Here we present a case report of gingival recession in upper anterior teeth effectively managed by partial Gingival Porcelain Veneers.

Keywords: Gingival recession, hyper sensitivity, gingival coloured ceramic veneers

I. Introduction

Gingival recession is defined as the apical migration of the functional epithelium with exposure of root surfaces. Gingival recession caused by malposed teeth, vigorous teeth brushing, Loss of alveolar bone, periodontal diseases, defective restorations, abrasion, caries, abrasion, erosion and premature contacts. Gingival recession leads to hard and soft tissue loss, enlarged gingival embrasures, increased crown length, hypersensitivity and esthetic problems. Although extreme sensitivity to cold air and liquids may contribute to discomfort in patients with recession, ultimately rendering plaque removal difficult, leads to further loss of tooth structure. Optimal periodontal health of the dentition is essential for esthetic reconstruction¹. Recession of the narrow, deep and narrow, and shallow type readily lend themselves to complete root coverage by various gingival graft procedures such as pedicle², free gingiva or subepithelial connective tissue which are performed according to the type of recession. Although grafting technique has greatly improved, some patients may not be prepared to undergo such treatment if they have hyper sensitivity problem and their gingival recession is only esthetic. In such cases alternate esthetic treatment modality with less invasive approach is available. Recent advances in esthetic dental material and bonding technology have made this less invasive and conservative esthetic management of gingival recession made possible. This clinical report describes the alternative method of conservative esthetic management of gingival recession with gingival coloured partial porcelain veneers.

II. Case Report

A 48 year old male patient reported to the Department of Conservative dentistry, Tamilnadu Government Dental College and Hospital with complaint of esthetic problem accompanied by hypersensitivity in upper and lower anterior teeth. Intra oral examination reveals recession of gingiva (Figure-1) accompanied with abrasion present in the cervical region of the all anteriors and most of the posterior teeth exposing the root surfaces. All the teeth gave normal response by thermal and electric pulp test. Patient also had low lip line.



Figure: 1 Preoperative Picture



Figure: 2 Intra oral periapical radiograph

Intra oral periapical radiograph (Figure-2) reveals intact inter dental bone and laminadura in all anterior teeth. Patient advised to undergo gingival grafting procedures to correct his esthetic problem. But he did not accept this invasive procedure. So a comprehensive treatment plan was developed. 1. Patient first sent to the Department of Periodontia for oral prophylaxis. 2. To treat the abrasion defect on the upper anterior teeth with glass ionomer cement and replace the recessed gingiva with gingiva coloured, partial porcelain laminate veneers^{3,4}



Figure: 3 Diagnostic Waxing



Figure: 4 Preparations of Root Surfaces

Upper and lower impressions of teeth were taken and study model were prepared. A diagnostic waxing (Figure-3) was developed by covering the gingival area with pink wax to imitate the gingiva better to predict the definitive result. Gingival retraction cord was placed to retract the gingiva to place the gingival finish line. Root surfaces were prepared (Figure - 4) to provide adequate space for gingival ceramic veneer porcelains. 0.5mm labial reduction was done creating a chamfer cervical finish line using medium grid diamond chamfer bur. Impression taken with addition silicone impression material .Working model prepared and sent to the laboratory for processing of veneers.

After try in of the gingival veneer, the etched surfaces of the ceramic veneers were treated with sialanating agent⁵ which improve the bond to the luting composite. The prepared root surfaces were conditioned and bonding agent applied in a thin film and cured for 15 to 30 seconds in each root surface of upper anterior teeth. The veneers were luted with dual cure composite resin. Excessive resin cement was removed and polymerized.



Figure: 5 Processed Veneer



Figure: 6 Final Prosthesis

III. Discussion

Gingival defects may be treated with surgical or by prosthetic approaches. With Surgical treatment, the result mimics the original contours. It is possible to create esthetically and anatomically pleasing connective tissue contours when small volumes of tissues are being reconstructed, but these surgical methods are unpredictable when a large volume of tissue is missing. The surgical costs, healing time, discomfort and unpredictability make this choice unpopular. Prosthetic replacement with removable gingival prosthesis^{6,7}, pink coloured composite resin¹, pink coloured glass ionomer cement⁸, gum veneer either with porcelain⁸ or with silicone⁹ is a more predictable approach to replace the lost gingival architecture. Here for our patient we selected gingival partial ceramic veneers¹⁰ because porcelain veneers are biocompatible and it has good colour stabilization. It has nonporous surface which prevent plaque adherence better than composite resins. They have low thermal and electrical conductivity. They are therefore excellent electrical and thermal insulators. Have higher wear and abrasion resistance than pink coloured composite resin and pink coloured glass ionomer cement. It gives excellent esthetics and good marginal seal.

IV. Conclusion

Considering the minimal intervention dentistry it appears that the gingiva coloured partial porcelain laminate veneer is an effective alternative procedure to treat advanced gingival recession in achieving acceptable esthetic results and patient satisfaction.

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