

INCREASE OF INISIALS WITH COMPOSITE RESIN FOR HARMONIZATION OF AESTHETICS AND FUNCTION - CASE REPORT

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ABSTRACT

The quest for a perfect smile that is pleasing to the eye has made cosmetic treatments highly relevant, increasing the demand for procedures that meet these needs. Direct composite resin restorations are widely used for aesthetic solutions in various clinical situations. **Objective:** To report the clinical case of a patient with worn incisal edges of the anterior upper teeth, which led to loss of aesthetics. Using a minimally invasive restorative approach, the incisal edges were augmented with direct composite resin restorations to restore aesthetics. **Case report:** The patient, IBC, female, attended the UniEVANGÉLICA Dental Clinic complaining of aesthetic dissatisfaction, with the main complaint being “sensitivity in the upper front teeth, because they were worn and also ugly, because they were small.” Upon performing an intraoral examination, wear was noticed on the incisal edges of the anterior upper teeth. The proposed treatment plan was to perform restorations with composite resin using the direct technique to reconstruct the incisal edges, following the clinical restoration protocol. The final finishing and polishing were left for the subsequent session. **Conclusions:** Adhesive restorative procedures showed excellent aesthetic and functional results, exceeding expectations. Composite resins are increasingly versatile, meeting various clinical demands and enabling aesthetic restorative procedures that correspond to patients' aesthetic appeals, with an excellent cost-benefit ratio.

Keywords: Dental materials; Composite resins; Dental aesthetics.

INTRODUCTION

The growing quest for a perfect smile that is pleasing to the eye has led to an increase in demand for treatments that meet these demands, in order to improve

individuals' confidence and self-esteem (GOMES, 2021), as well as to restore the aesthetics and functionality of teeth (MELO NETO, 2018).

Due to increasing concern with appearance, individuals no longer want to live with unsightly and disharmonious situations (DETOGNI, 2020; HEISE, 2021). Dentistry plays an important role in this process, leading to continuous advances in materials and techniques over the years (DETOGNI, 2020).

A smile considered aesthetically beautiful highlights the harmony between the teeth, gums, and lips. Teeth with any changes in alignment, shape, or color, for example, can generate anti-social reactions, directly affecting how the patient sees themselves (GOMES, 2021).

Anterior aesthetic restorations in composite resin are essential in modern dentistry, acting as an important factor in social transformation, since the anterior superior teeth play a fundamental role in dental aesthetics (DETOGNI, 2020; GOMES, 2021). Therefore, knowledge of dental materials and mastery of the available techniques are essential in order to perform restorations with a natural appearance (OLIVEIRA 2022).

Composite resin procedures promote excellent and pleasing results in smile aesthetics in a wide variety of clinical situations, including the restoration of incisal edges and the lengthening of upper incisors (THAYER 2022).

CASE REPORT

Patient IBC, female, attended the UniEVANGÉLICA Dental Clinic with the main complaint of “sensitivity in the upper front teeth, because they are worn and ugly, as they are small.”

Anamnesis and routine complementary examinations were performed. Clinically, there was evident loss of dental structure on the incisal edges of the anterior upper teeth, reducing the size of the crowns, showing dentin exposure and irregular enamel, with small fractures in the enamel of the edges.

The proposed treatment was direct restoration with composite resin to restore the shape of the upper front teeth. In the planning phase, impressions were taken to

obtain plaster models, and diagnostic waxing was then performed. A silicone guide was molded on the waxed model to assist and speed up the restoration procedure.

During the restoration session, modified absolute isolation was placed on the patient using a Young arch and a rubber dam fixed to the oral mucosa with cyanoacrylate. A small bevel was made on each tooth on the vestibular surface, near the incisal edge, to remove friable enamel, improve aesthetics, mask the tooth-restoration margin, and also for better adaptation of the composite resin.

Conditioning was performed with 37% phosphoric acid for 30 seconds on the enamel and 15 seconds on the dentin, followed by rinsing for twice the time. After drying, a two-step conventional primer/adhesive, Single Bond (3M/ESPE), was applied in two layers, followed by air drying and photopolymerization of the last layer for 20 seconds.

The incisal edges were increased and reconstructed by placing small layers of Herculite Dentina A2 (Dentsply/Sirona) microhybrid composite resin and Filtek Z250 A2 (3M/ESPE) to reproduce the enamel, and then polymerized one by one until the expected result was obtained. The final polymerization was 40 seconds.

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 harmonious smile so desired by the patient.

CONCLUSIONS

Composite resins are increasingly versatile, catering to a variety of clinical situations and responding positively to patients' aesthetic demands, offering affordable costs and, above all, minimally invasive procedures.

The silicone guide made it easier to define the height and contours of the teeth, speeding up the restorative treatment.

The clinical approach offered to the patient restored aesthetics, comfort, and health, causing a positive impact, which raised her self-esteem and self-image, as the success achieved in this aesthetic treatment met her expectations.

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