

Félix da Costa H.<sup>\*†</sup>, Simões A.<sup>†</sup>, Belbut M.<sup>†</sup> DDS, Amorim T.<sup>†</sup> DDS, Mano Azul AC.<sup>†✓</sup> DDS, PhD  
<sup>\*</sup> Author <sup>†</sup> Instituto Superior de Ciências da Saúde - Egas Moniz  
<sup>✓</sup> Centro de Investigação Interdisciplinar Egas Moniz

# CLOSING DIASTEMAS WITH

# DIRECT RESTORATIONS: CLINICAL CASE

**CLINICAL CASE DESCRIPTION:** Female patient, 50 years old, who attended an emergency appointment, at ISCSEM, unhappy with the aesthetics of her smile. According to the clinical history, she had a depression and was under psychiatric treatment. Bite-wings and an orthopantomography were used as additional diagnosis procedures. The objective examination of the patient revealed attrition lesions in the 2<sup>nd</sup> and 5<sup>th</sup> sextants. The patient was diagnosed with the presence of a diastema in the antero- superior region (Figs 1-3). Several treatment solutions have been proposed, but due to financial constraints indicated by the patient, the selected approach was the rehabilitation with direct restorations. A diagnostic wax-up was carried out (Fig 4) along with silicone keys to be used as a palatal guide and for the *mock-up* (Figs 5 and 6). The *mock-up* of bis-acrylic resin was applied to verify the final shape of the restorations. The strategy to be implemented for the restorations was based on the adhesive system Optibond FL (Kerr/Hawe, Scafati, Italy) and the application of the composite Enamel Plus HRI (Micerium, Avegno, Italy) with UD2 and EU2 colors through the composite layering technique (Figs 7-9).



Fig. 1 - Extra-oral initial photographs



Fig. 2 - Intra-Oral initial photographs



Fig. 3 - "Close-up" 2<sup>nd</sup> sextant

**DISCUSSION:** There are several treatment options to close a diastema, all with their advantages and limitations. It is possible to choose between orthodontic treatment<sup>1</sup>, rehabilitation with crowns<sup>2</sup>, rehabilitation with ceramic veneers<sup>3</sup>, rehabilitation with resin composed veneers<sup>4</sup> or rehabilitation through direct restorations<sup>5,6</sup>. From the various options of treatment, the rehabilitation with composite resin directly through the composite layering technique is simple, economic and conservative<sup>7</sup>.



Fig. 4 - Diagnostic Wax-up



Fig. 5 - Occlusion after *mock-up*



Fig. 6 - "Close-up" with *mock-up*



Fig. 7 - Field isolation



Fig. 8 - Palatal silicone index



Fig. 9 - Etch and Rinse adhesive strategy

**CONCLUSION:** The closure of the diastema in anterior teeth, using direct restorations, is considered a viable option for the rehabilitation of the harmony of soft and hard tissues, matching to the aesthetic expectations of the patient (Fig 10-16).



Fig. 10 - Extra-oral final photographs



Fig. 11 - Final occlusion



Fig. 12 - "Close-up" final smile



Fig. 13 - Final smile - 1<sup>st</sup> quadrant



Fig. 14 - Final smile - Frontal image



Fig. 15 - Final smile - 2<sup>nd</sup> quadrant

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Fig. 16 - Final smile with the students

