



# THE KEYS OF SUCCESSFUL POSTERIOR RESTORATIONS..

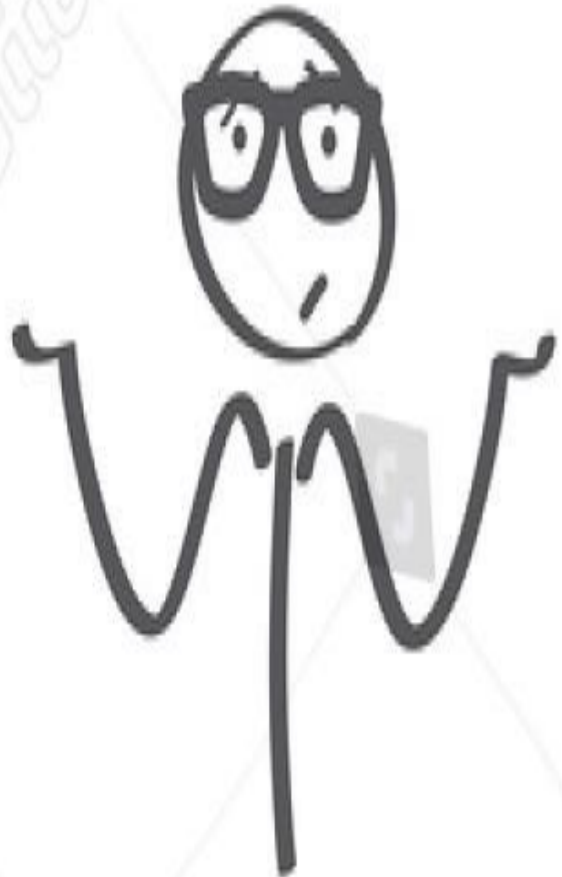


# THE KEYS OF SUCCESSFUL POSTERIOR RESTORATIONS



**DR. MOHAMED TALAL**

# DAILY CHALLENGE ..



# IN YOUR FACE:

Facing the Realities of Stress in Dentistry

by Jen Butler, MEd, BCC

Different types of head aches

**MIGRAINE**



**STRESS**



**HYPERTENSION**



**WORKING IN DENTISTRY**

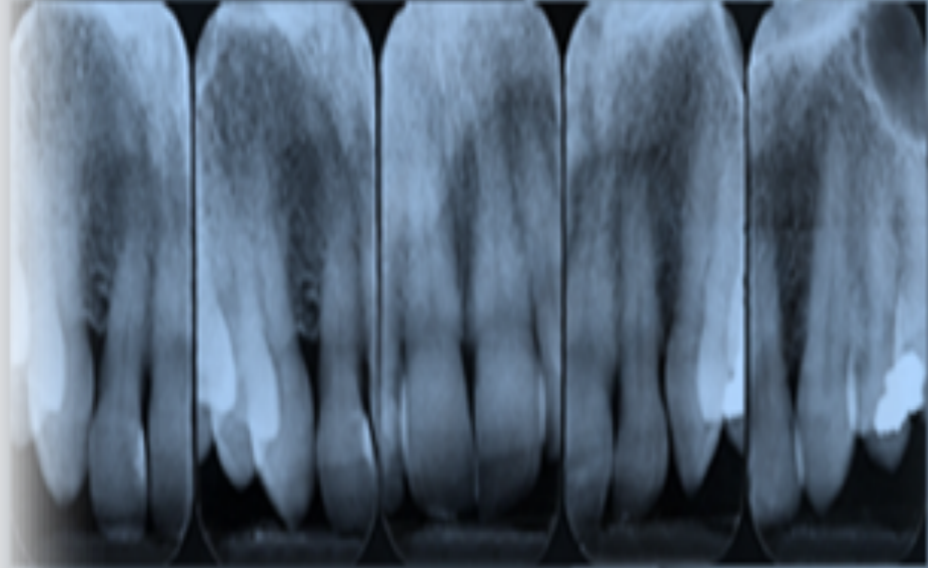


# Why Composite in Posteriors ?

Esthetics .



# Diagnosis



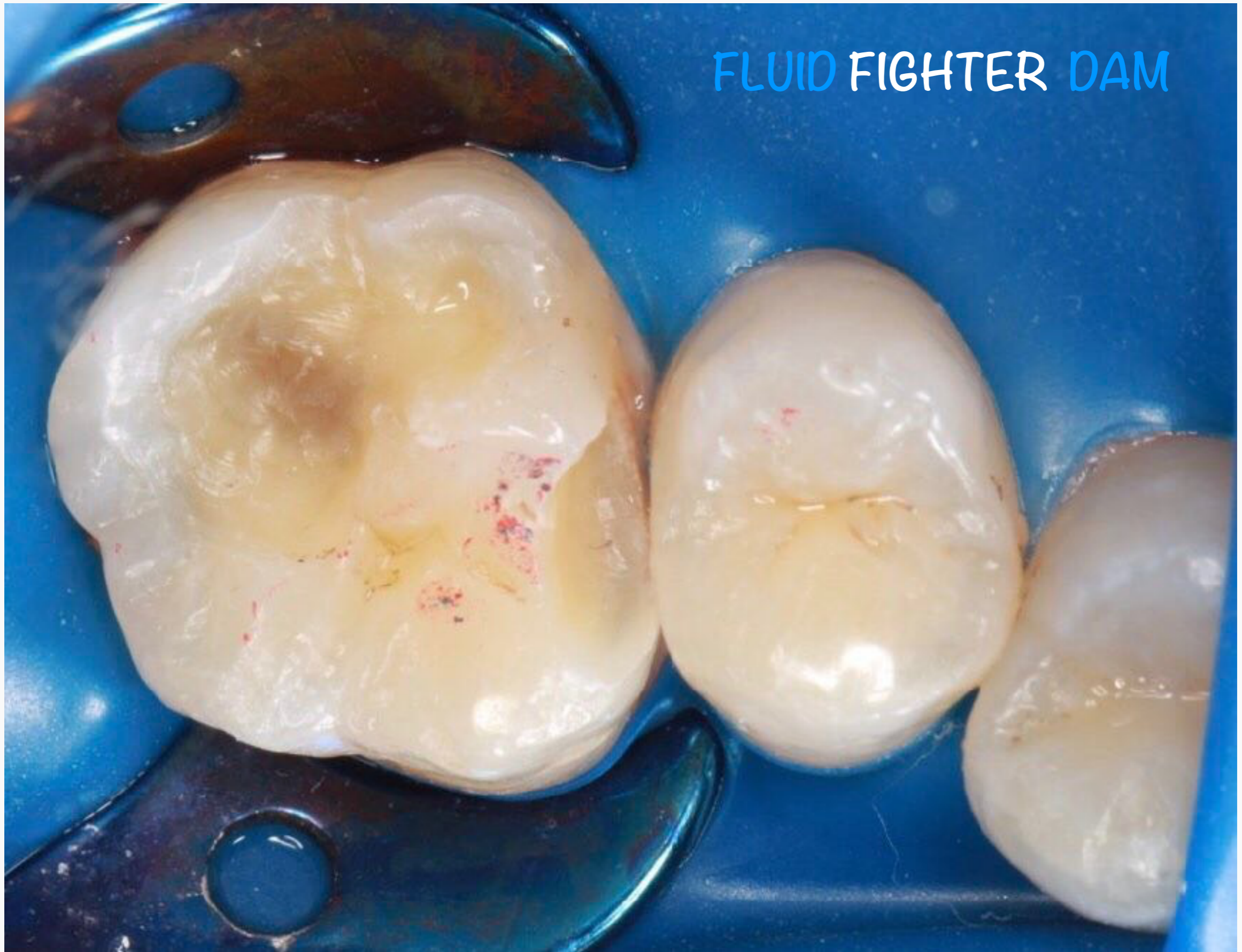


EXPOSED DENTINE OLD COMPOSITE PROXIMAL CARRIES





# FLUID FIGHTER DAM











MOHAMED TALAL



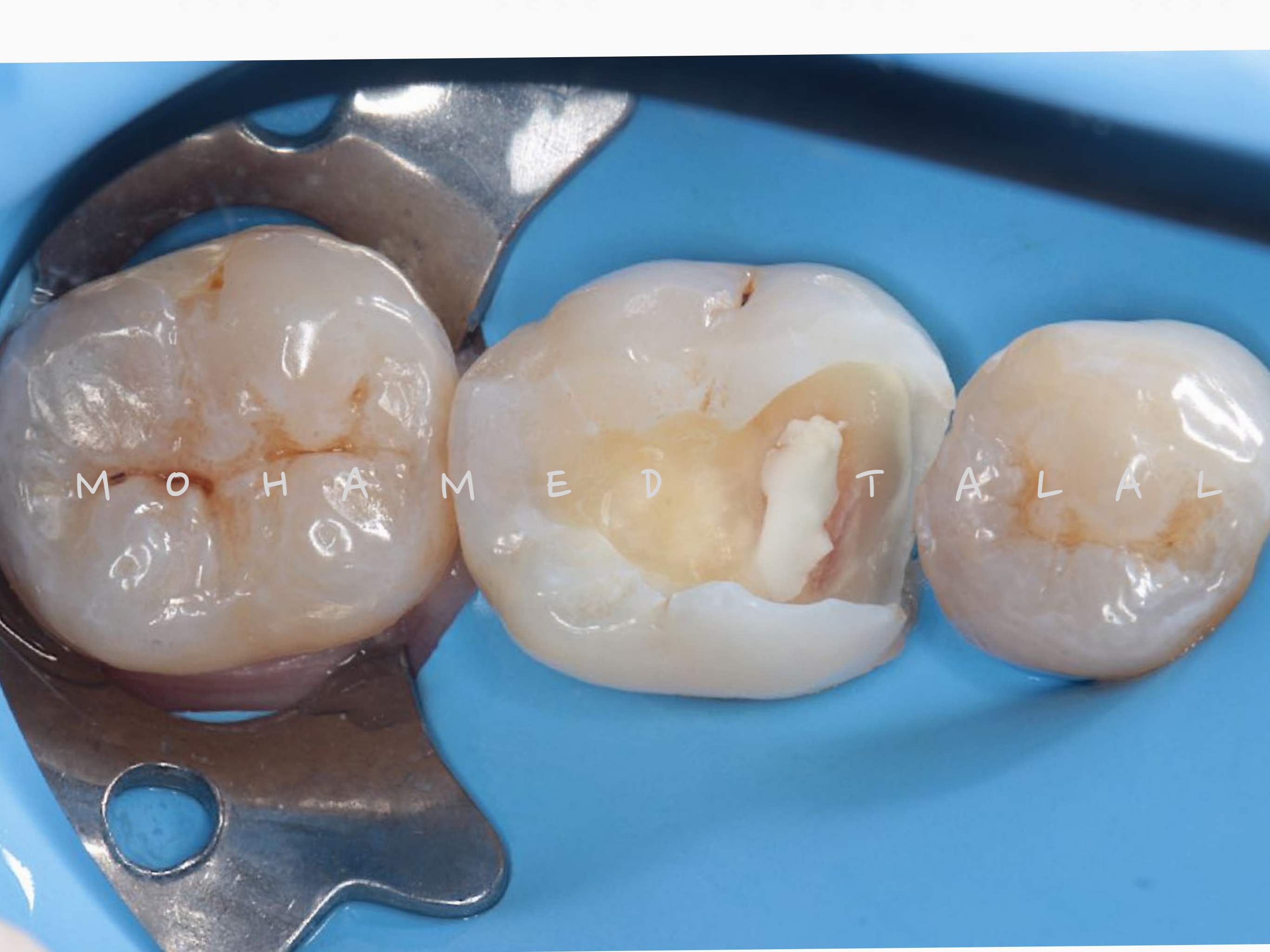


MOHAMMED TALLAL



M O H A M M E D T A L A L





M O H A M M E D T A L A L



M O H A M M E D T A L A L



M O H A M E D T A L A L



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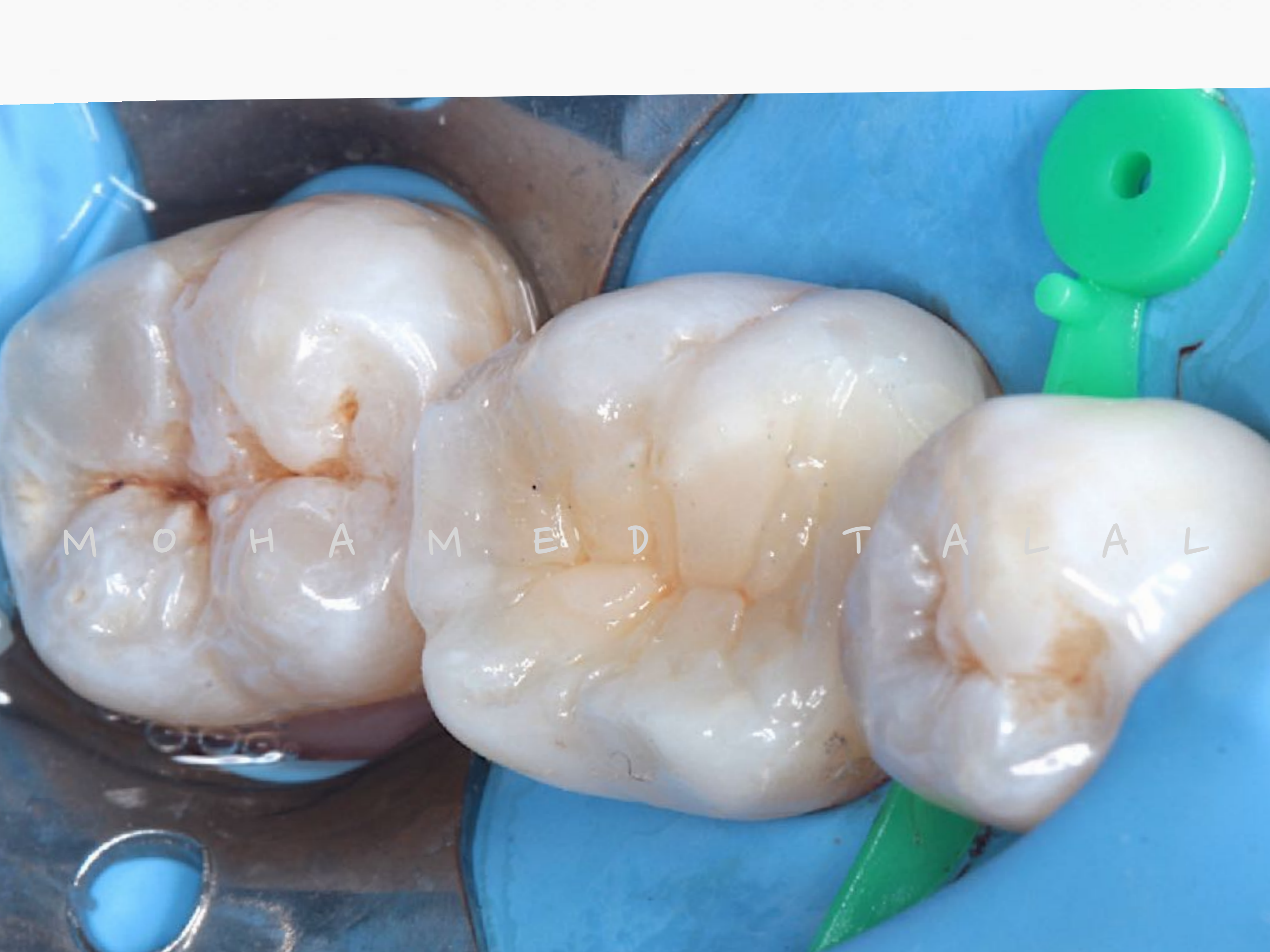


M O H A M M E D T A L L A L



M O H A M M E D T A L A L





M O H A M M E D T A L A L





M O H A

M E D

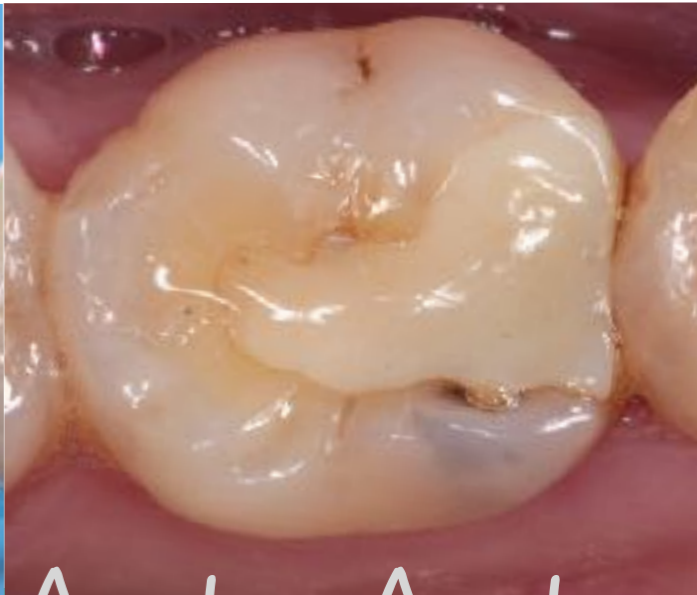
T A L A



M O H A M M E D T A L A L



M O H



A M E D T A L A L



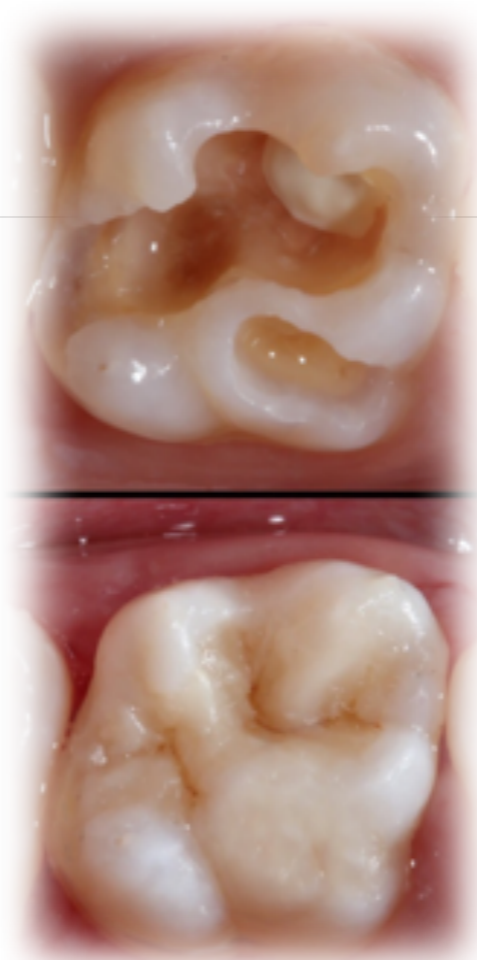
*Handwritten signature*

# Cavity preparation





**shallow..**



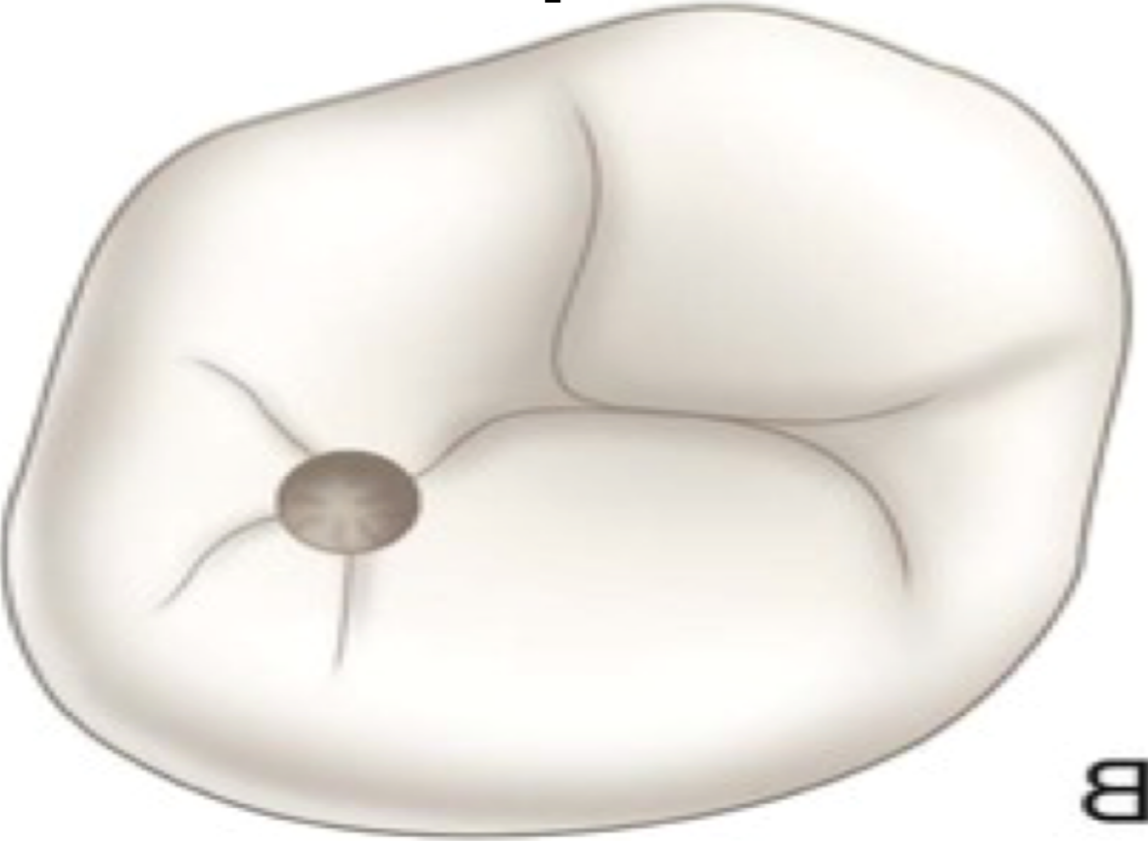
**Direct  
capping..**



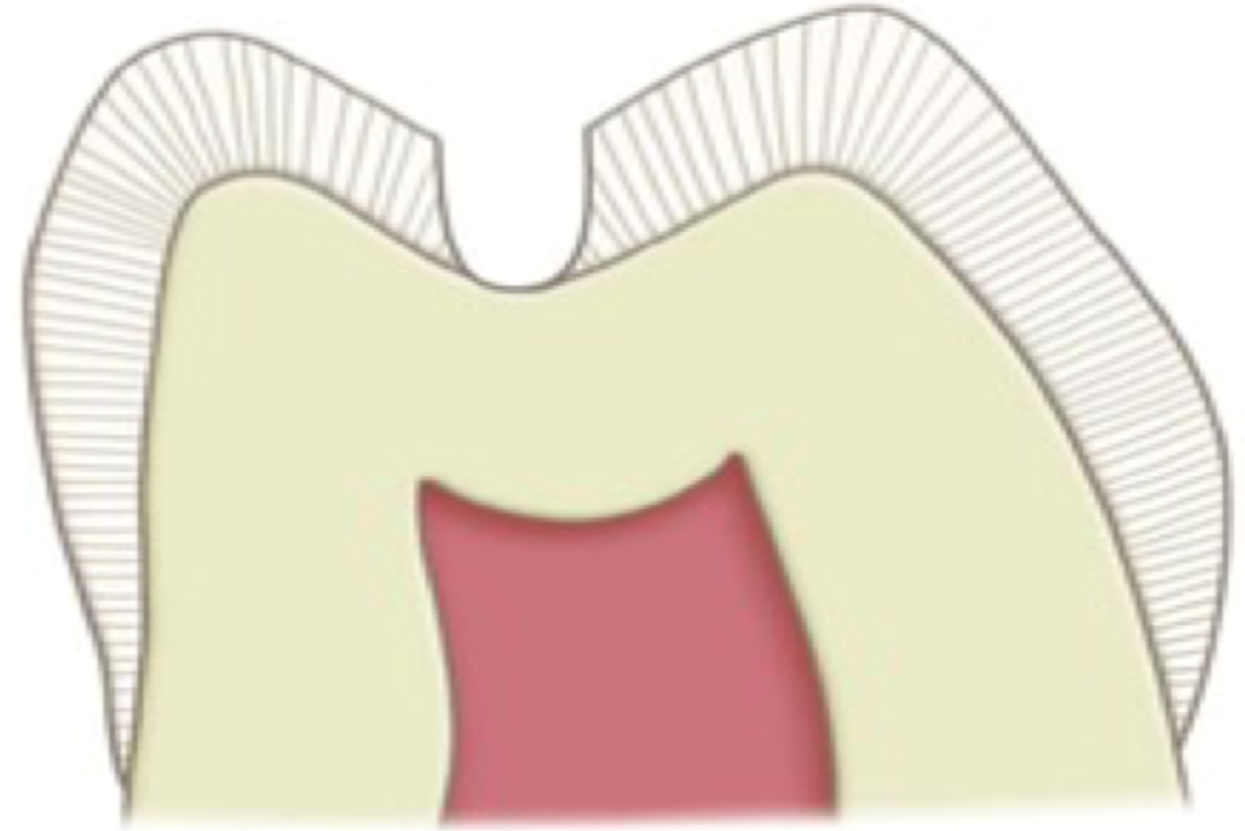
**Indirect  
capping..**



**class 1 lesions** scooped out appearance  
with small round bur The pulpal floor  
not flat  
No ext. for prevention.



B



• When only **proximal box** is carious and no lesion in occlusal surface

1. **BOX ONLY** preparation



# 2- Slot technique

## C I III design









# Isolation and bonding

A close-up photograph of a hand being washed under a stream of water. The water is splashing, creating many small droplets and bubbles. The hand is positioned on the right side of the frame, and the water is flowing from the top towards the bottom. The background is a light, textured surface, possibly a sink or shower floor.

# Isolation and bonding

*Dental Materials Journal* 2014; 33(4): 646–650

## Effect of artificial saliva contamination on adhesion of dental restorative materials

Kisaki SHIMAZU<sup>1</sup>, Hiroyuki KARIBE<sup>1</sup> and Kiyokazu OGATA<sup>1,2</sup>

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<sup>2</sup>Division of Dentistry, Tokyo Metropolitan Children's Medical Center, 2-9-22 Musashidai Fuchu-shi, Tokyo 103-8501, Japan  
Corresponding author: Kisaki SHIMAZU; E-mail: kisaki-s@ky.ndu.ac.jp

The purpose of this study was to evaluate the effects of artificial saliva contamination on three restorative materials, namely, a glass ionomer cement (GIC), a resin-modified GIC (RMGIC), and a composite resin (CR), for which two different etching adhesive systems were used. Thus, three surface conditions were created on bovine teeth using artificial saliva: control, mild saliva contamination, and severe saliva contamination. The dentin bond strength for CR was significantly lower after artificial saliva contamination. There were, however, no significant differences among the three surface conditions in terms of the dentin and enamel bond strengths of GIC and RMGIC. Moreover, CR exhibited significantly greater microleakage after artificial saliva contamination, whereas no significant differences were found in GIC and RMGIC. The results showed that artificial saliva contamination did not affect the shear bond strengths of GIC and RMGIC or their degree of microleakage.

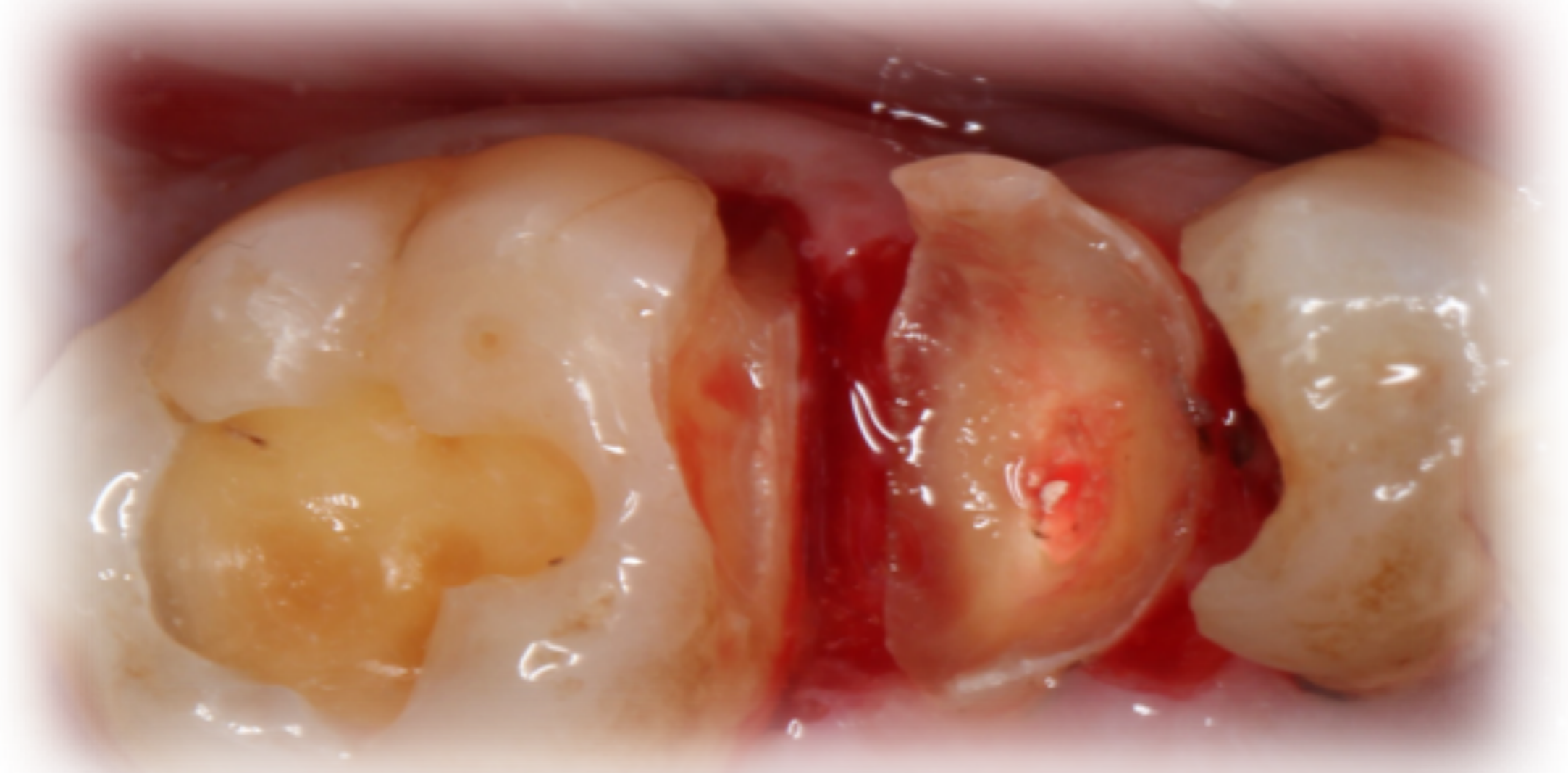
**Keywords:** Saliva contamination, Glass ionomer cements, Composite resins, Bond strength, Microleakage

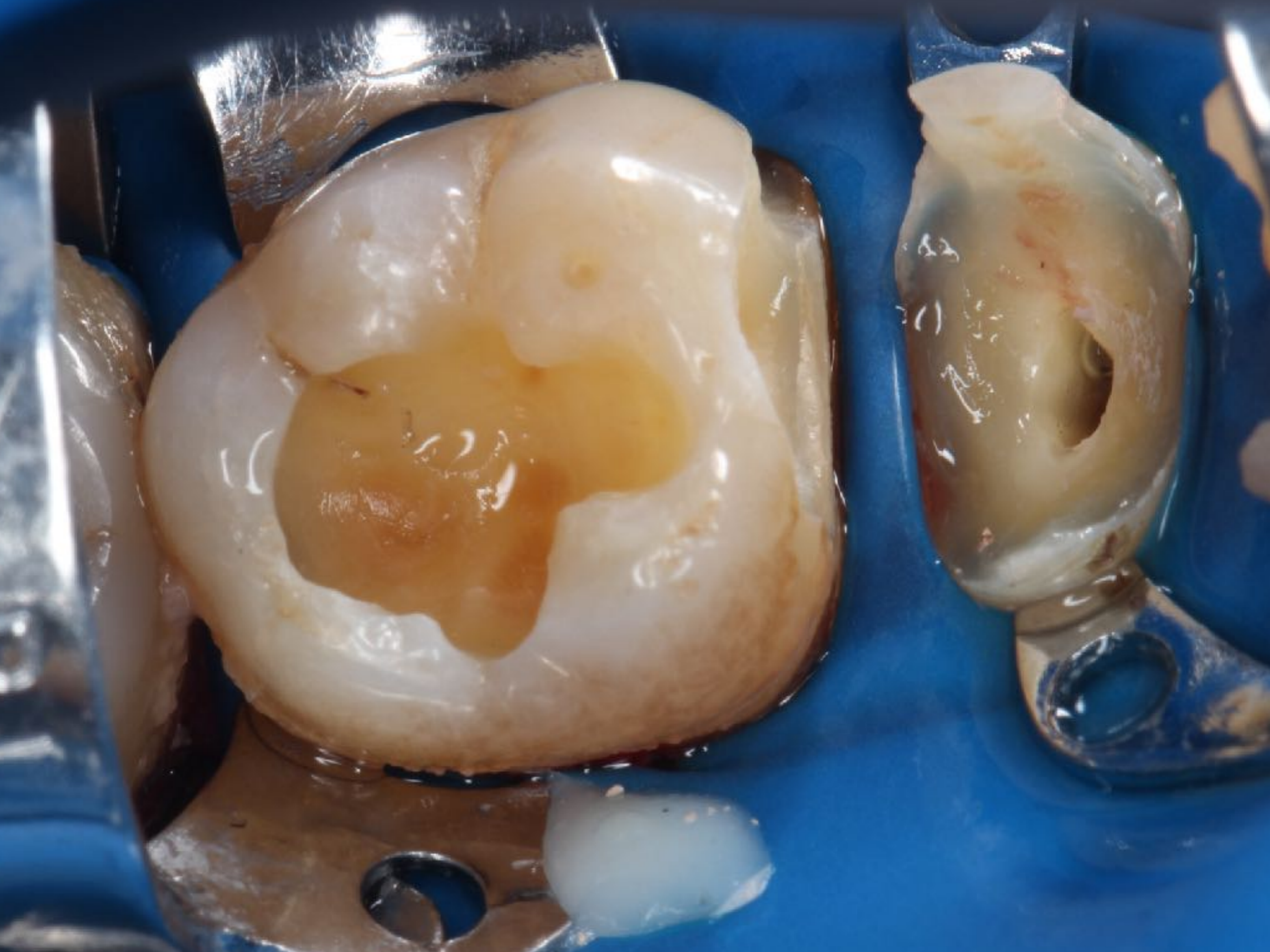
## CONCLUSIONS

On the basis of the results of the study, the following conclusions were drawn:

1. Contamination with artificial saliva does not affect the shear bond strengths of GICs and RMGICs; this is true for both bovine enamel and dentin.
2. The bond strength of CRs with bovine dentin is reduced significantly when a total-etching adhesive or a self-etching primer is used and the restorations are subjected to contamination with artificial saliva.
3. The microleakage in the case of cavities whose bovine enamel margin is filled with a GIC or an RMGIC does not increase under artificial saliva contamination after thermocycling.















# Enamel and dentin bonding agent

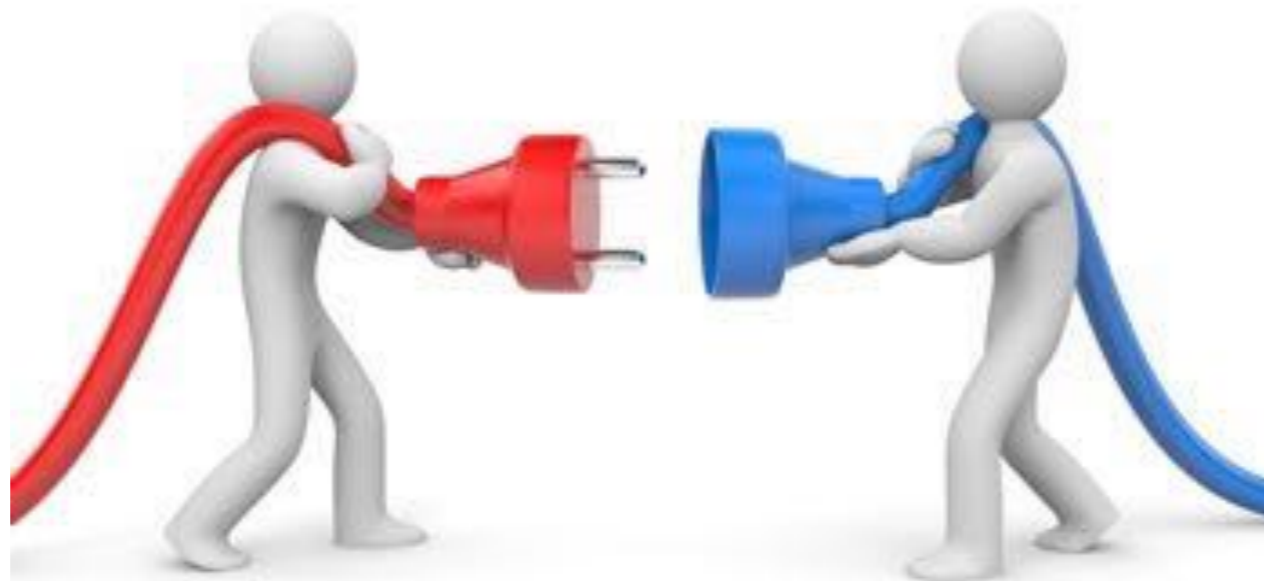
By





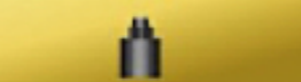





**Dr. MOHAMMED TALAL**

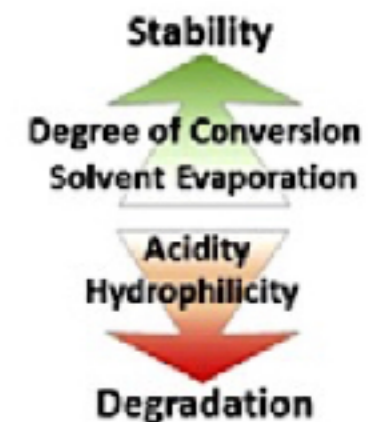
Van Meerbeek B, Yoshida Y, Lambrechts P, Vanherle G, Duke ES, Eick JD, Robinson SJ. J Dent Res 1998;77:50-59  
Gary Alex, DMD, Is total-etch dead? Evidence suggests otherwise; Compendium of Continuing Education in Dentistry, January 2012

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# Adhesive agents

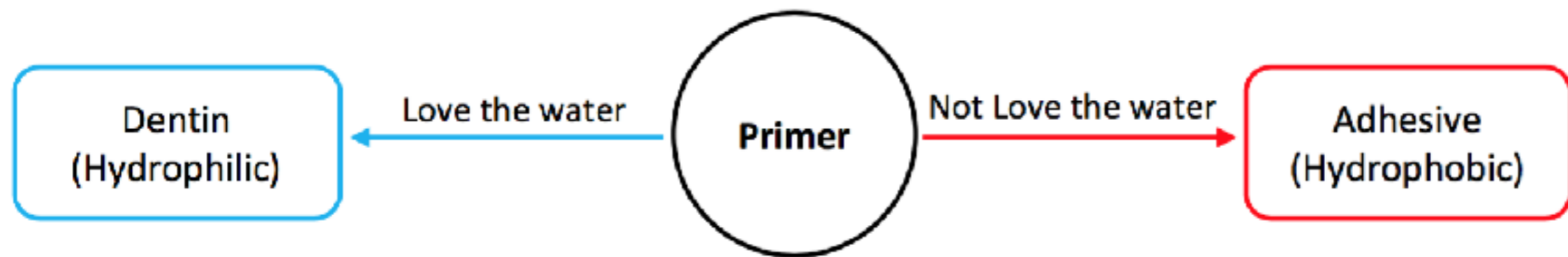


Contemporary Dental Adhesive Systems					Characteristics		Longevity
System Mode	Delivery	Adhesion Steps			Acidity	Hydrophilicity	Bond Stability <sup>b</sup>
		Etching	Primer	Adhesive			
Etch-and-rinse	3-step				+	+	++++
	2-step				++	++	+++
Self-etch	2-step				+++	++	++++
	1-step				++++	+++	+
Universal	1 or 2 steps <sup>a</sup>				+++	++	+(+) +



**Fig. 1.** Current contemporary dental adhesives systems and characteristics affecting the long-term stability of dentin–resin interfaces. Symbol (+) indicates scale ranging from lowest (+) to highest (++++). <sup>a</sup> The adhesive system support optional pre-etching of enamel or dentin (2- step) or self-etching mode (1-step). <sup>b</sup> Depicts relative values of dentin bond strength, note that average bond strengths can greatly vary among brands, studies and application modes (for universal systems). Degree of conversion = polymerization rates of adhesive.





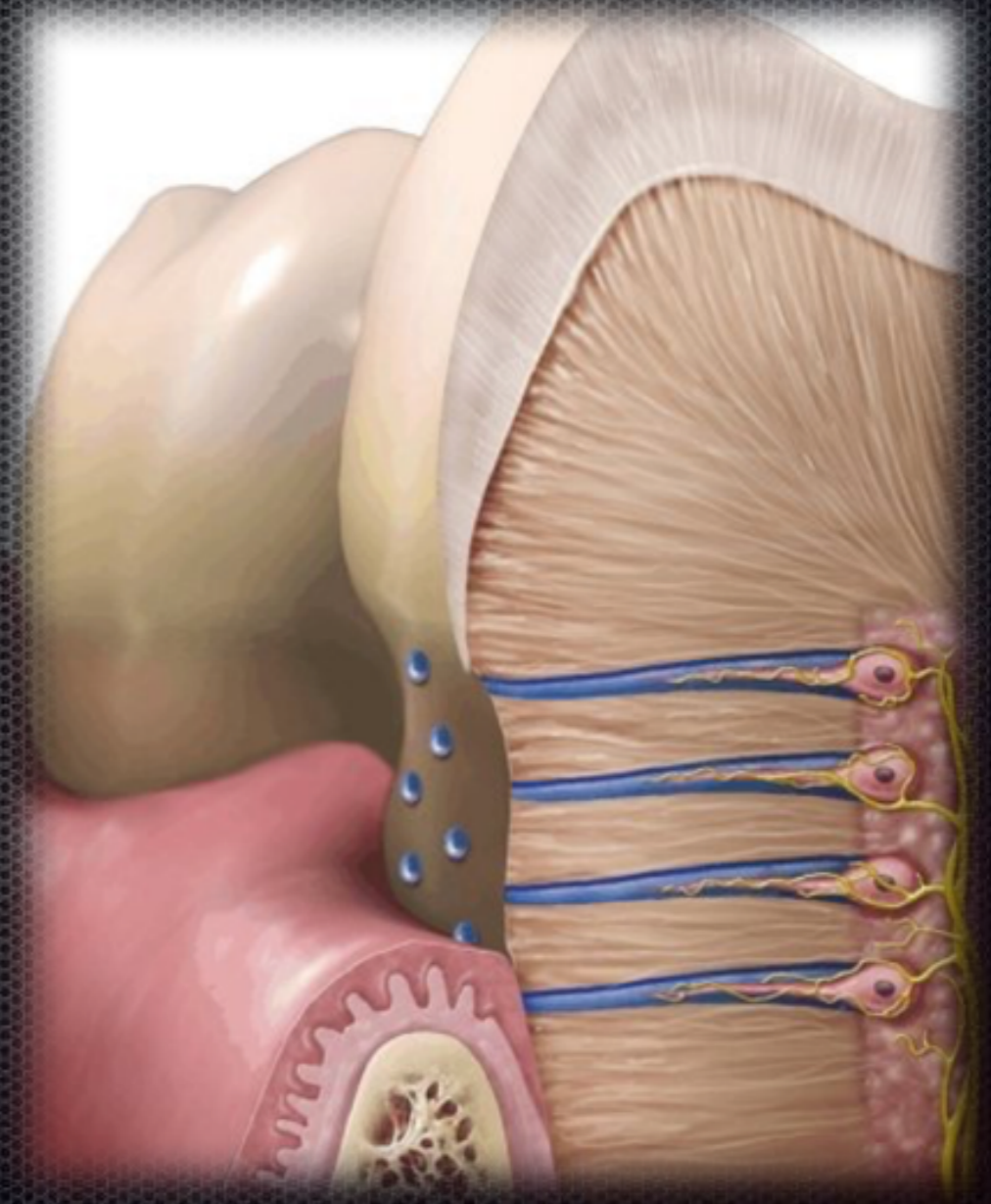
# Etching



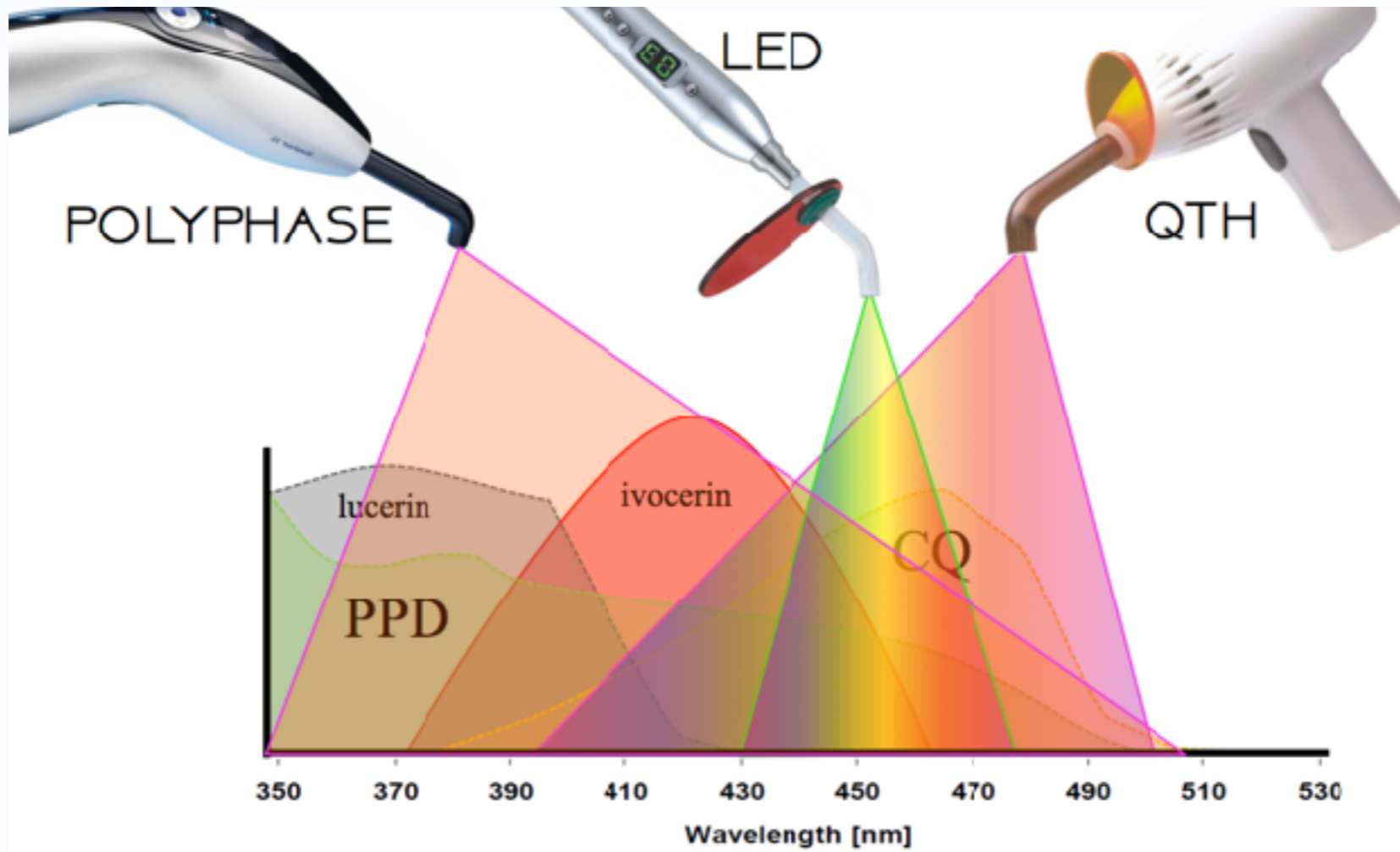


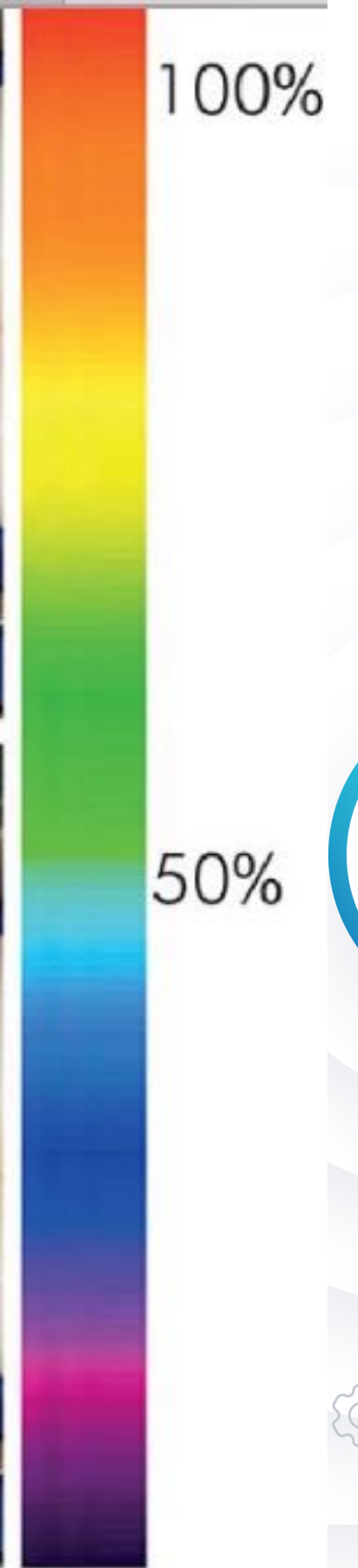
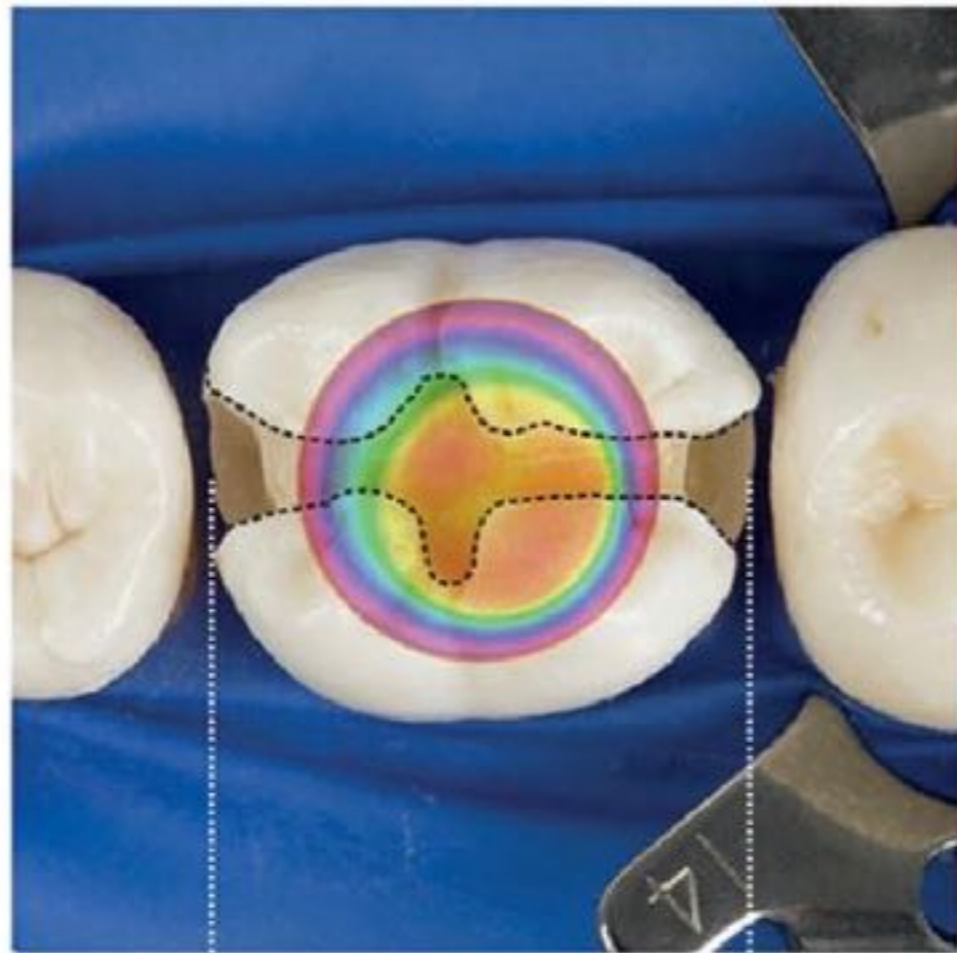
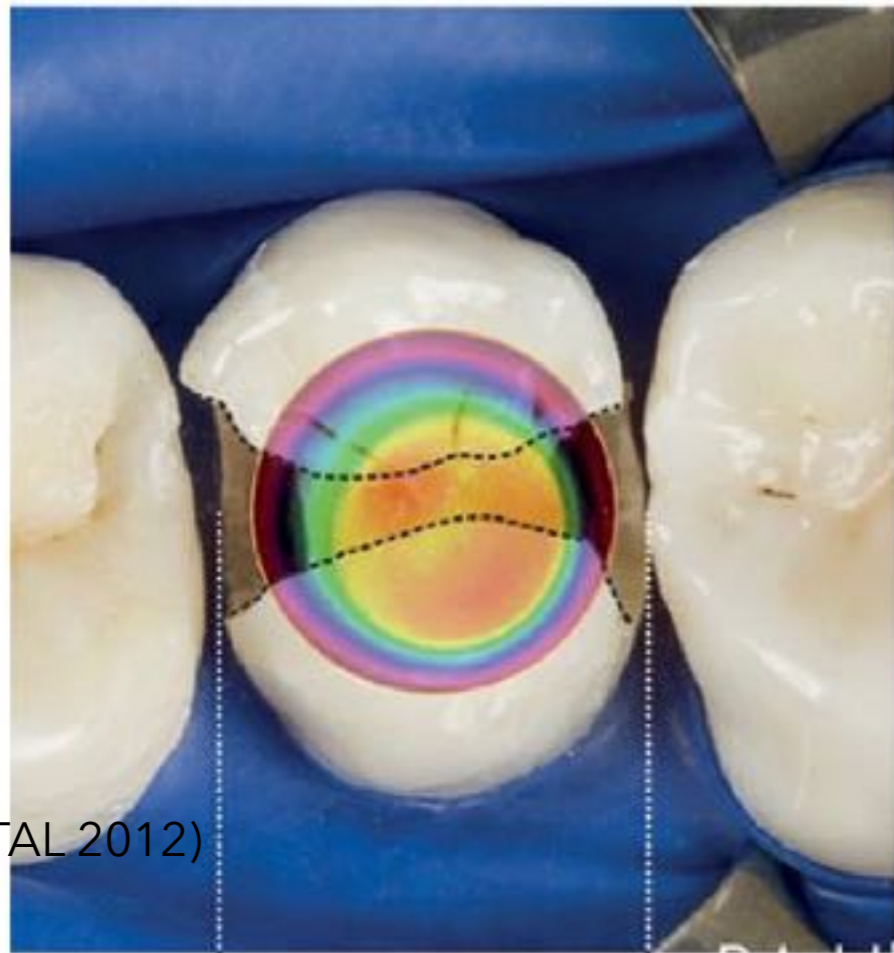
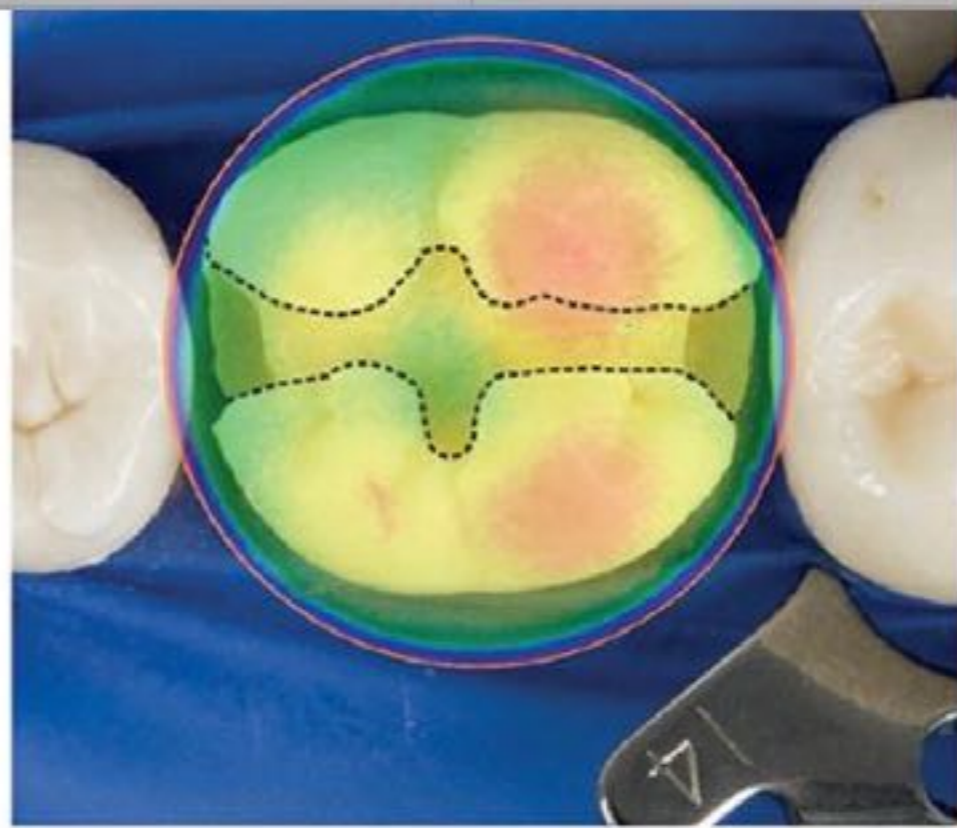
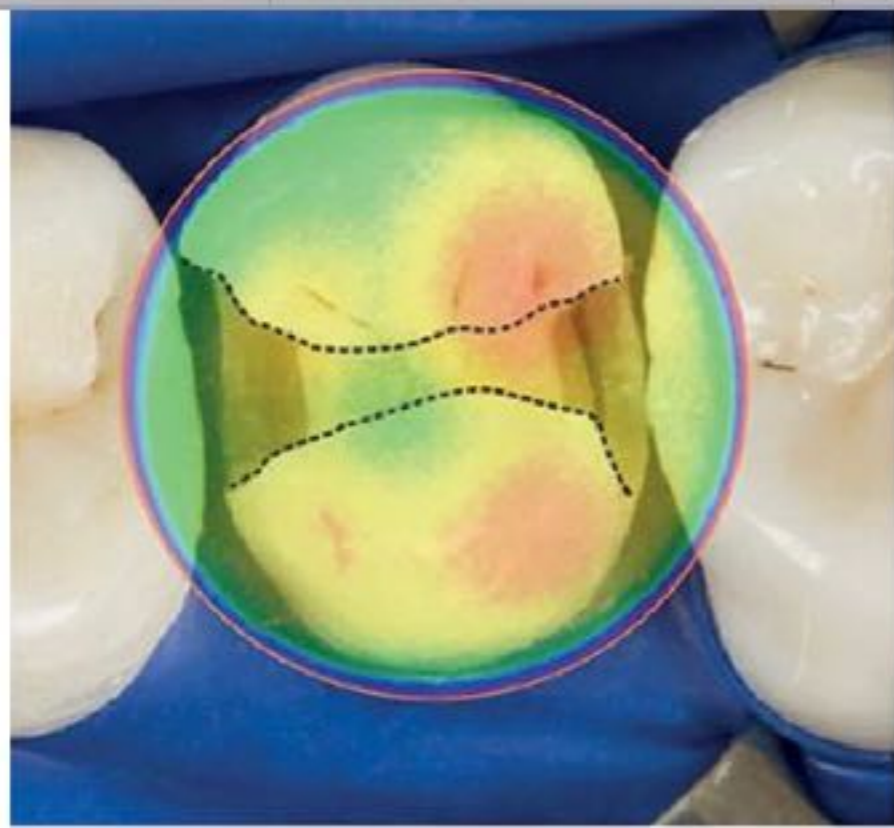
what about  
sensitivity?

**NO LINING..**



# LIGHT CURING DEVICE SELECTION ..





8 mm

10 mm

0%

LEENDERT ETAL 2012)

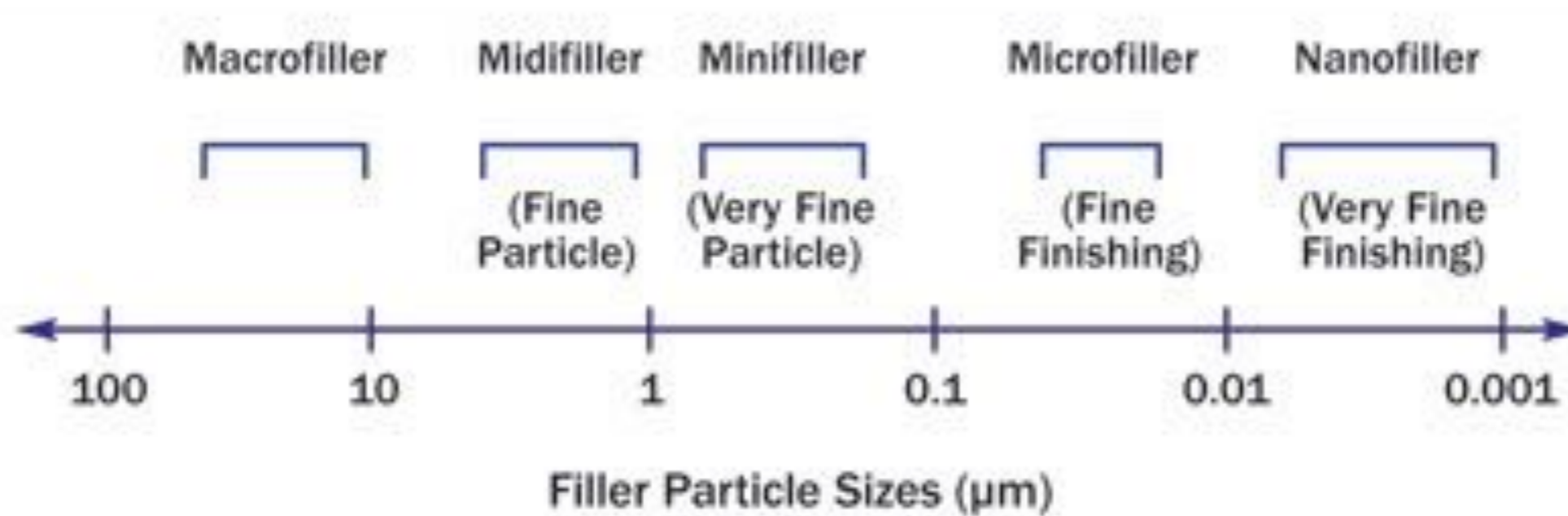


Slide Name64



# POST. COMPOSITE APPLICATION

# 4 Types Of Compo





Opacity of Composite Resin

Filler Content of the Composite

Elastic Modulus of the Material

Cavity Configuration

Curing Characteristics of the Composite Resin

Water Sorption

Type of Resin Monomer

Intensity of the Light



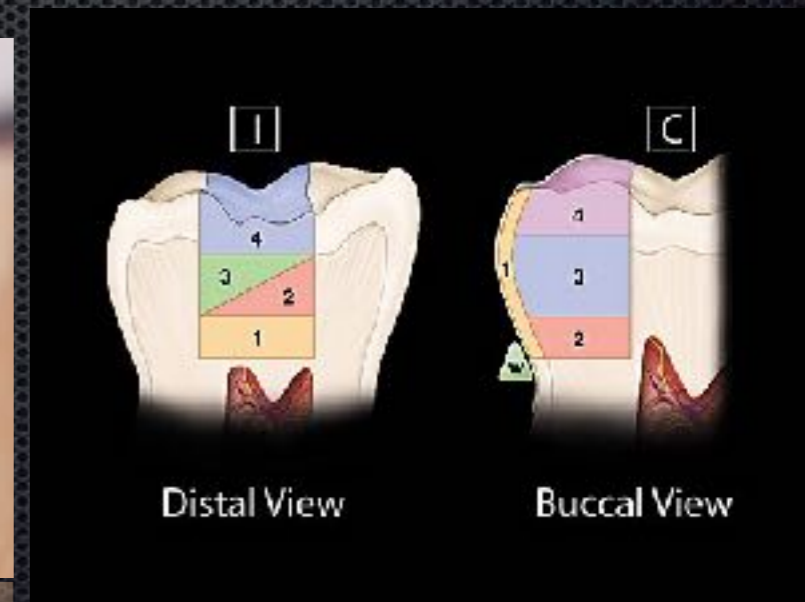
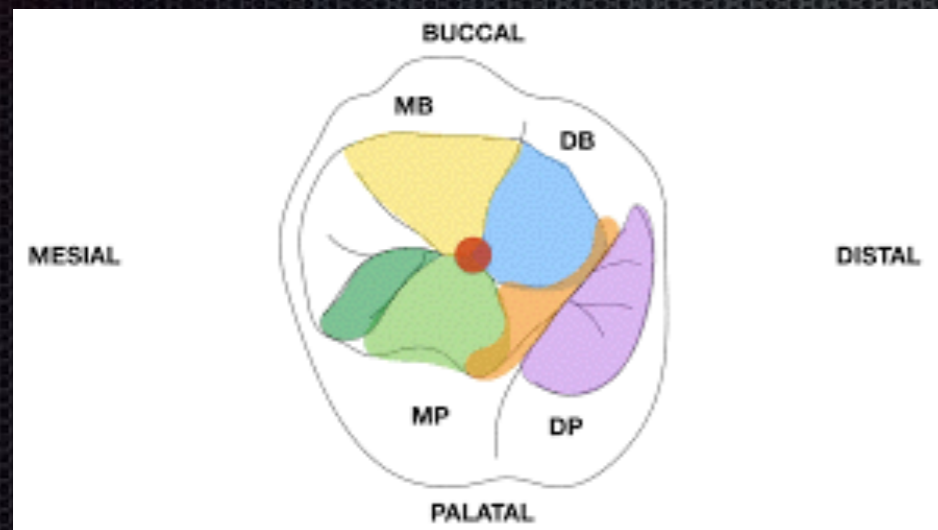
**INFLUENCING FACTORS FOR POLYMERIZATION SHRINKAGE**

# METHODS :

VERTICAL

HORIZONTAL

OBLIQUE

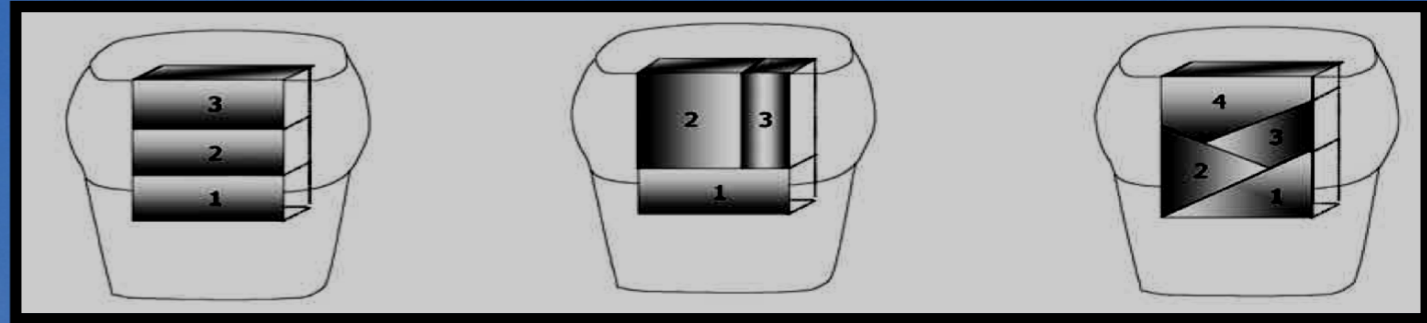


DISTAL VIEW

BUCCAL VIEW

# What are the Placement techniques of direct posterior restoration?

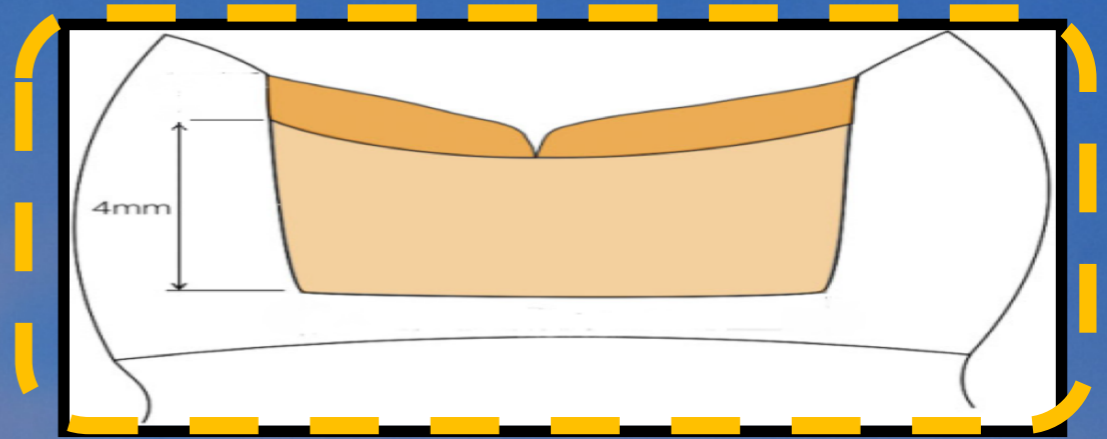
I. The Layering Technique:  
Horizontal, vertical and oblique



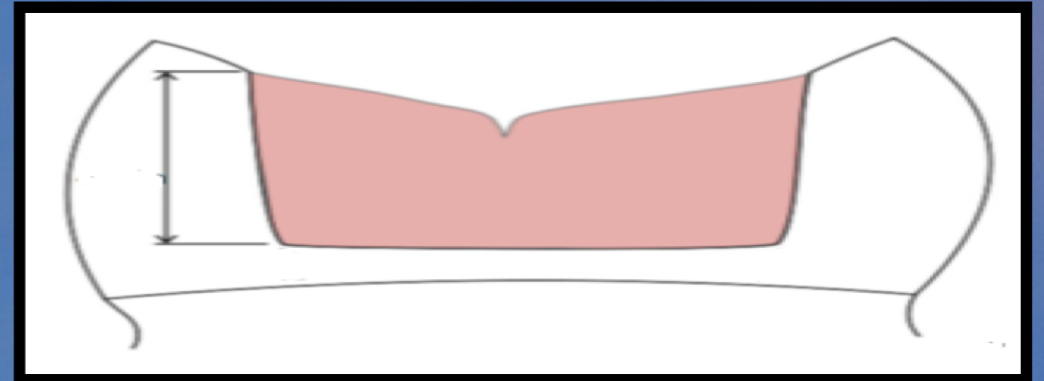
II. Two-steps amalgam-like technique (Bulk-fill flowable and regular composite):

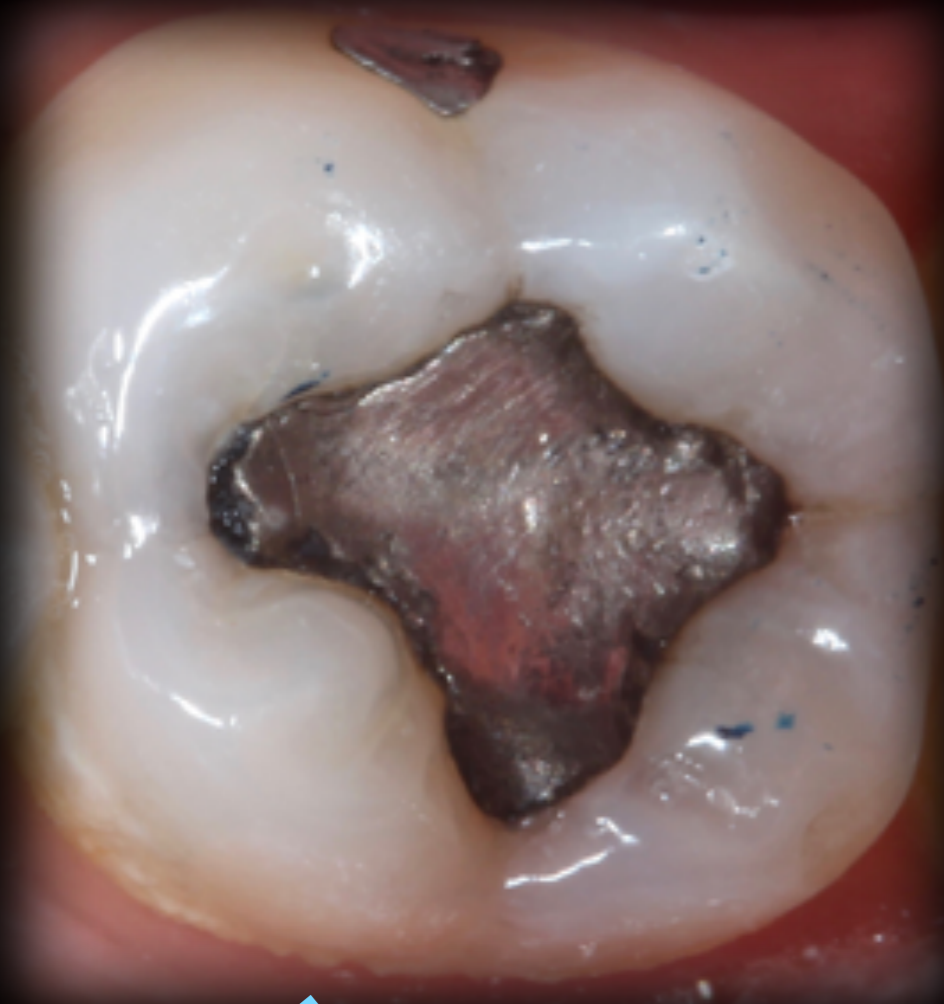
The presence of **Stress Relief Monomers**

Specific **Photoinitiators**

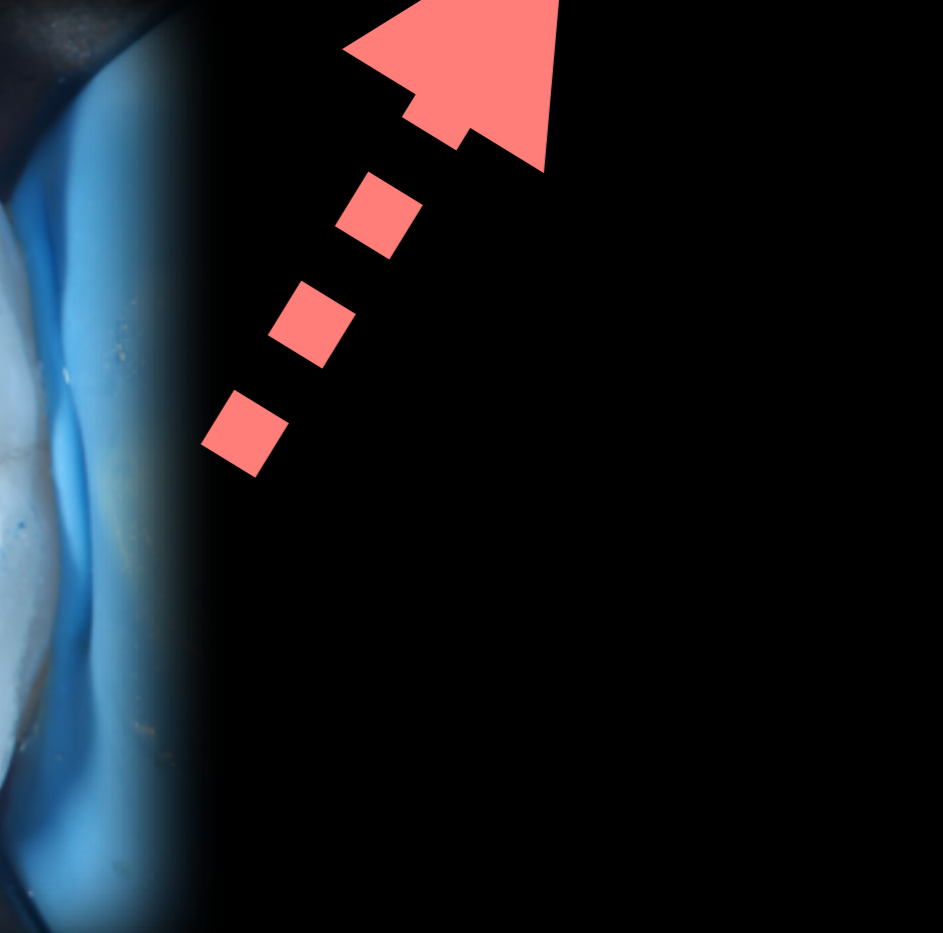


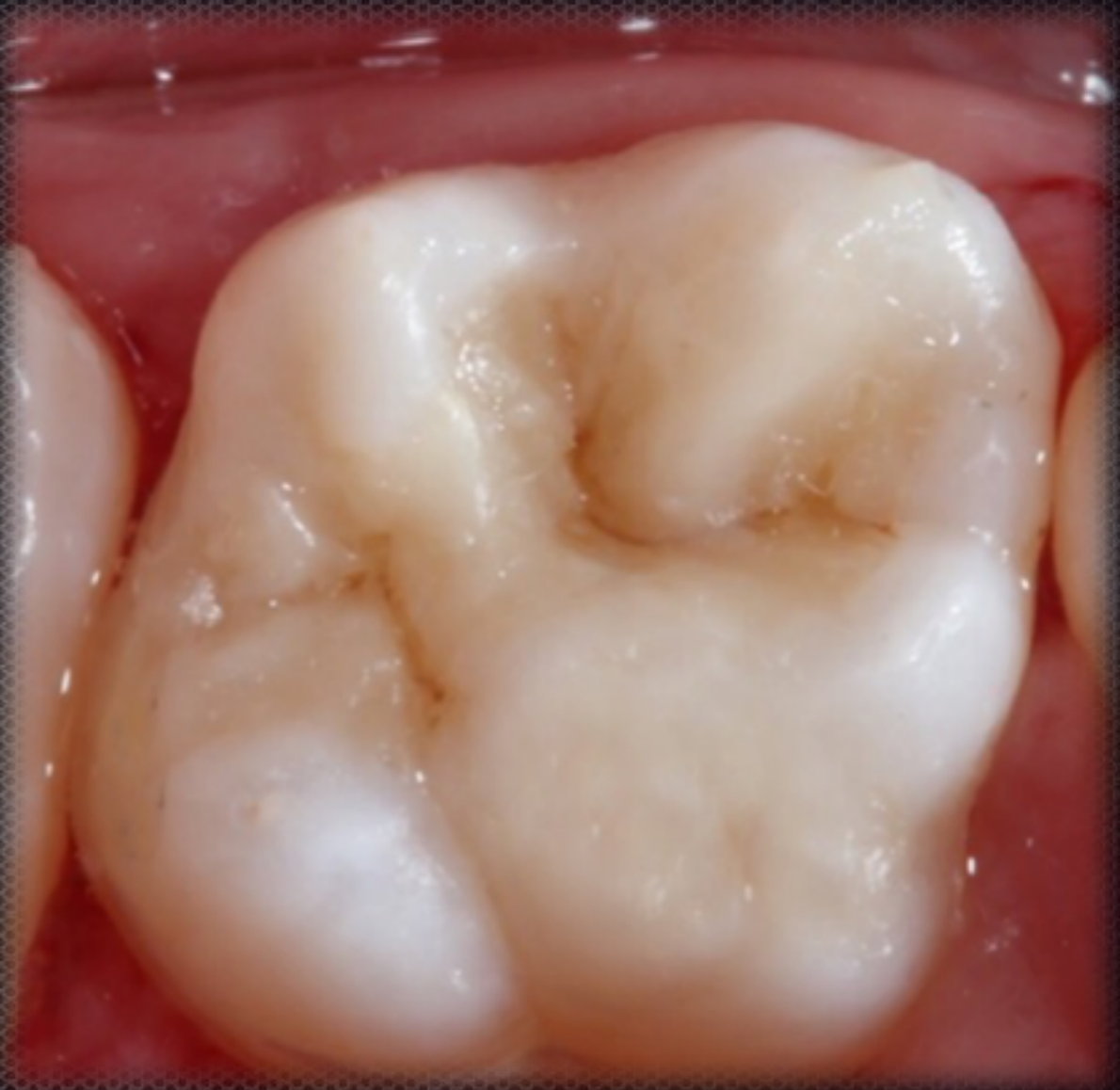
III. Single-step amalgam-like technique (Bulk-fill regular composite)



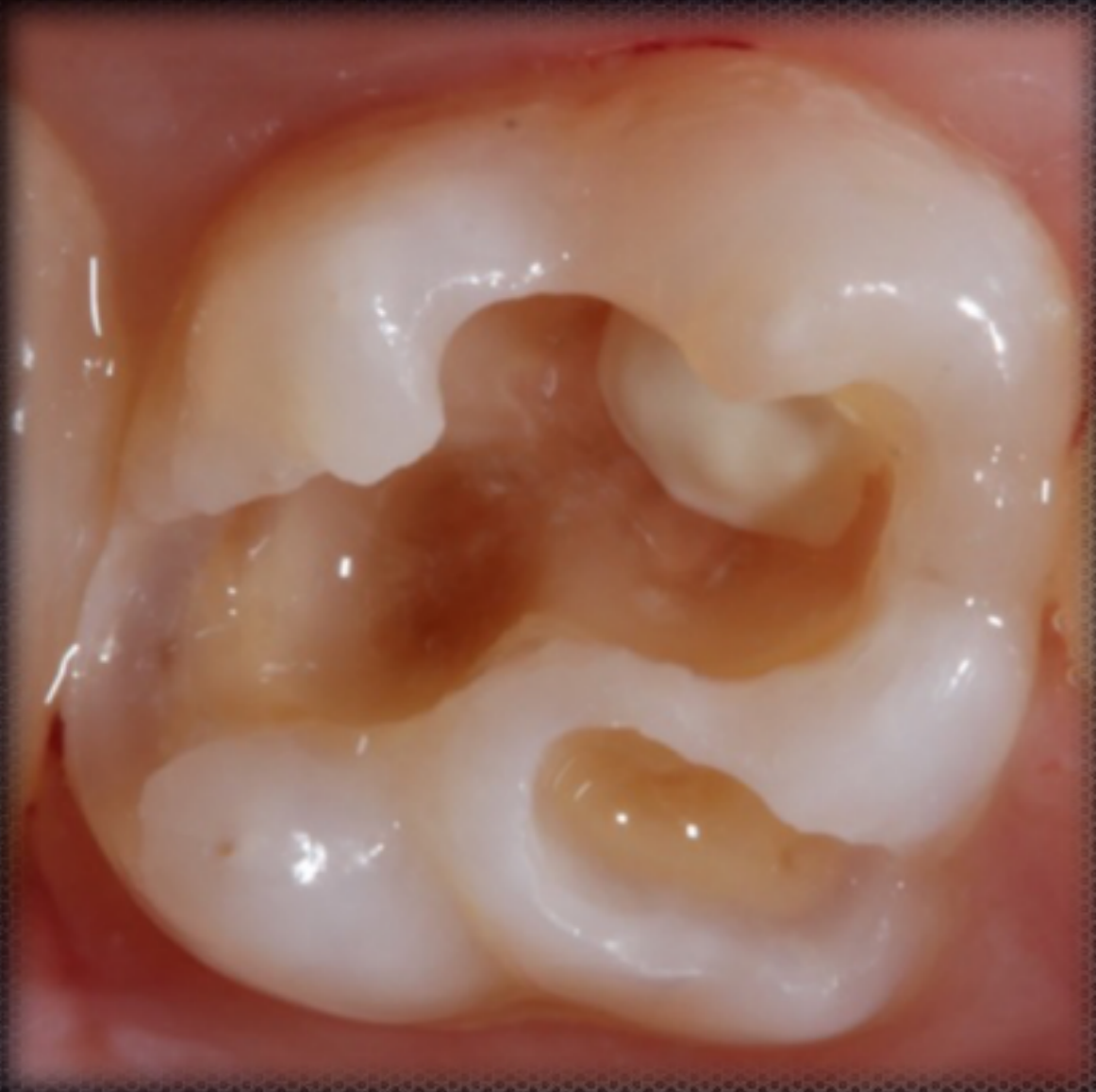


simple ..

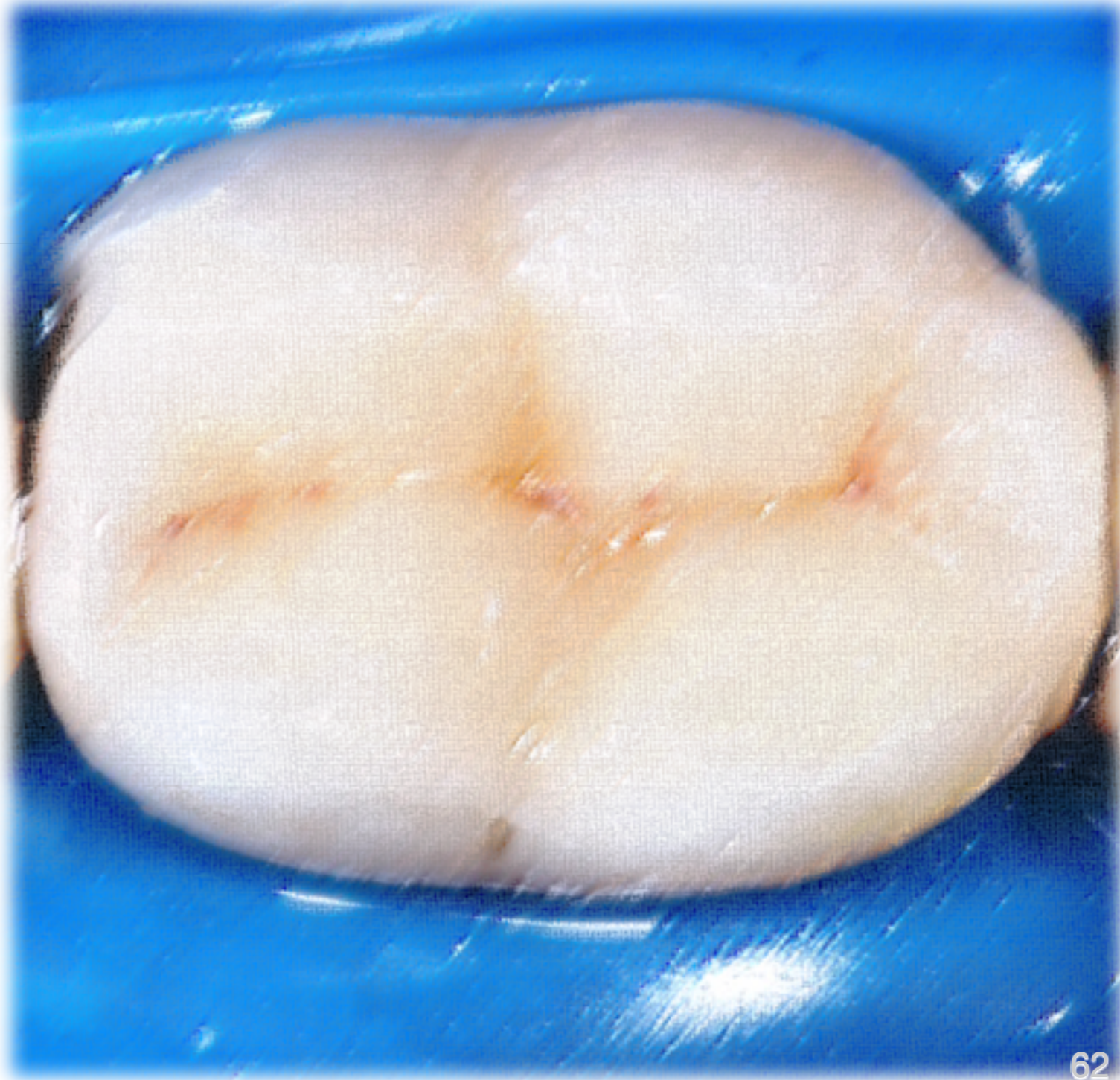




**30 minutes**



# Horizontal Tech.



**Which one is better ??**



# TO OBTAIN AN ARTISTIC FILLING YOU SHOULD HAVE

- ✦ **Experience**
- ✦ **Facilities (Loupes, Instrument And Materials)**
- ✦ **Time**
- ✦ **Assistant**





# MAGNIFICTIONS



See what  
you've been  
missing!

...into the darkness  
...and swam  
...quickly warmed  
...her back and  
...living body  
...relief and  
...had  
...the red  
...tiredly. New  
...lung  
...the ones be  
...at  
...and the

...day, rain w  
...before, the g  
...over, the bed  
...could  
...a short time befo  
...a sense of  
...Soon the journe

...died over the edge  
...quickly jumped into  
...ivering and cold  
...heating the bed  
...clothes clinging to  
...the warmth was a  
...days later. After  
...dooded along  
...most there" site  
...amount of  
...ing did not slow  
...er they were  
...one began to esse

...and still tired from  
...ere they began.  
...ook at time until  
...ecided to  
...telling  
...nger

# INSTRUMENTS

- ✦ BRUSHES
- ✦ FISSURA
- ✦ APPLICA
- ✦ CONDENSA
- ✦ MICRO BRUSHES



A close-up photograph of a person's teeth, showing the upper and lower arches. The teeth are white and appear to be in good health. A red, semi-transparent highlight is applied to the contact area between the upper and lower teeth, specifically on the central incisors. The text "CONTACT AREA" is overlaid in a bold, red, sans-serif font across the center of the image.

**CONTACT AREA**

# **BAND SELECTION**

# What about PROXIMAL CONTACTS?

- Properly contour the matrix band.
- Have the matrix in contact with the adjacent tooth.

## Avoid

- too thick matrix
- Changing of matrix position during placement and shaping

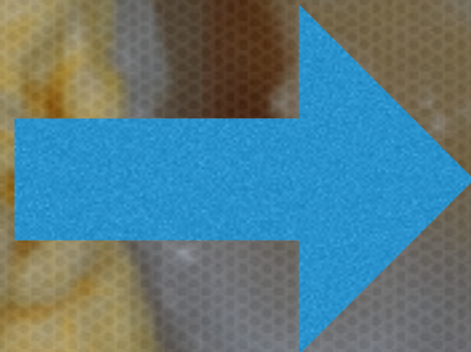


# How to obtain a contact area:

- Bands
- Matrix Retainer
- Wedges
- Teflon
- Skills And Proper Manipulation



*Important  
tip*



# MATRICES:

- ✦ **TOFFLEMIRRE**  
**(1,9)**





# SECTIONAL MATRIX



# • OMNI MATRIX



# TEFLON..



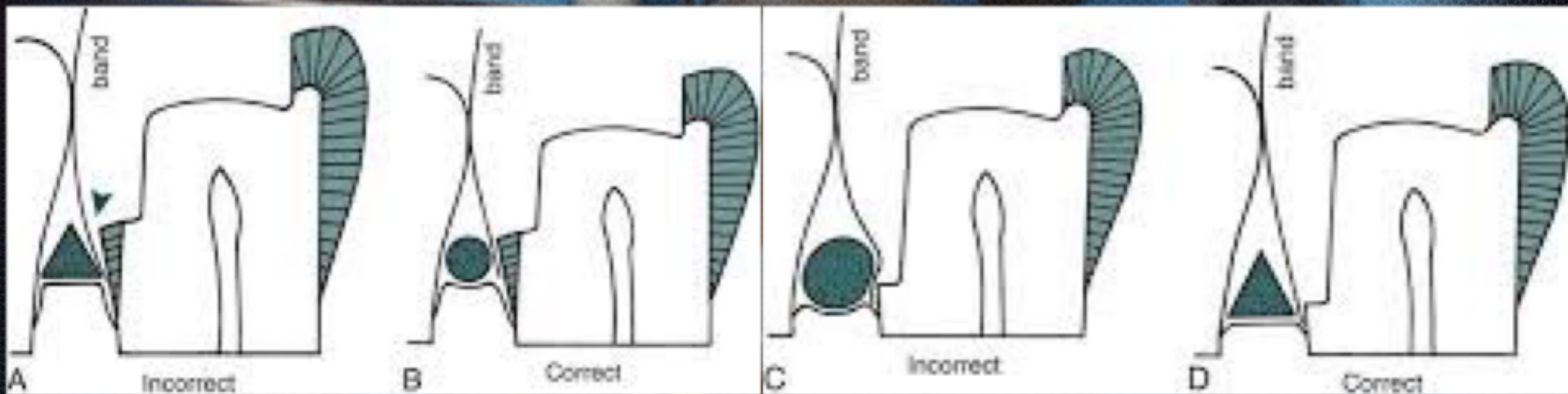
# WEDGES..

PLASTIC

WOODEN

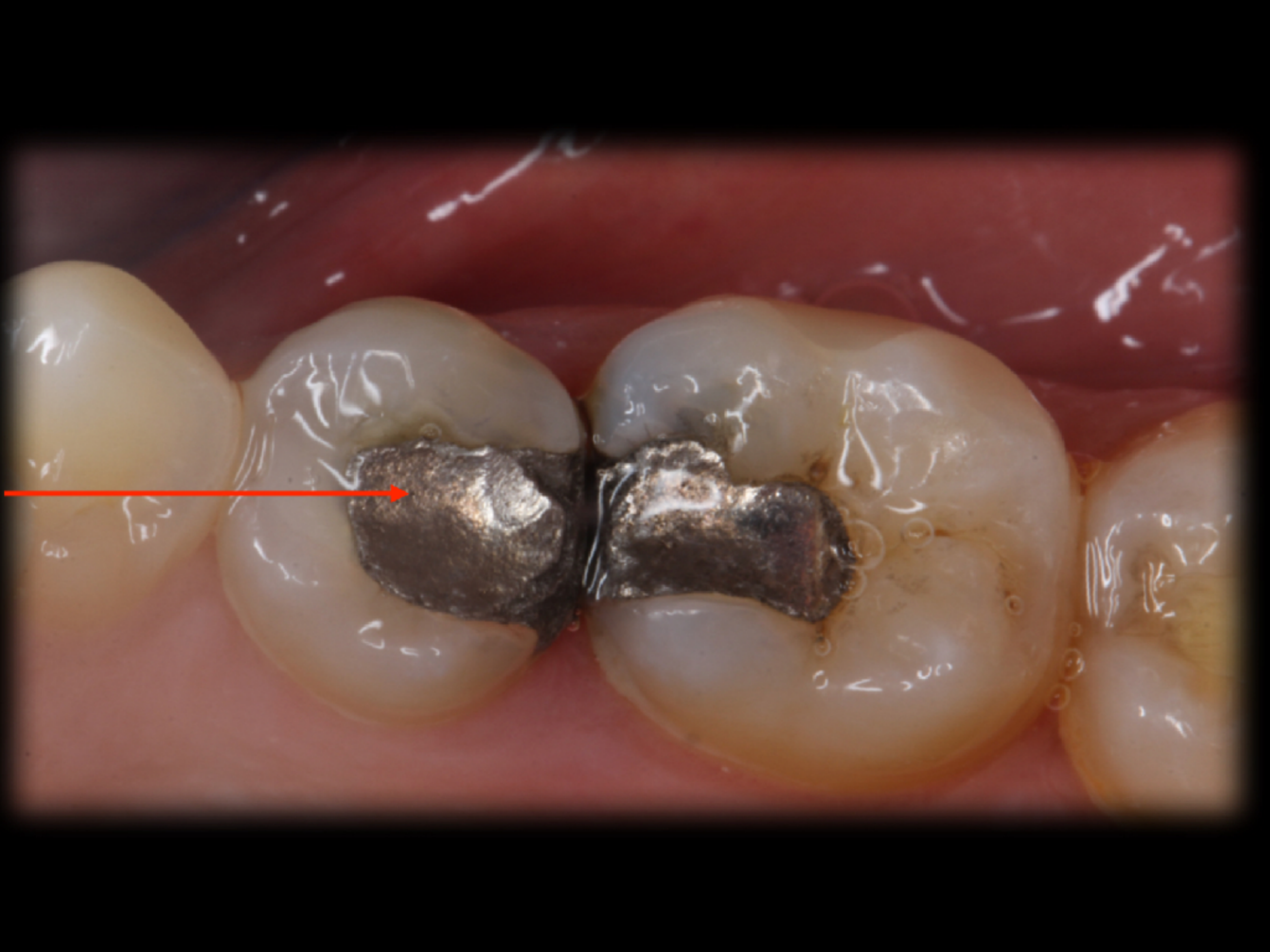


# THE LOCATION OF WEDGES ..



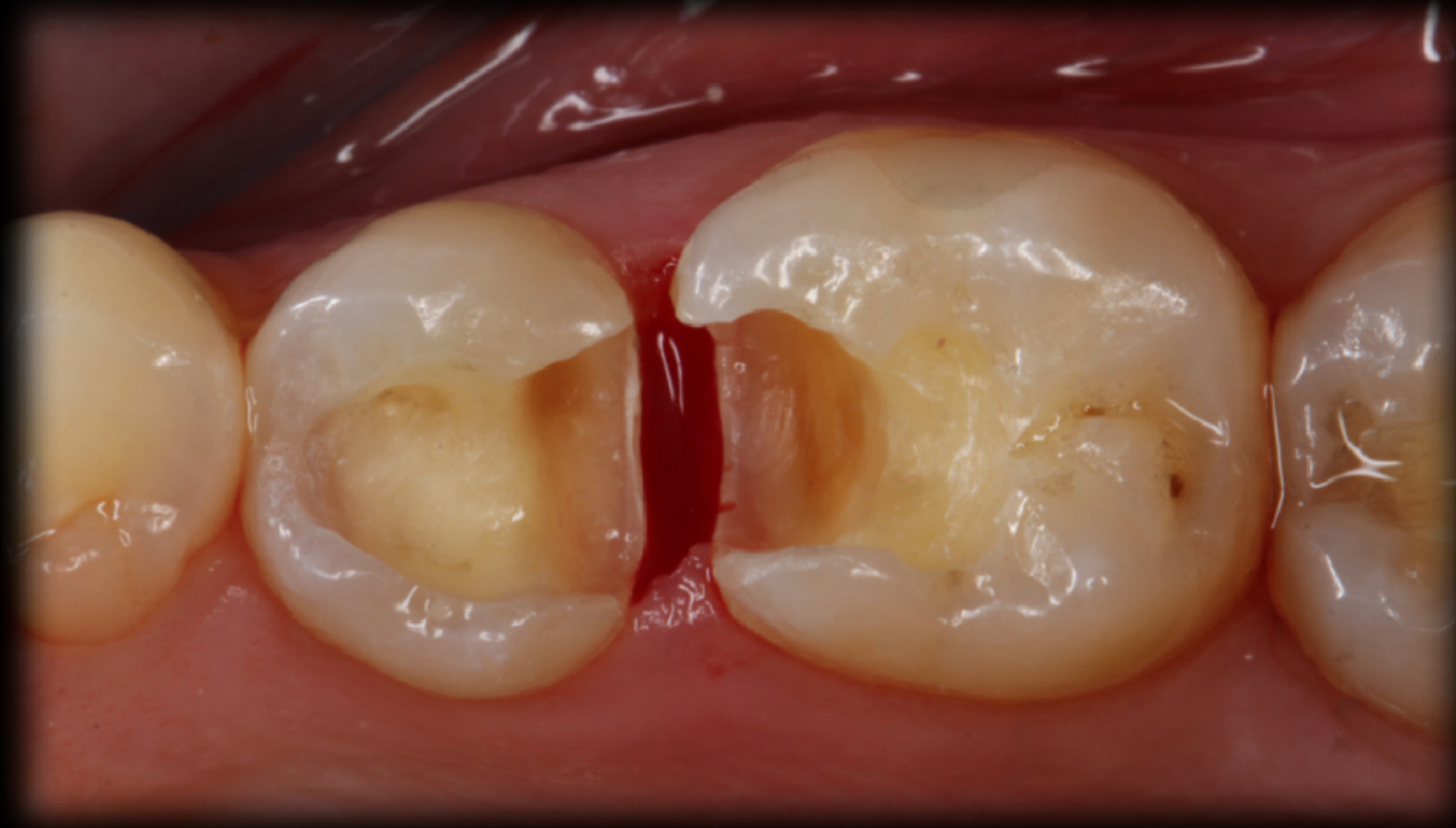
A close-up photograph of a person's teeth, showing the upper and lower arches. The teeth are white with some minor staining or discoloration. A red banner is overlaid across the middle of the image, containing the word "CASES" in white, bold, sans-serif capital letters.

# CASES



DEEP MARGINS WITH  
THERMAL CUTTED  
GINGIVA

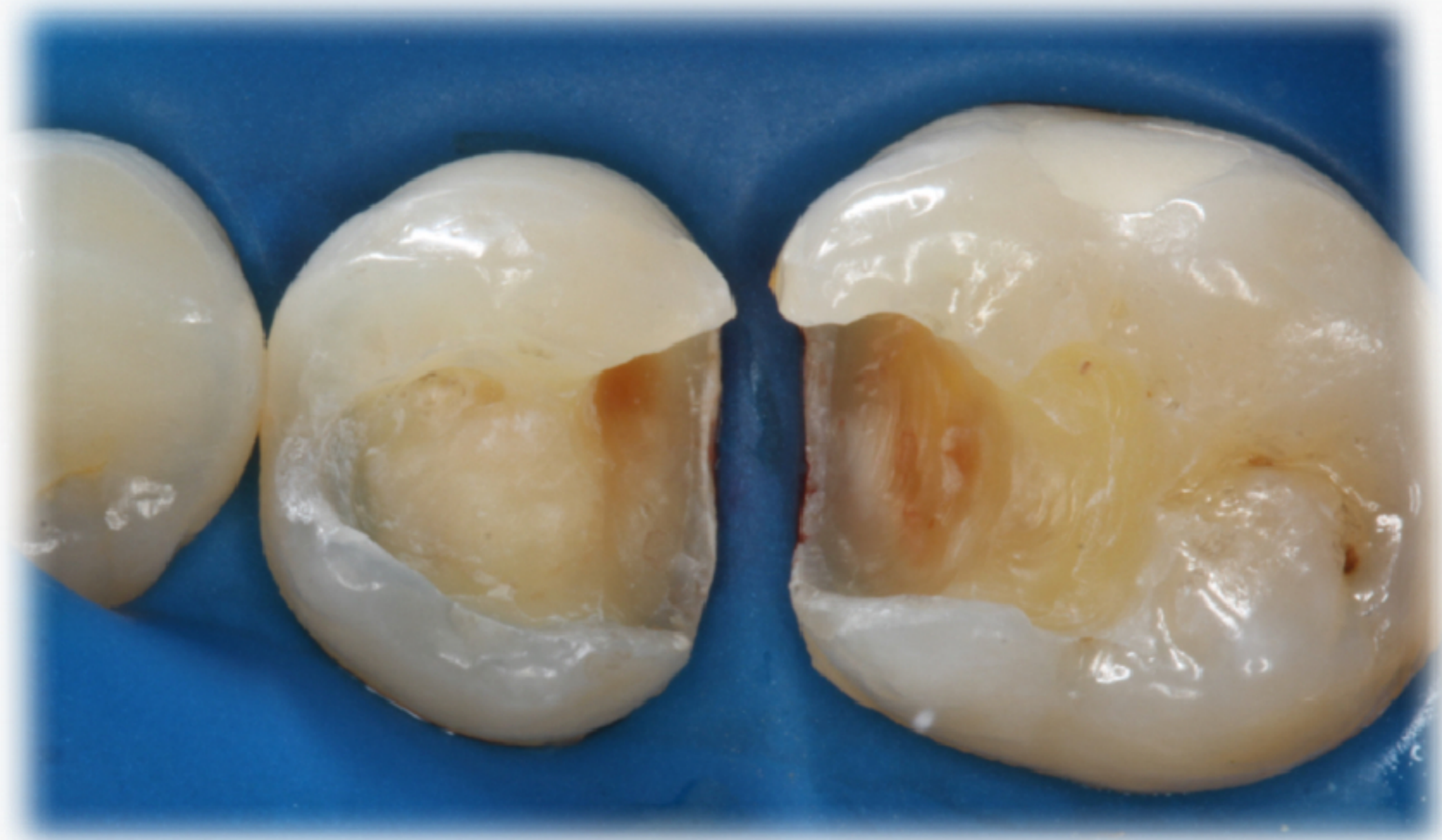
**3M**





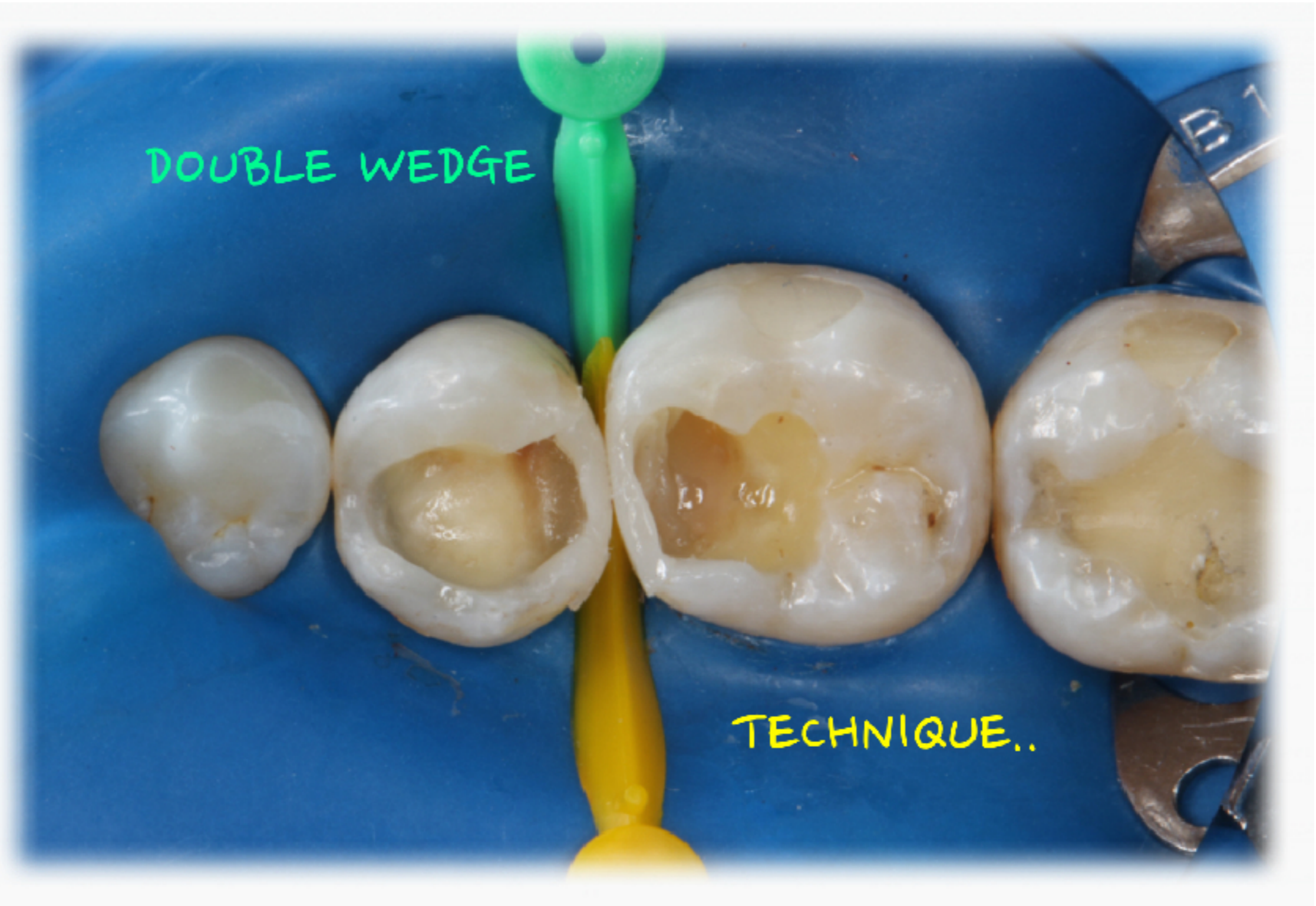
FLUID  
FIGHTER  
IN  
ACTION..

**3M**



THE WALLS  
CREATED..

3M



**3M**

THE MISSION IS  
DONE..



**3M**

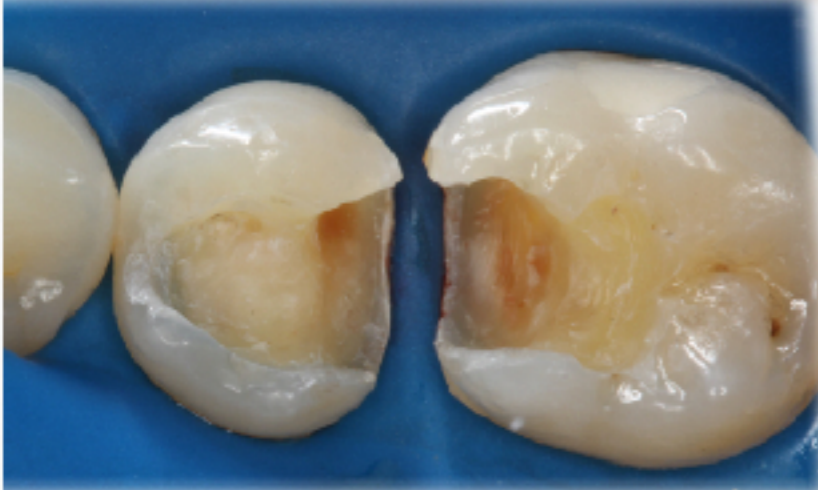
THE MISSION IS  
DONE..





THE 100 MINUTES  
GAME...





**3M**

*Signature*



# SIMPLE CL II



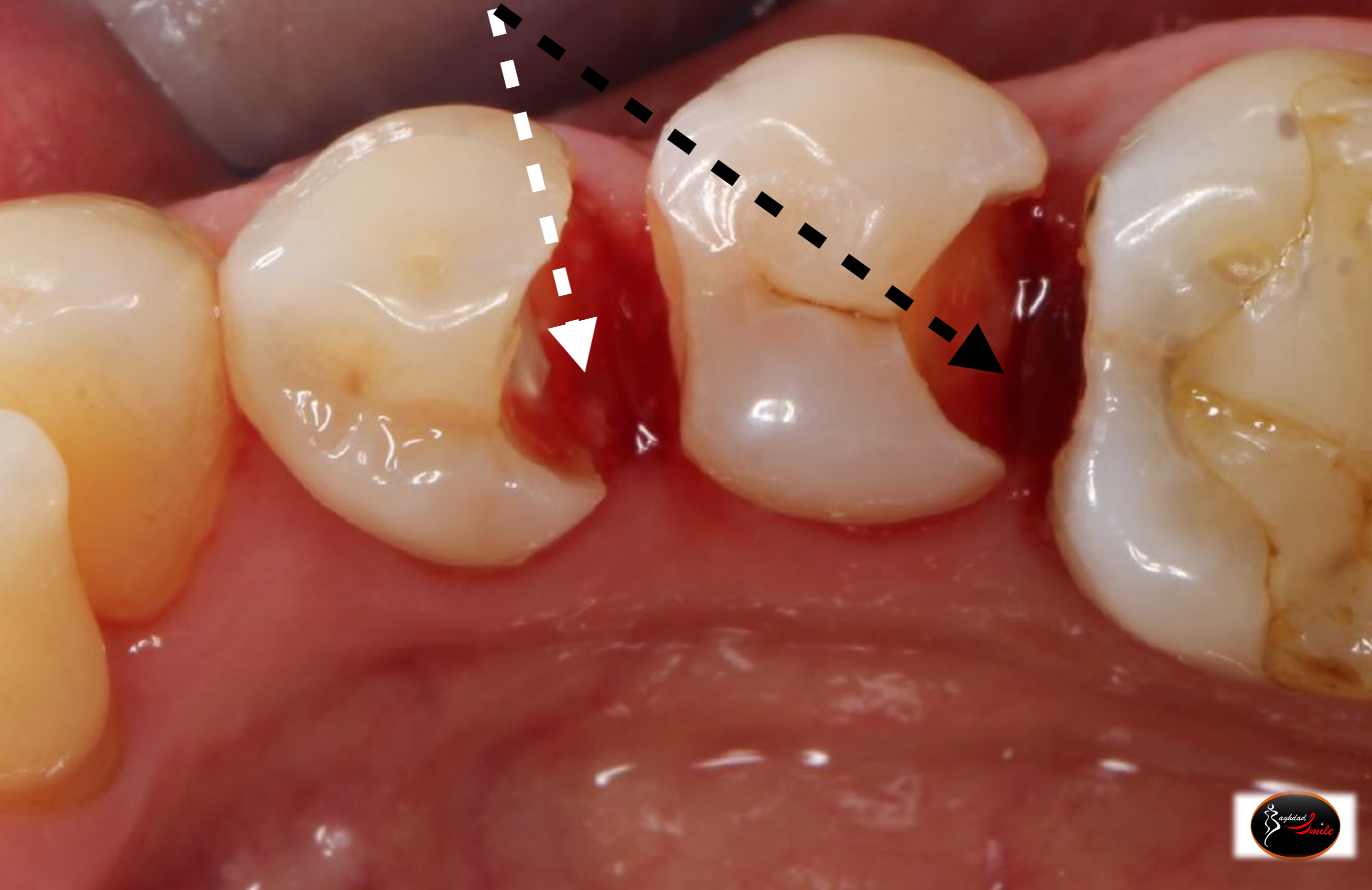








# DEEP MARGINS CL II..











FINALLY..

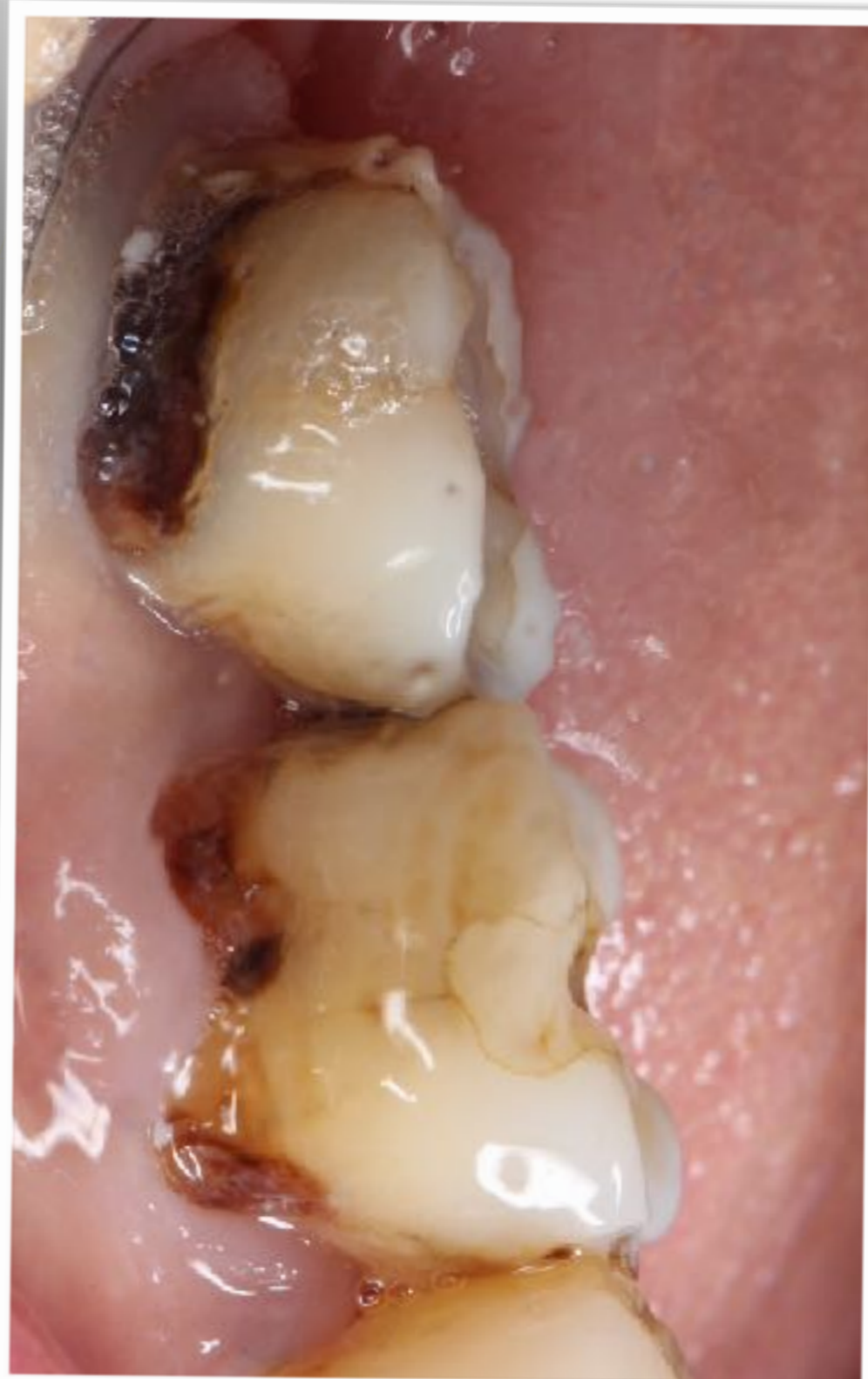




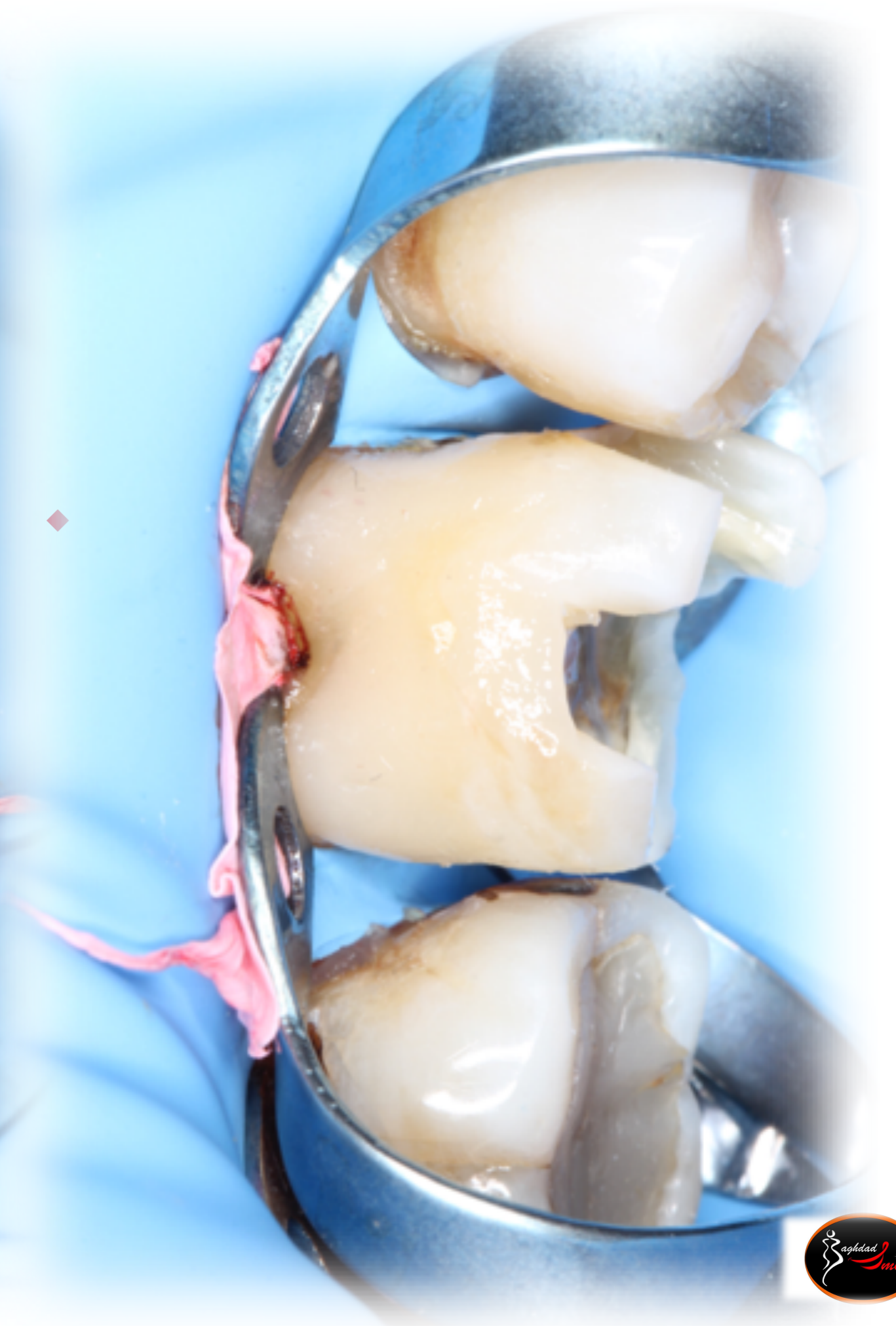
# ALL IN ONE CASE..

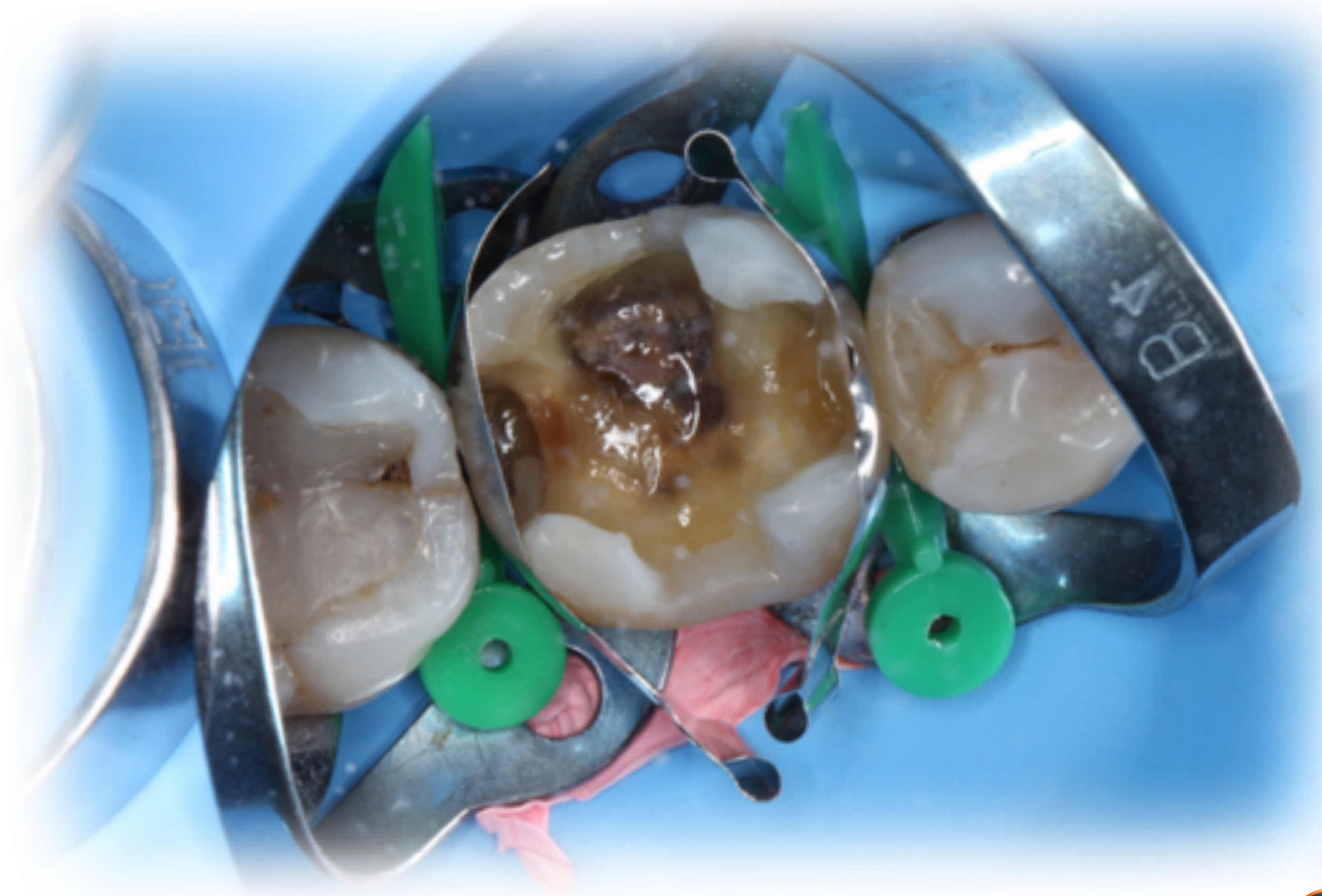


&













# FINALLY..



**FINALLY**



*Handwritten signature in blue ink.*







M O H A M M E D T A L A L

EVERY DAY GAM



M O H A M M E D T A  
L A L



**LOVELY**  
TUNNEL ..



*Signature*

**SINGLE SHADE**

**BODY ..**

M O H A M M E D  
L A L

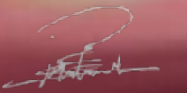
T A



*[Handwritten signature]*

M O H A M M E D T A  
L A L

**5 MINUTES GAME**





HANA

4000