

DIRECT FACETING IN COMPOSITE RESIN AS AN AESTHETIC SOLUTION FOR RESTORING SMILE HARMONY - CASE REPORT

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ABSTRACT

The concept of aesthetics is associated with beauty, which integrates the specific shape, contour, texture, and color of each individual. The demands of contemporary society have led to a significant increase in the search for aesthetic treatments. The role of the dental surgeon is of great importance in this context, as the subjectivity of well-being also relates to social, psychological, and cultural factors.

Objective: To report the clinical case of a patient who presented direct veneers on three anterior superior teeth that were unsatisfactory in terms of color and shape. After studying the clinical case, direct veneers with composite resin were indicated to restore the aesthetics of the teeth. **Case report:** The patient, ERRT, female, attended the UniEVANGÉLICA Dental Clinic complaining of “very ugly front teeth with yellow restorations.” The radiographic examination showed satisfactory endodontic treatment in tooth 12, with no periapical lesions. After planning the case, standard cavity preparation for veneers was performed during the restorative session, removing the unsatisfactory restorations. The restorative protocol was followed: modified absolute isolation with cyanoacrylate, acid conditioning, application of primer/adhesive, accommodation of resin layers, and light curing until the appropriate contour with vestibular convexity was achieved. In the next session, the final finishing and polishing of the composite resins were performed. **Conclusions:** The direct technique with composite resin is accessible and versatile, proving to be an excellent option for performing aesthetic corrections quickly, with excellent cost-benefit, clinical longevity, and ease of repair when necessary.

Keywords: Composite Resins. Dental Veneers. Dental Aesthetics. Smile.

INTRODUCTION

Aesthetics has occupied a place of great importance in contemporary dentistry, where increasingly demanding individuals seek "imperceptible" restorations with a natural appearance (ALVES, 2022; ZIMMER, 2024; LOPES DA COSTA, 2024). As a result, there has been a growing increase in aesthetic procedures, encouraging the evolution of restorative materials and the improvement of restorative techniques (LOPES, 2023).

The current standard of beauty, influenced by a consumerist culture and driven by the media (LOPES DA COSTA, 2024), establishes integration between color, shape, texture, and contour, linking physical, psychological, and social well-being with personal and professional success (ZIMMER, 2024). The smile is an important tool for self-image and self-esteem, and dental disharmony causes variations in patient behavior, developing a more introspective personality in the individual (ROCHA, 2021; REIS DE SOUSA, 2023).

There is a great concern with restoring dental aesthetics, which is why individuals seek a harmonious smile (LOPES DA COSTA, 2024). An excellent alternative for the aesthetic resolution of many clinical situations is restorative treatment with the use of composite resin, through partial or total direct veneers, which offer satisfactory clinical performance (LOPES, 2023). Direct veneers are restorative procedures that aim to restore the aesthetics, phonetics, and functionality of anterior teeth by covering the vestibular surface (ROCHA, 2021; ALVES, 2022; LOPES, 2023). The advantages include feasibility, excellent cost-benefit ratio, excellent aesthetic results, predictability, and longevity of clinical success (ROCHA, 2021; REIS DE SOUSA, 2023; LOPES, 2023).

Direct adhesive procedures with composite resins are considered a more conservative and less invasive technique compared to indirect procedures. However, it is a challenge for the dental surgeon, who needs to have a comprehensive understanding of the morphology of natural teeth, materials, ^{and} restorative techniques in order to restore the natural shape, size, and color of the teeth (LOPES, 2023; ZIMMER, 2024).

CASE REPORT

The patient ERRT, female, attended the Dental Clinic of the Evangelical University of Goiás-UniEVANGÉLICA for treatment. She reported aesthetic complaints due to "very ugly front teeth with yellow restorations." On clinical examination, composite resin veneers were observed on teeth 12, 11, and 21, which were unsatisfactory in terms of color and shape. Periapical radiographic examination showed satisfactory endodontic treatment on tooth 12, with no periapical lesions.

The proposed treatment was direct composite resin veneers to restore color and shape, as they are feasible, reversible, and provide excellent aesthetic results.

In the clinical session, after selecting the color and composite resin, standard cavity preparation for veneers was performed, making a cervical channel that demarcates the gingival margin. Next, for the central incisors, three cervical-incisal channels were made on the vestibular surface (one in the center, one near the mesial, and one near the distal) and two for the lateral incisor. The preparation was carried out by grinding the vestibular surface, following the channels, until completion. With the preparations completed, the unsatisfactory restorations were removed.

Modified absolute isolation was indicated. The rubber dam already in the young arch was cut with scissors to the extent necessary to expose the teeth to be restored. The edges of the dam were "glued" to the vestibular and palatal inserted gingiva with cyanoacrylate. No clamps were used in absolute isolation.

For acid conditioning, 37% phosphoric acid was used for 30 seconds on the enamel and 15 seconds on the dentin, followed by rinsing for twice as long. The conventional two-step Single Bond primer/adhesive (3M/ESPE) was applied in two layers, followed by air drying and light curing of the last layer for 20 seconds, with polyester strips on the adjacent teeth to protect them.

The veneers were started with a layer of opaque composite resin Herculite Dentina A1 (Dentsply/Sirona) and light-cured. Filtek Z250 A1 (3M/ESPE) was used to reproduce the enamel. The final polymerization was 40". After removal of the absolute isolation, the occlusion was checked and the initial finishing was performed.

The final finishing and polishing were performed in the subsequent session using fine and extra-fine diamond tips, followed by abrasive rubber tips for composite

resin polishing, discs with decreasing abrasiveness, and finally, a felt disc with Diamond R diamond paste (FGM), thus restoring the shape and color of the teeth.

CONCLUSIONS

With the constant improvement of composite resins and adhesive systems, direct aesthetic procedures have been performed satisfactorily, allowing the restoration of the harmony of the smile and the well-being of the patient.

Composite resins are a cost-effective material with excellent aesthetic results and satisfactory longevity when properly indicated.

The use of direct composite resin veneers in this clinical case has proven to be an effective option for aesthetic and functional recovery, which are important for improving the patient's quality of life and self-esteem.

BIBLIOGRAPHICAL REFERENCES

Alves DL et al. Direct composite resin veneers: Indications and Technique. Rev Cathedral 2022; 4(1):109-116.

Lopes MC et al. Techniques and fabrication of direct composite resin veneers. Rev Ibero-Am Humanidades, Ciências e Educação 2023; 9(10):2418-30

Lopes da Costa AP et al. Direct composite resin veneers and indirect ceramic veneers: a literature review. Braz J Health Rev 2024;7(3):1-15.

Reis de Sousa JS et al. Direct composite resin veneers: case report and discussion of current concepts. Res Society Development 2023; 12(6):1-6; e2612641849. Available at <https://rsdjournal.org/index.php/rsd/article/view/41849>.

Rocha AO et al. Anterior aesthetic intervention using direct composite resin veneers: case report. Rev Elet Acervo Saúde 2021; 13(03):1-7. Available at <https://acervomais.com.br/index.php/saude/article/view/6439>.

Zimmer R et al. Clinical longevity of direct resin-based composite veneers on anterior teeth. Rev Fac Odontol Un Passo Fundo 2024; 29(1):1-13.