

Case Report

A clinical case - Smile makeover with direct composite resin veneer

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ABSTRACT:

In recent years, direct composite veneer restorations, as a more aesthetic and more conservative treatment option, have been used in dentistry for correction of aesthetic problem of anterior teeth posed due to color, shape, position and structure. Direct composite veneer offers minimal preparation and more conservative treatment option than porcelain veneers. This article presents a case report of aesthetic management of anterior teeth using direct composite resin veneering with two-year follow-up showing acceptable outcome.

Keywords: Smile makeover, direct composite resin.

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INTRODUCTION

Aesthetic dentistry has become one of the integral part of dental practice. The goal for aesthetic dentistry should be bright, beautiful, but believable. (1) Most important factor in the restoration of anterior teeth is the re-establishment of aesthetic and functions. Non carious enamel defects such as enamel hypoplasia, enamel hypo calcification, localized enamel malformations and wear, rotations and simple malalignment, fluorosis, and discoloration of teeth due to trauma or tetracycline staining can be corrected conservatively by direct composite veneer or composite veneers followed by vital or non-vital bleaching as tooth bleaching as the sole treatment for discolored teeth may not provide a complete permanent aesthetic satisfaction. (2)

Other treatment modalities include porcelain veneers and indirect composite restorations but they require more removal of tooth structure and appointments and are expensive. (3)

Single appointment direct composite veneers allows the clinician to deliver a desirable esthetic restoration with the utmost clinical efficiency. It is most commonly utilized form of veneering. (4) Composite veneers are considered more conservative treatment than porcelain veneers. With the introduction of composites like microhybrid and nanohybrid composites, finishing and polishing of these restorations can rival that of porcelain.

Direct composite veneering is the treatment of choice when minimal invasion and maximum preservation of sound tooth structure is required when compared to indirect restorations. (5) Any alterations in the restoration if required can be made with relative ease to the satisfaction of the patient. Thus, direct composite resin restorations have become a good alternative for patients who require anterior esthetic rehabilitation. (6,7) Here we present a case report of aesthetic rehabilitation of anterior teeth in middle aged women with direct composites with follow-up of 2 years.

CASE REPORT

A 29 year old female patient reported to a private dental clinic for aesthetic rehabilitation. The patient was not satisfied with pitted and discolored appearance of her anterior teeth (Figure 1). Various treatment options were explained to the patient and the patient opted for direct composite veneering because of economic issues. The initial shades (A1 and A2) were selected with the help of VITA classical shade guide and conservative tooth preparation was done with a minimal chamfer given on facial surfaces. Tooth preparation was done with respect to upper anteriors i.e. right and left maxillary central incisors, lateral incisors and canines (Figure 2). The prepared surface was then etched with 37% phosphoric acid (3M Espe Scotchbond Universal Etchant) for 30 seconds and then rinsed for 20 seconds and then dried. A bonding agent (3M ESPE Single Bond Universal Adhesive) was applied for 10 seconds, extra bonding agent was removed and then light cured for 15 seconds. Composite (3M ESPE Filtek Z350 XT) of desired shade was placed in increments and then light cured for 20 seconds. Finishing and polishing was done with burs, sof-lex discs, rubber cups and discs, and diamond polishing pastes (Figure 3). Patient was recalled every 6 months to check for any discolorations or fracture of the restorations and patient was asked to follow proper oral hygiene practice. No discoloration or chipping of restoration was seen at 2 year recall and finishing and polishing was performed again at 2 year recall (Figure 4).



Figure 1: Pre -operative image showing pitted and discolored teeth



Figure 2: Image showing tooth preparation w.r.t. upper anteriors



Figure 3: Image showing finished and polished restorations



Figure 4: Follow – up after 2 year

DISCUSSION

Aesthetic dentistry has become a challenging job for our dental profession because of its increasing demand. The growing use of composites and other tooth colored restorative materials have made it evident. (8) Direct composite veneers have become the choice for aesthetic rehabilitation for discolored teeth. Direct composite veneer have provided the operator with better control over the restorative process and thus helping to make the final restoration with desired color and tooth morphology . Due to emergence of newer and improved composite resin formulation a new technical and artistic level has been reached. (9)

In this case the patient had severe fluorosis with pits and discoloration. The patient was explained about the various treatment options and the patient opted for direct composite veneers because it was minimally invasive, more conservative and also cost effective.

Direct composite veneers offer various advantages such as it is a chair side technique and it can be completed in only one appointment , it is minimally invasive, more conservative tooth preparation , simple and versatile application , no impression is required, minimal application time is needed, less expensive than lab-fabricated ceramic veneers , highly polished surface giving long-lasting, natural looking aesthetic clinical results.(10) Direct composite veneers can be finished and polished easily and can be repaired without any difficulty (2, 11)

CONCLUSION

Direct composite veneer have emerged to be a wonderful treatment option for patients who are not able to currently afford indirect porcelain veneers. Done with utmost care and precision and with proper selection of material, the clinician can deliver natural looking direct composite restoration in aesthetic zones.

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