

# CORRECTION OF EXCESSIVE SPACES IN THE ESTHETIC ZONE



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## INTRODUCTION

- It has been defined as a space greater than 0.5 mm between the proximal surfaces of adjacent teeth



# ETIOLOGY OF MIDLINE DIASTEMA

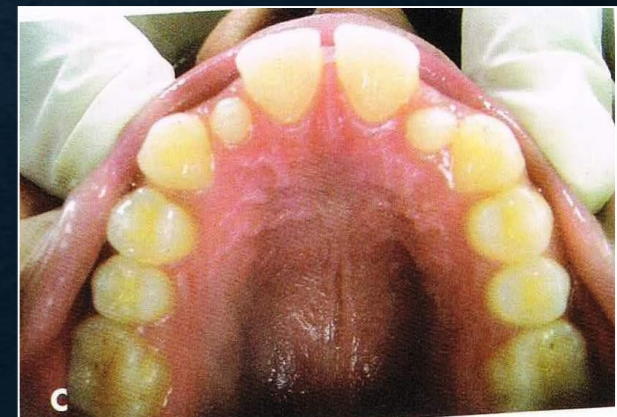
## 1. NORMAL DEVELOPING DENTITION

- a) Physiologic median diastema/ ugly duckling stage
- b) Ethnic and familial
- c) Imperfect fusion of midline of premaxilla



## 2. TOOTH MATERIAL DEFICIENCY

- a) Microdontia
- b) Macrogathia
- c) Missing lateral
- d) Peg laterals
- e) Extracted tooth



### 3. PHYSICAL IMPEDIMENT

- a) Retained deciduous
- b) Mesiodens
- c) Abnormal labial frenum
- d) Midline pathology
- e) Deep bite



## 4. HABITS

- a) Thumb sucking
- b) Tongue thrusting
- c) Frenum thrusting



# MANAGEMENT

- a) REMOVAL OF CAUSE
- b) ACTIVE TREATMENT
- c) RETENTION

# 1. REMOVAL OF CAUSE

- **DIASTEMA DUE TO UGLY DUCKLING STAGE**

No treatment required

- **DIASTEMA DUE TO IMPERFECT FUSION AT THE MIDLINE**

Surgery

- **DIASTEMA DUE TO MICRODONTIA AND MACROGNATHIA**

Orthodontic , crowns or composite build-up.

- **DIASTEMA DUE TO MISSING TEETH/EXTRACTED TOOTH**

Implant or bridge



- **DIASTEMA DUE TO RETAINED DECIDUOUS TEETH/MESIODENS**

Extracted at the earliest.

- **DIASTEMA DUE TO ABNORMAL FRENUM**

Frenectomy .

- **DIASTEMA DUE TO MIDLINE PATHOLOGY**

Midline pathology like cysts has to be treated.

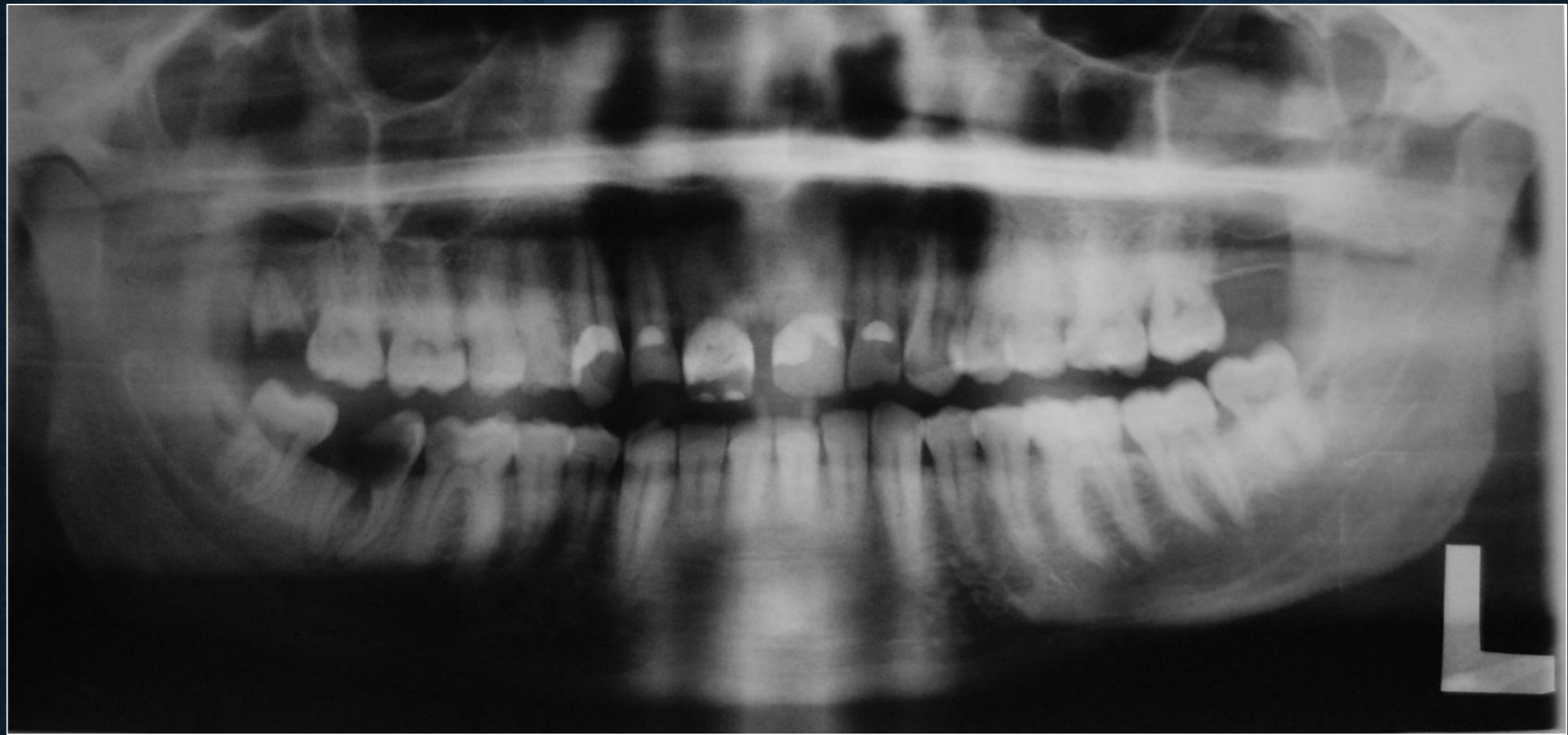
- **DIASTEMA DUE TO ABNORMAL HABITS**

Habits should be eliminated using fixed or removable habit breakers.

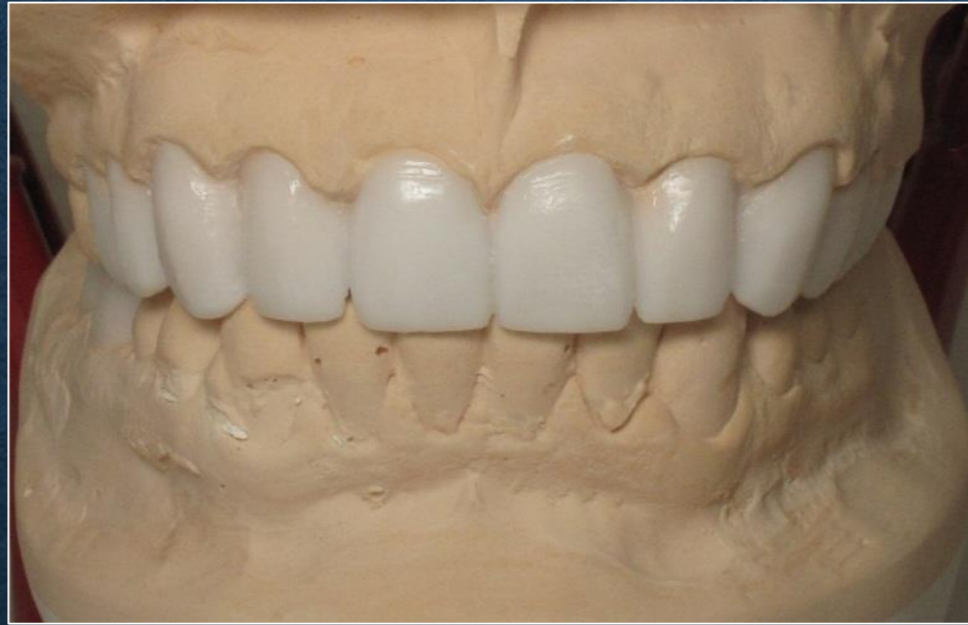
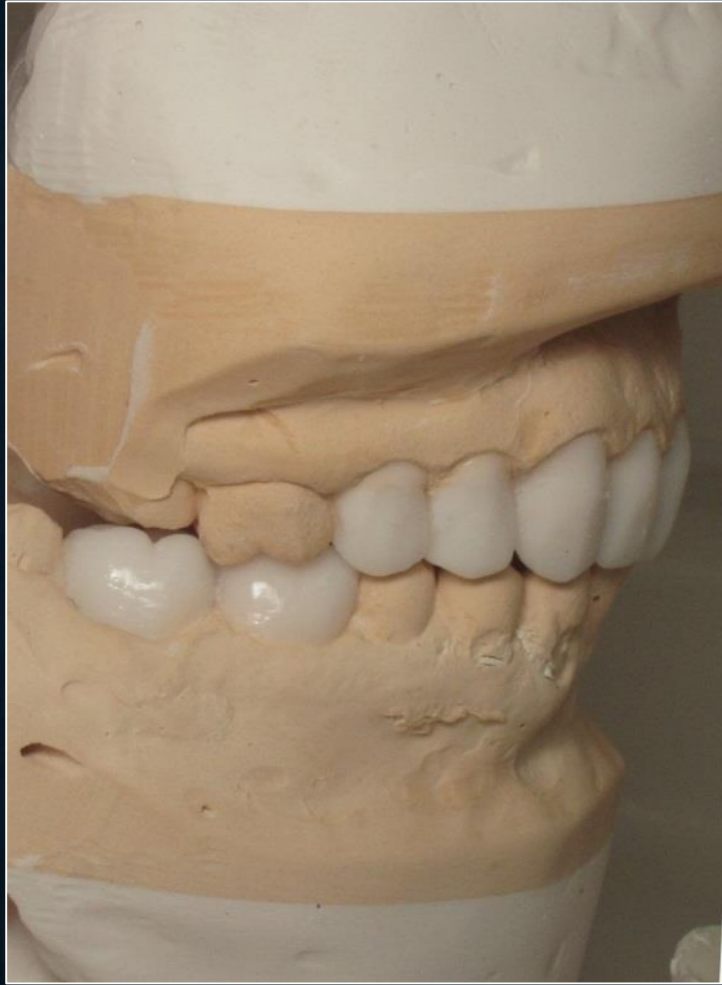


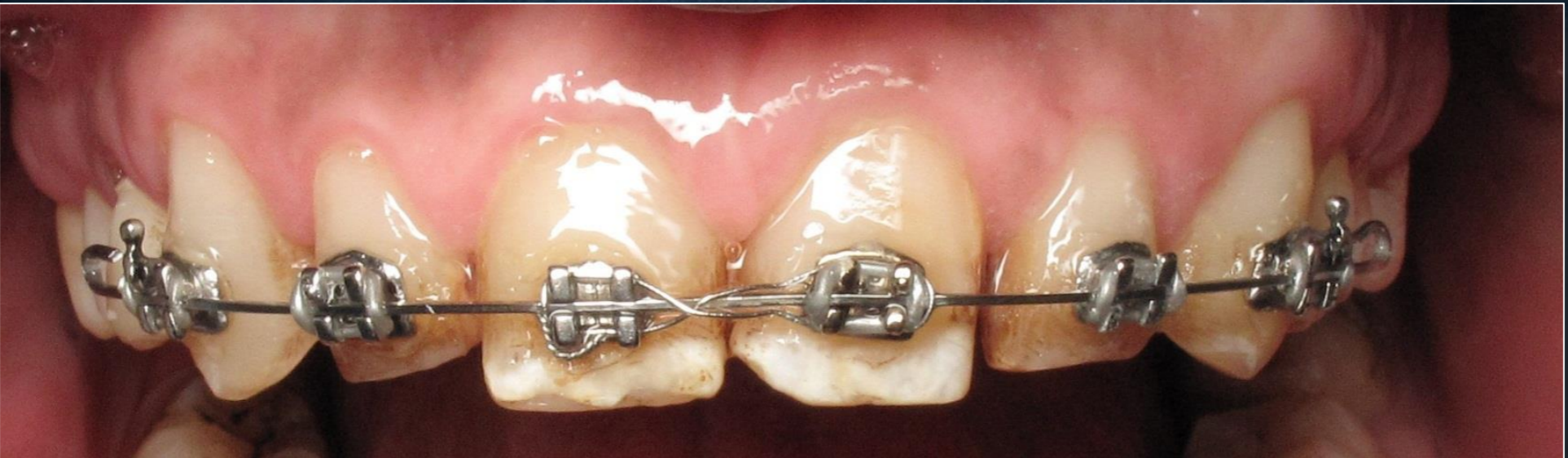
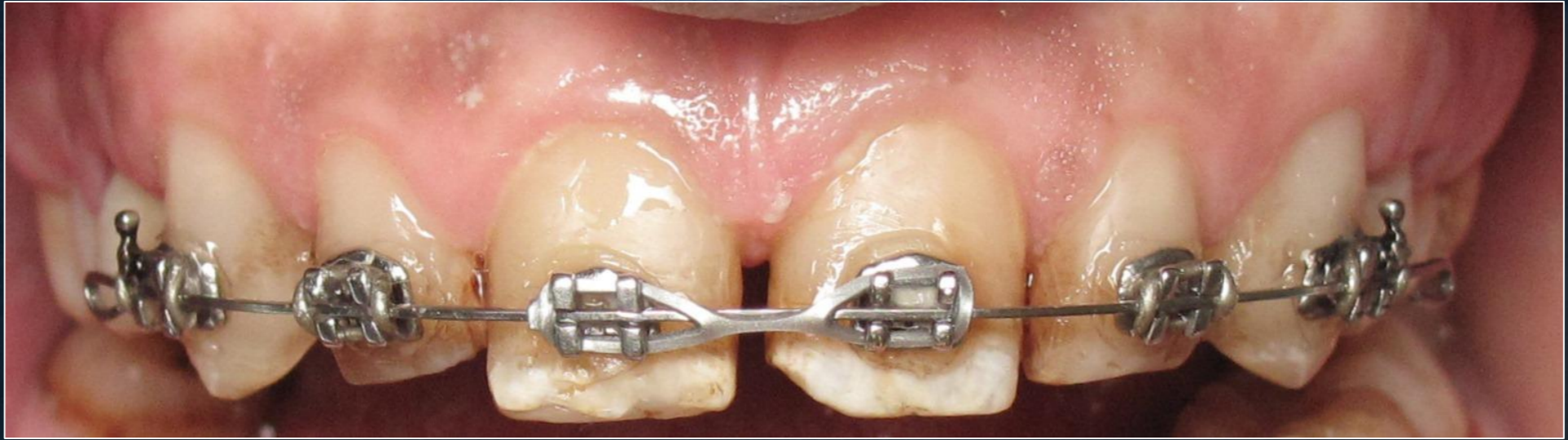








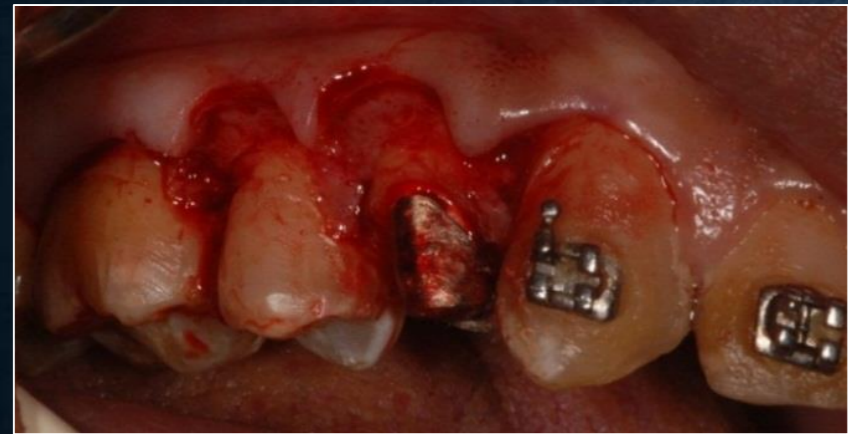
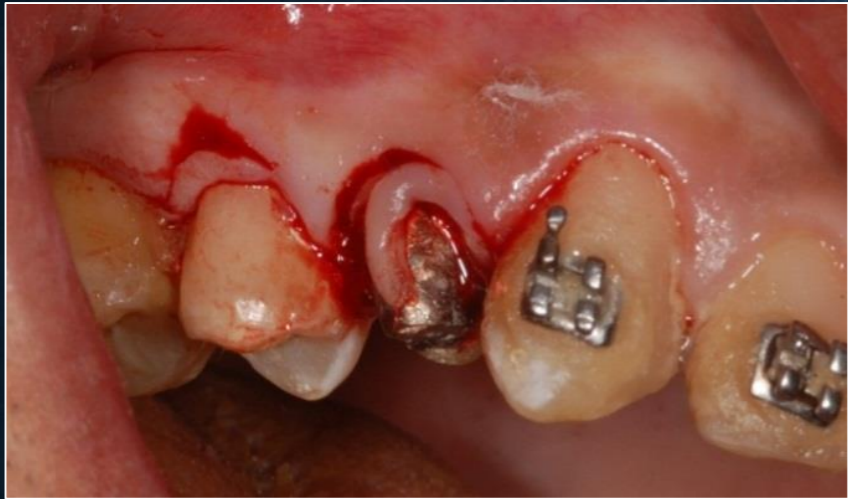


























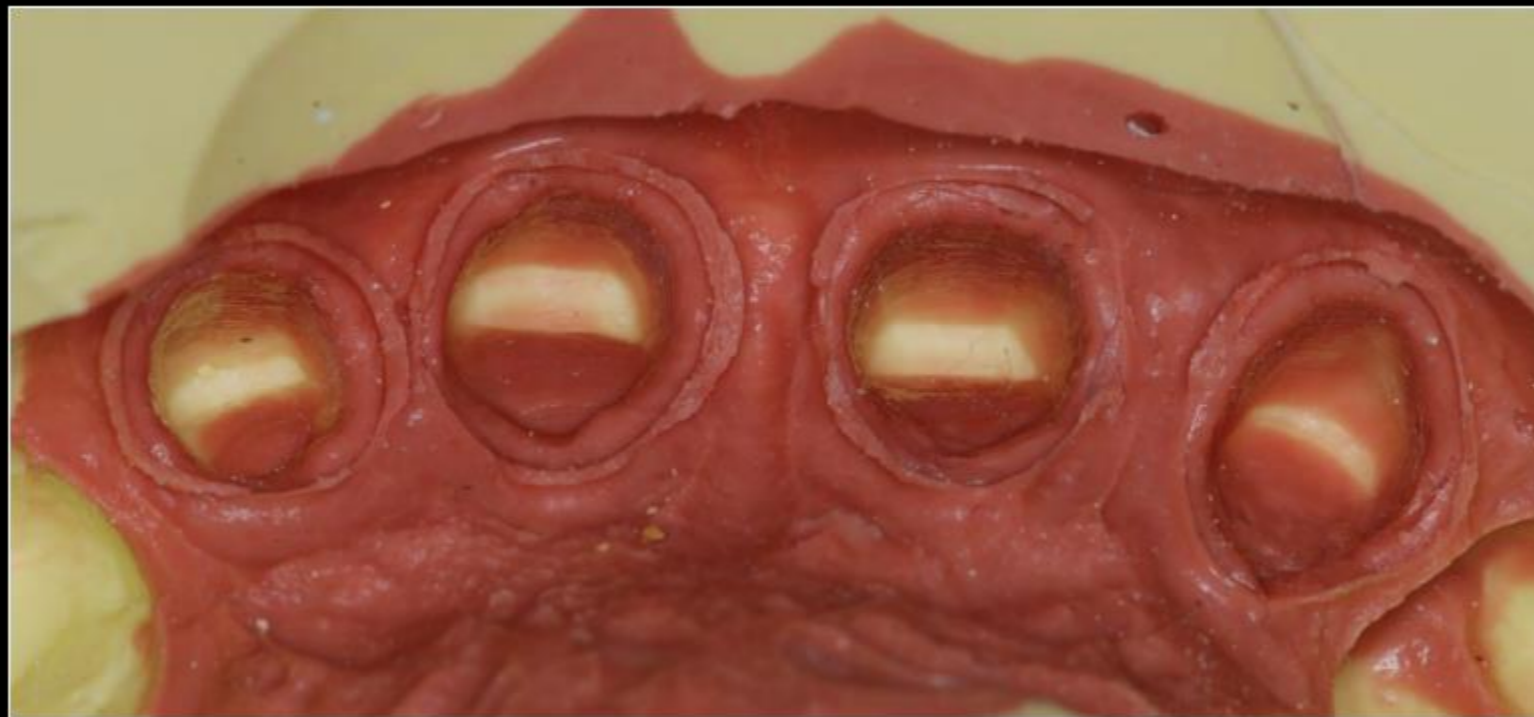
























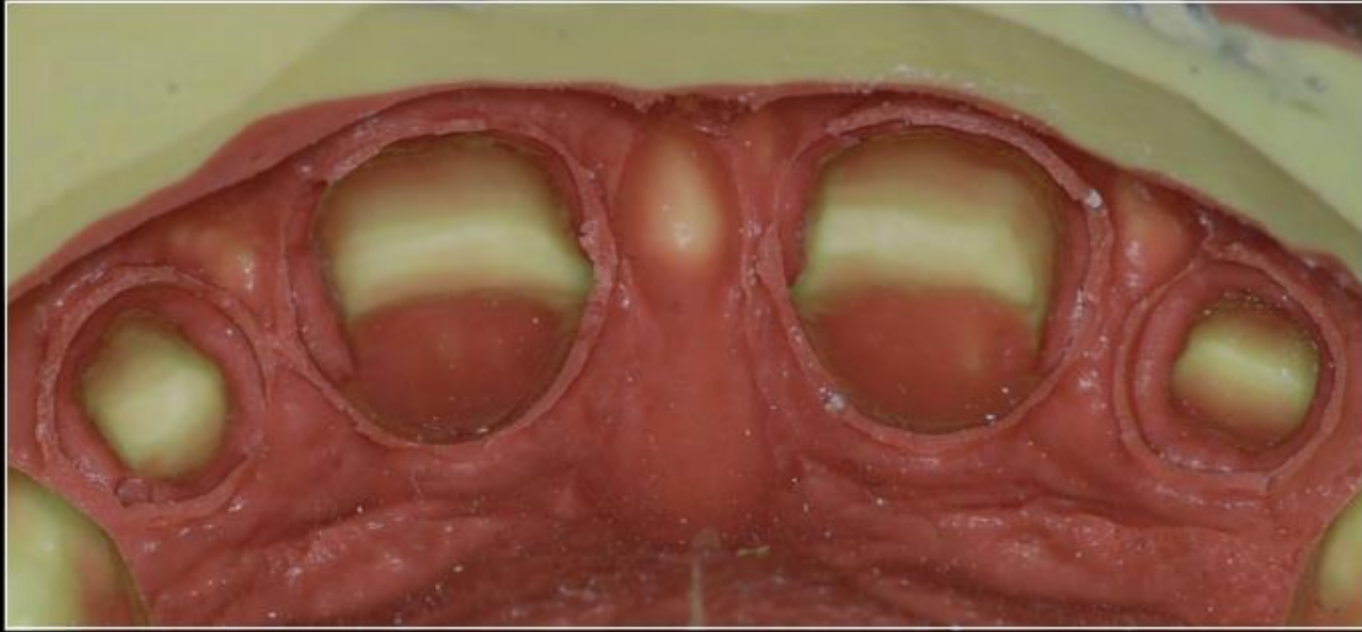


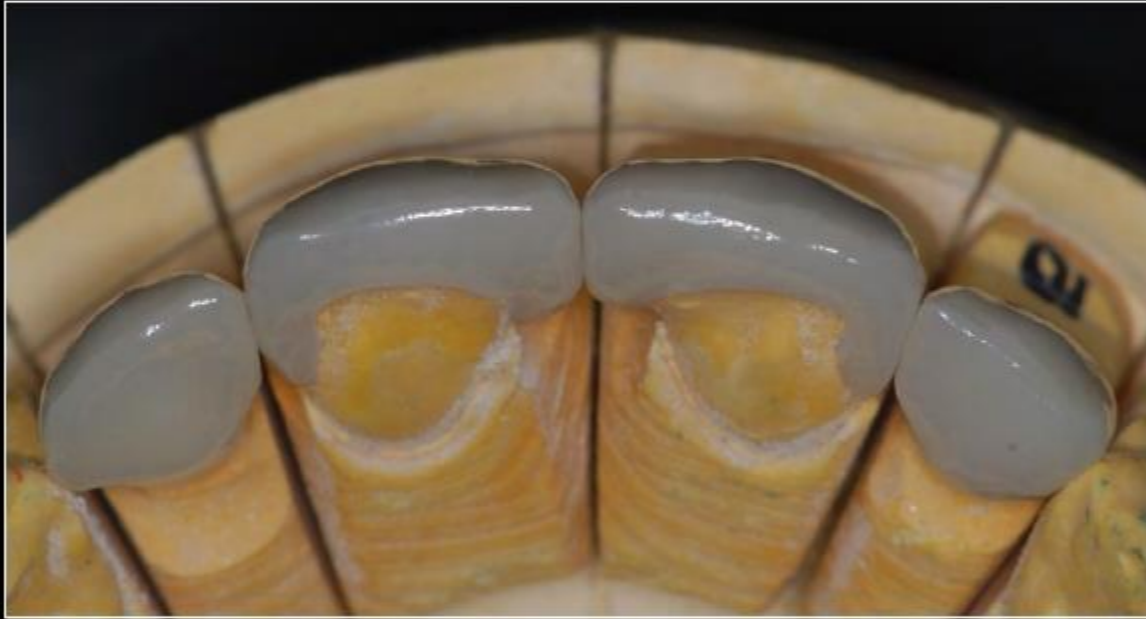


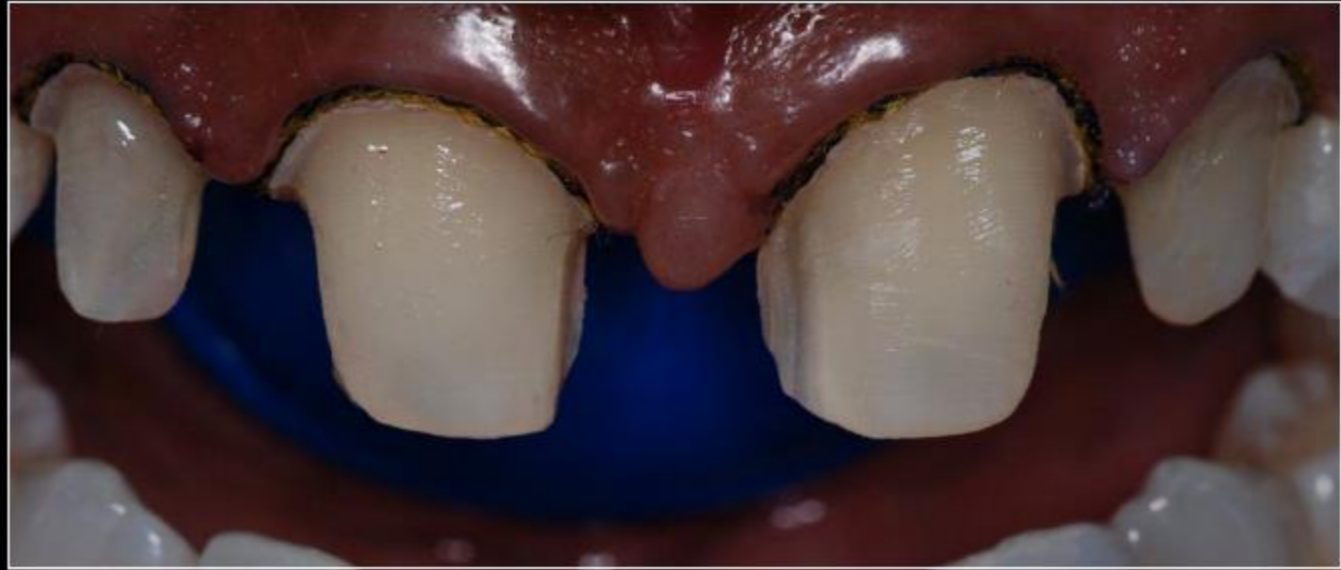




























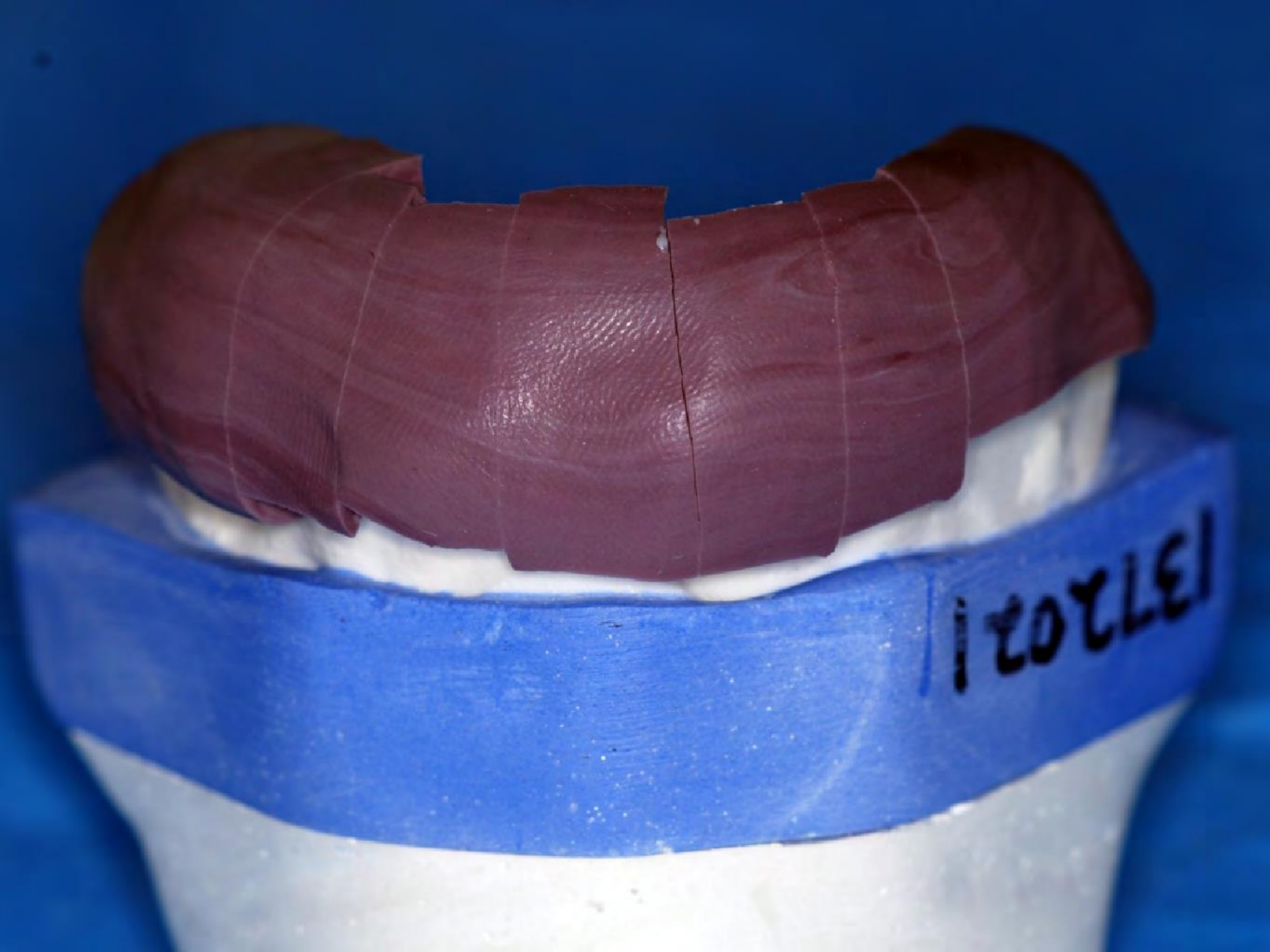












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predictability



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# REPRODUCING OPALESCENT AND COUNTER-OPALESCEENT EFFECTS WITH DIRECT RESIN COMPOSITES



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The goal of esthetic and restorative dentistry is to replace lost or damaged structures with artificial materials that possess biological, physical, and functional properties similar to natural teeth.<sup>1</sup> In recent years, numerous resin composite systems have been developed with a multitude of shades, translucencies, opacities, and effects, which in conjunction with innovative placement techniques, makes it possible to fabricate restorations that faithfully emulate the polychromatic variations and optical characteristics of

natural teeth.<sup>2-4</sup> Moreover, to achieve a direct resin composite restoration with a truly natural appearance, a comprehensive knowledge and understanding of the optical characteristics of natural teeth and resin composites, proper selection and application of current restorative systems, and rigorous training are imperative.<sup>5,6,7</sup> The optical characteristics present in natural teeth are determined by the interaction between light and the dentin, enamel, and underlying pulp, and include the varying degrees of translucency and opacity of enamel and dentin, fluorescence, and opalescence.<sup>8,9,10,11</sup>

When a ray of light reaches the surface enamel of an intact natural tooth, several events occur: some of the light is reflected, some is transmitted, and some penetrates the enamel and is absorbed and scattered within the tooth structure.<sup>12</sup> The light that penetrates the enamel and reaches the dentin is also reflected backward, and this reflects the color of the dentin.<sup>13</sup> The final perceived color of a tooth depends on the thickness and translucency characteristics of the overlying

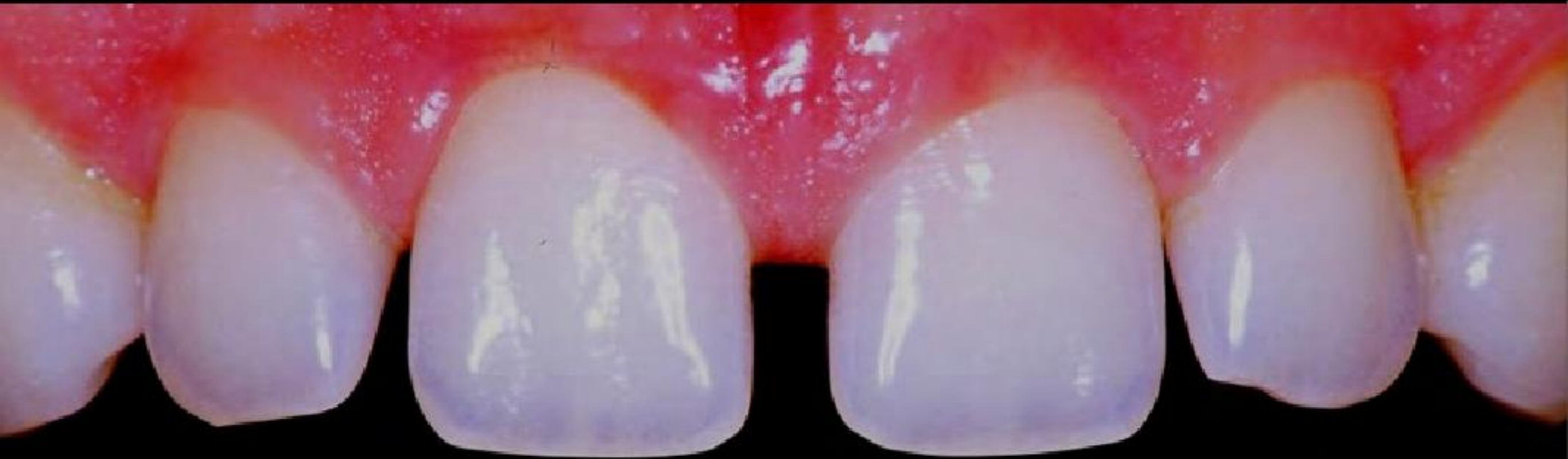
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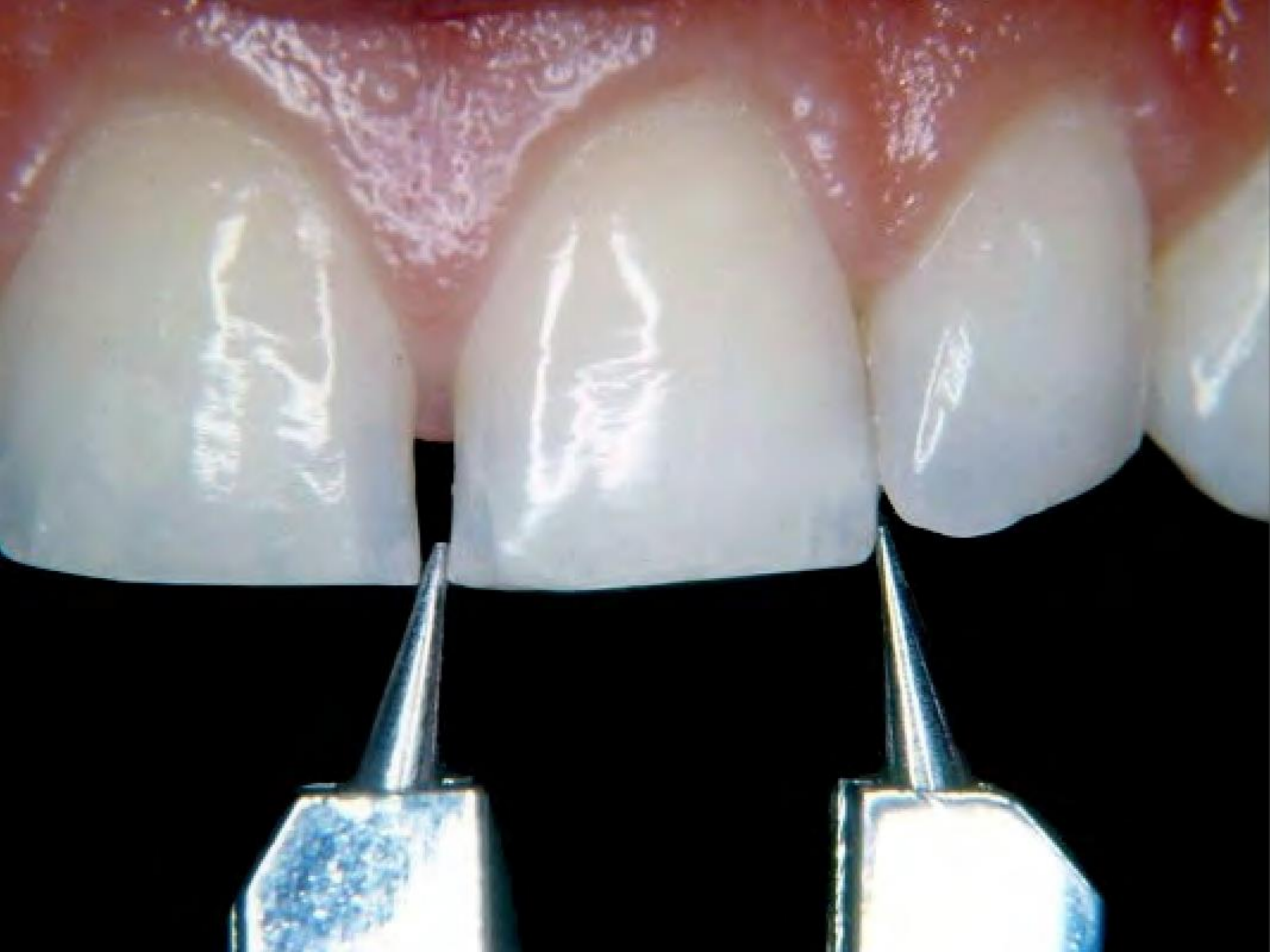
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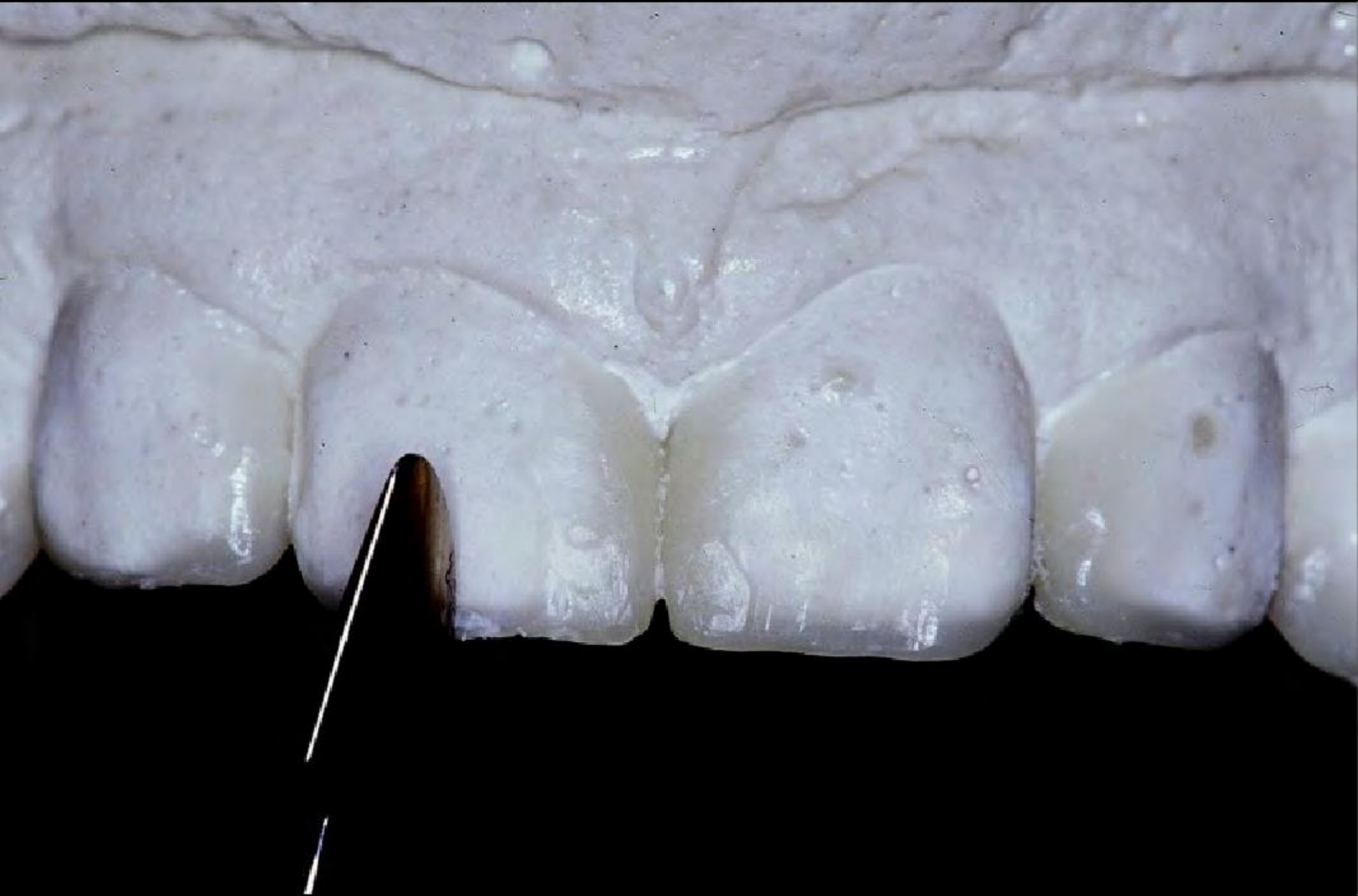














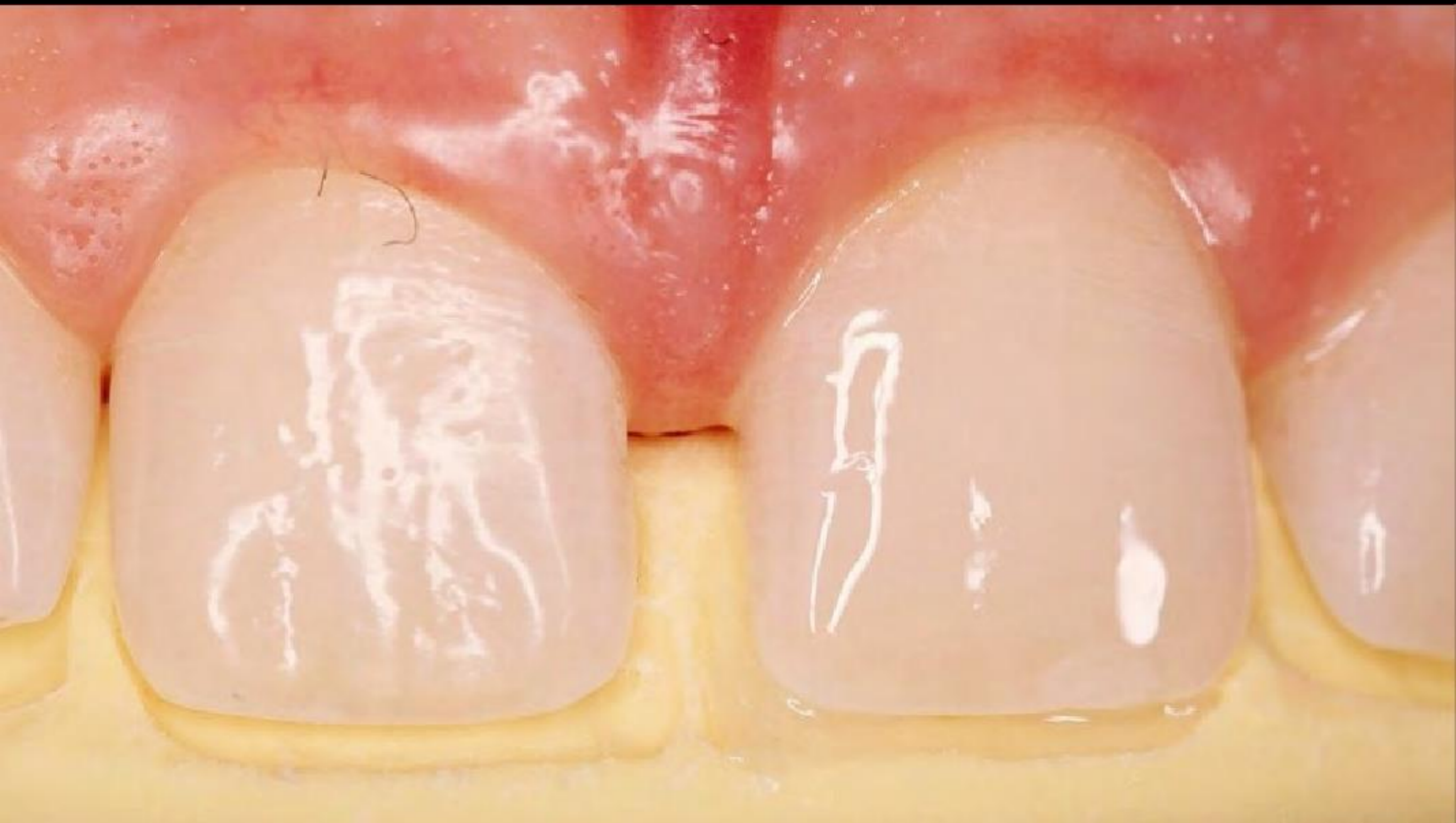






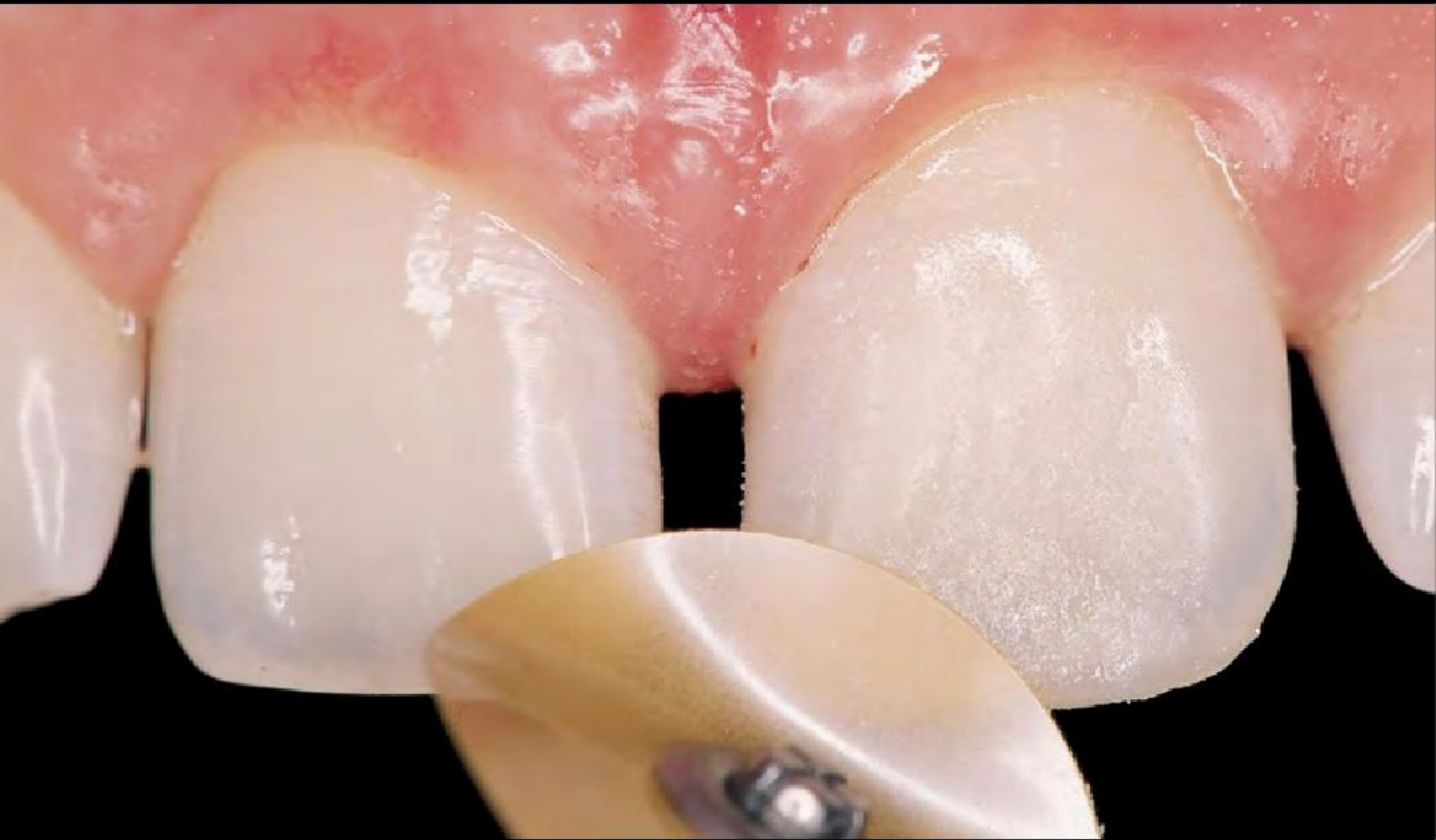










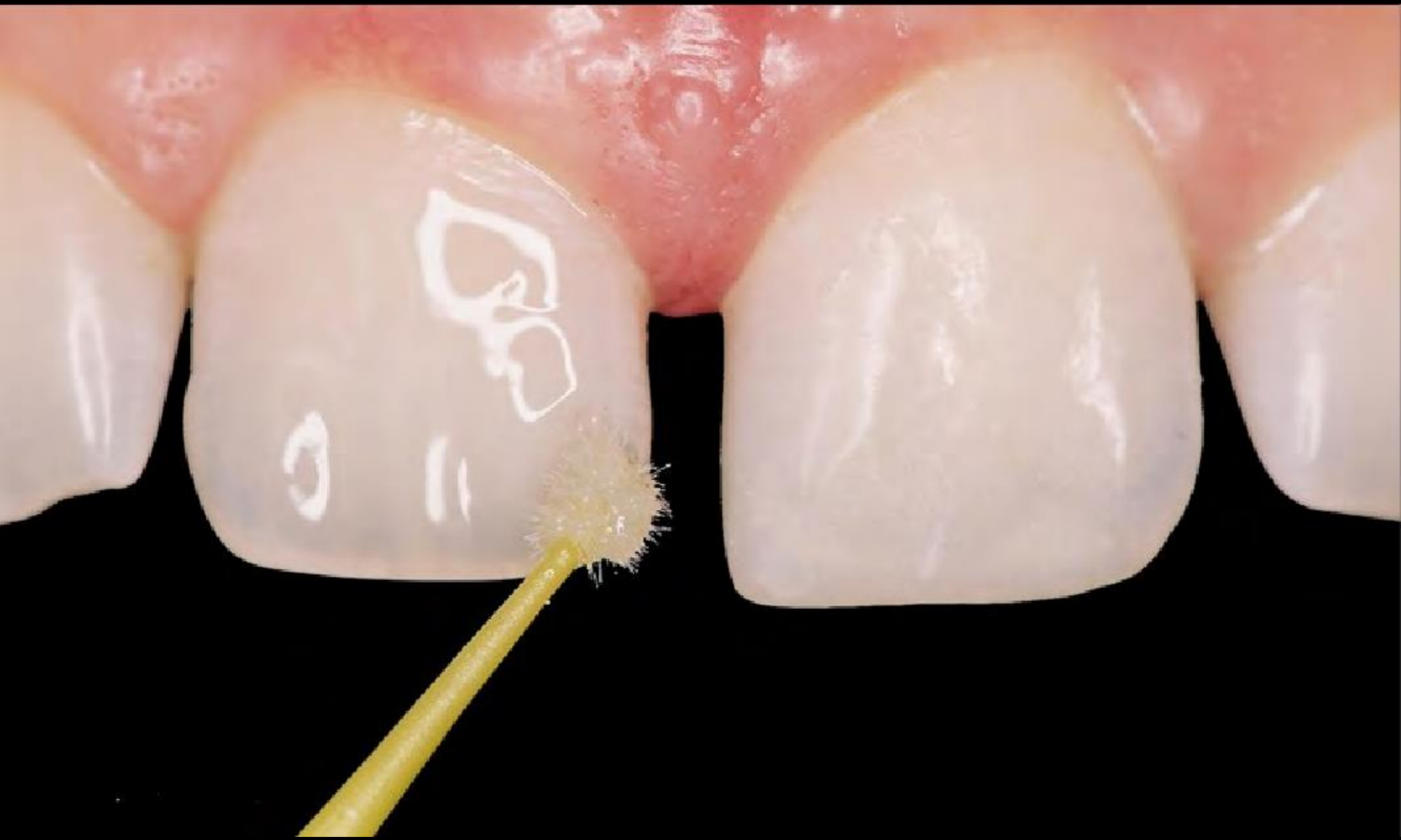




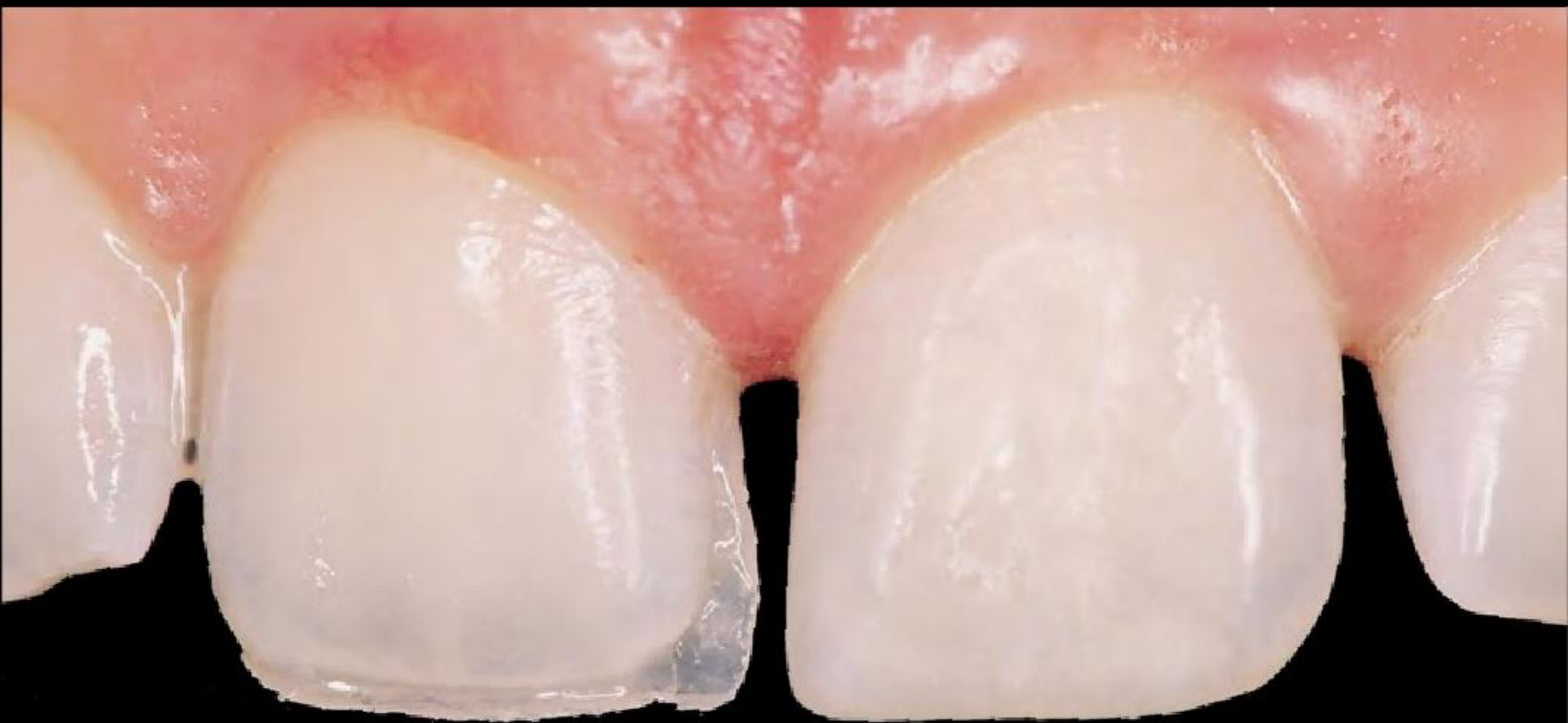


























# Closure of Diastema and Gingival Recontouring Using Direct Adhesive Restorations: A Case Report

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## ABSTRACT

One of the challenges in clinical esthetic dentistry is closing anterior diastemas without creating "black triangles" between the teeth. The success of a restorative treatment in anterior teeth depends on the esthetic integration between soft tissues and hard tissues. The conditioning of the interdental papilla is a simple, direct, predictable, and low-cost alternative. This paper reports a case of diastema closure in anterior teeth that was successfully treated using gingival recontouring and composite resin restorations.

## CLINICAL SIGNIFICANCE

The closure of diastemas in anterior teeth using direct adhesive restorations and gingival recontouring is a viable option for the clinician because it restores esthetic harmony between soft and hard tissues.

*J Esthet Restor Dent* 21:229-241, 2009

## INTRODUCTION

Modern dentistry is constantly searching for esthetic excellence. New materials and techniques are often introduced, leading professionals to endless improvement while fulfilling their patients' esthetic demands.<sup>1</sup>

For several decades, professionals all over the world have tried to find the perfect balance between white architecture (teeth) and pink architecture (gums) in the reproduction of anterior teeth, which should be esthetically pleasant and natural.<sup>2</sup>

In that context, one of the difficulties encountered is closing diastemas without creating "black triangles" or wide gingival embrasures.<sup>3</sup> Black triangles are spaces which appear between teeth when the gingival tissue does not follow the respective tooth contour and exposes the black background of the oral cavity.

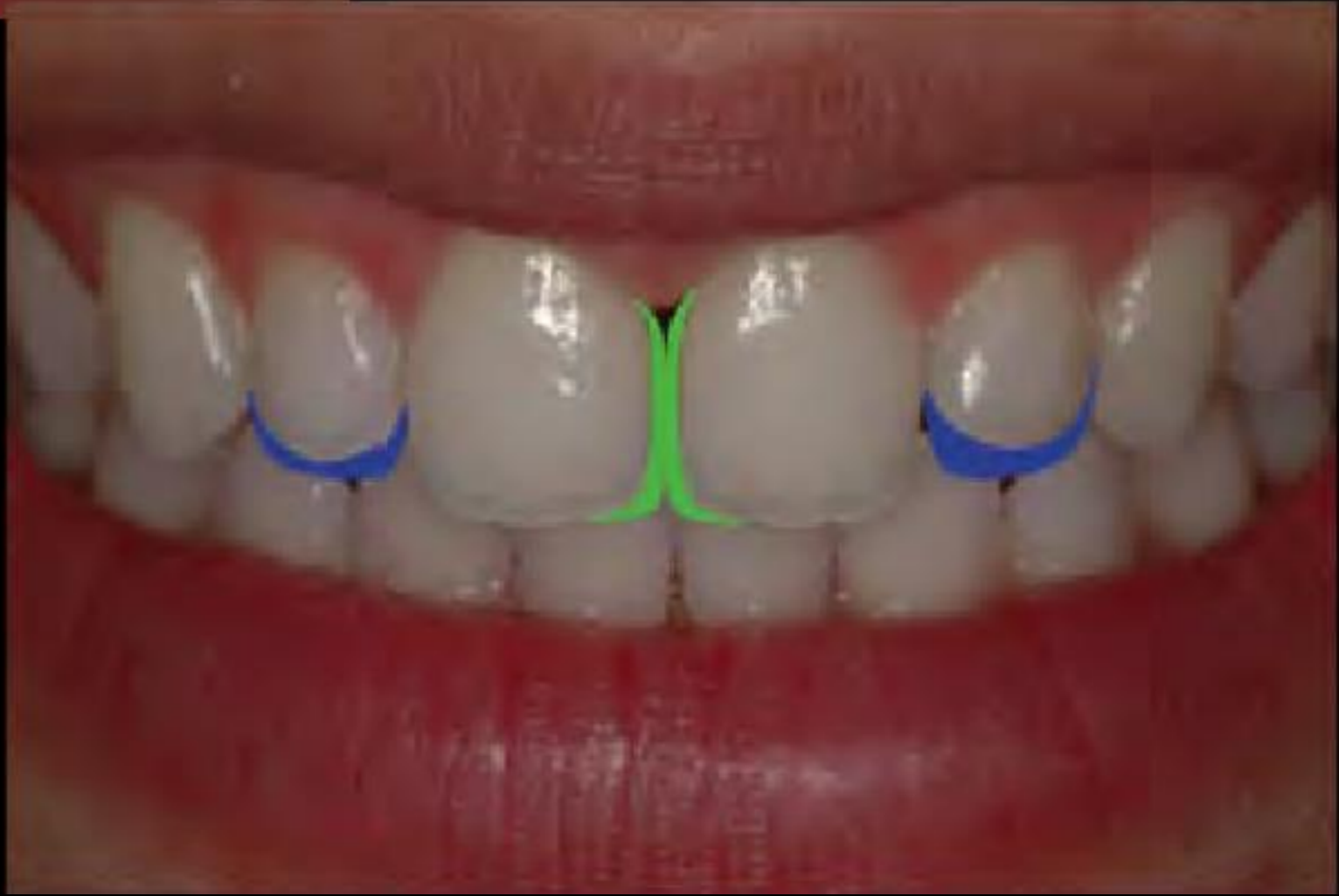
Among the suggested options for the closing of diastemas, orthodontics, operative dentistry, and prosthodontics are the most suitable.<sup>4</sup> Operative dentistry stands out by

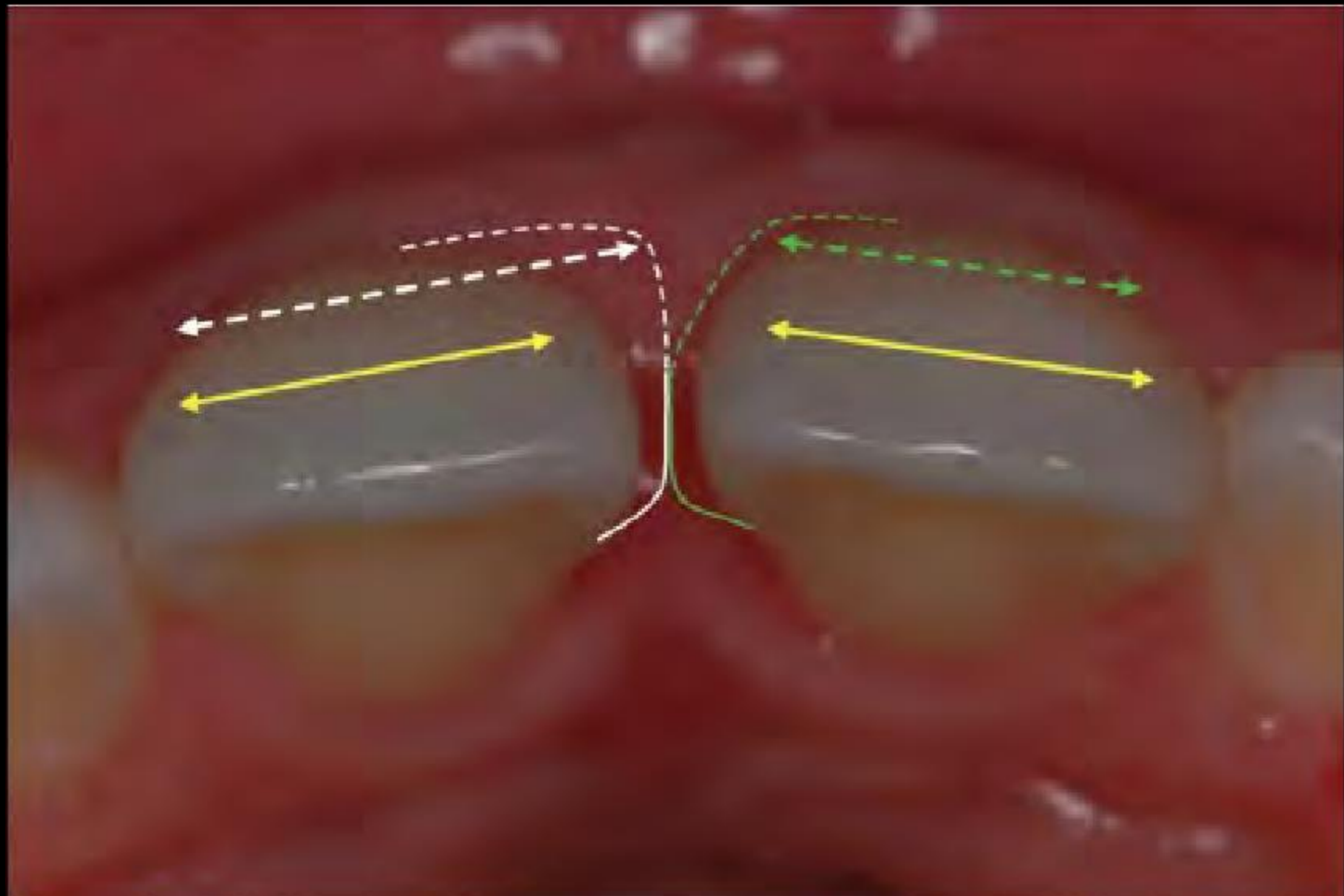
presenting simple, fast, predictable, and low-cost solutions. Orthodontics requires the use of fixed appliances, which means a more complex, longer, and more expensive treatment. Prosthodontics requires indirect and more invasive procedures with laboratory involvement.

The purpose of this paper is to describe a case report in which the diastema closure was accomplished using direct adhesive restorations and gingival tissue recontouring.

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**Thank**

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