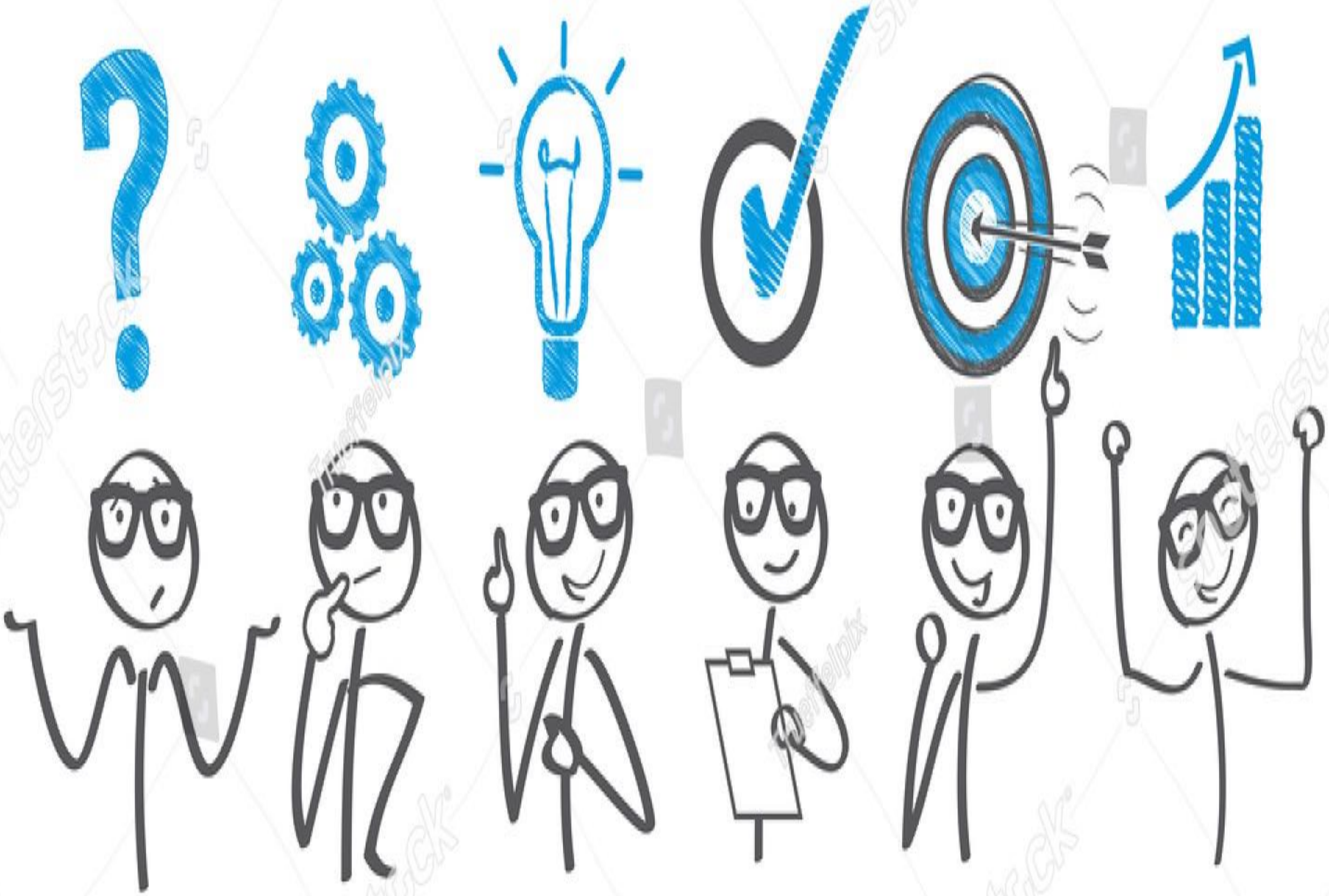
THE KEYS OF SUCCESSFUL POSTERIOR RESTORATIONS..

THE KEYS OF SUCCESSFUL POSTERIOR RESTORATIONS

DR.MOHAMED TALAL

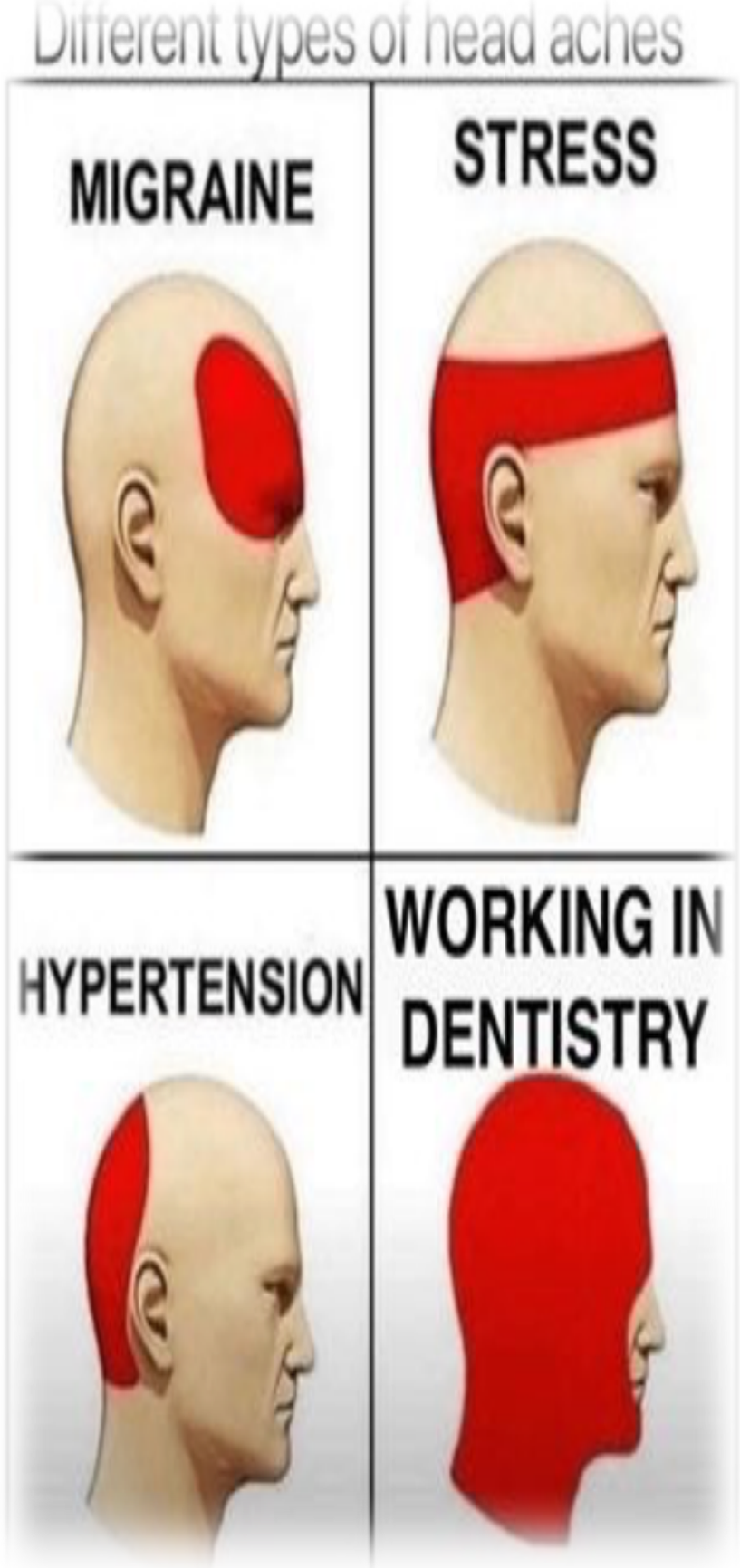
DAILY CHALLENGE ..



IN YOUR FACE:

Facing the Realities of Stress in Dentistry

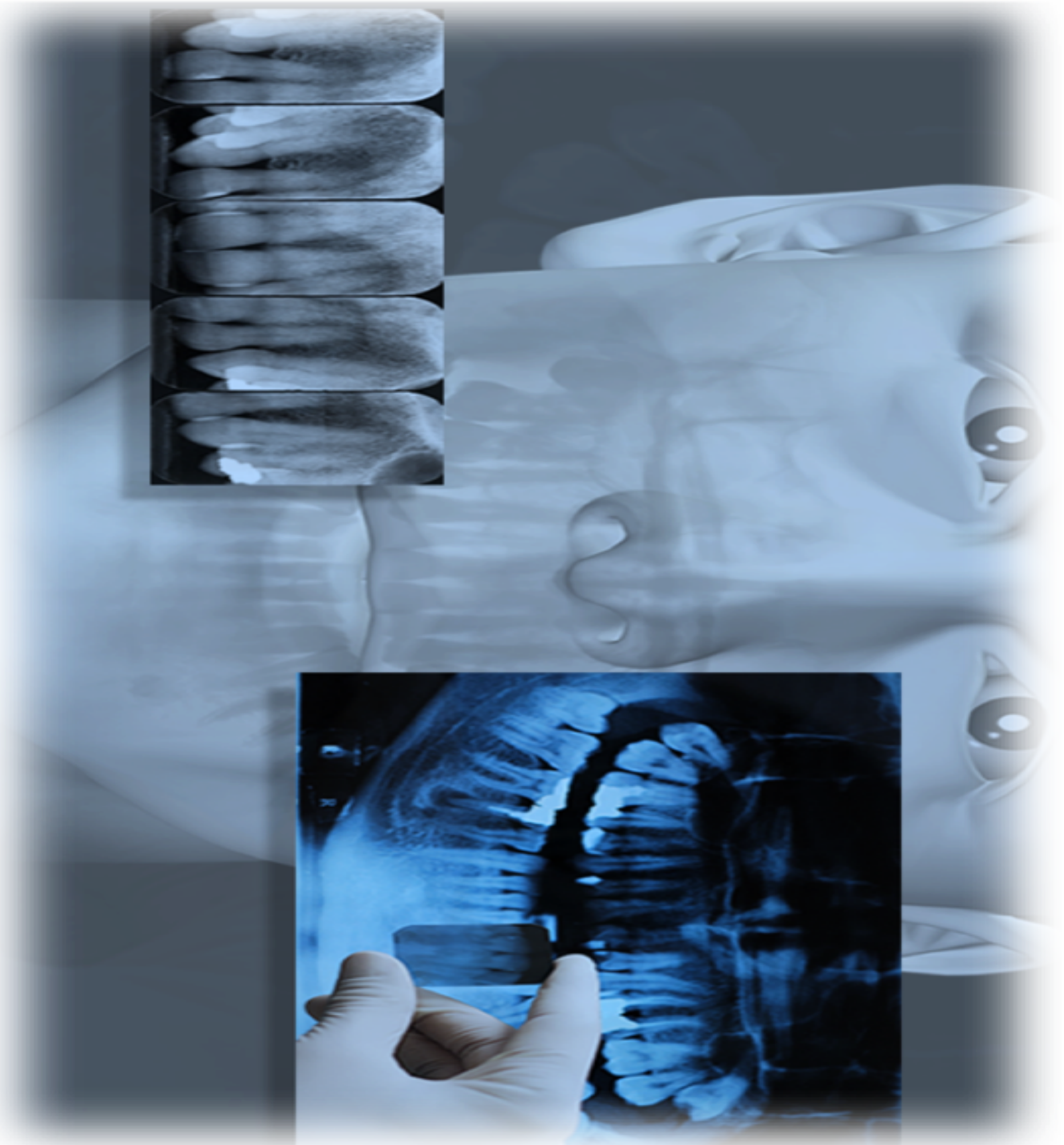
by Jen Butler, MEd, BCC



Why Composite in Posteriors ?

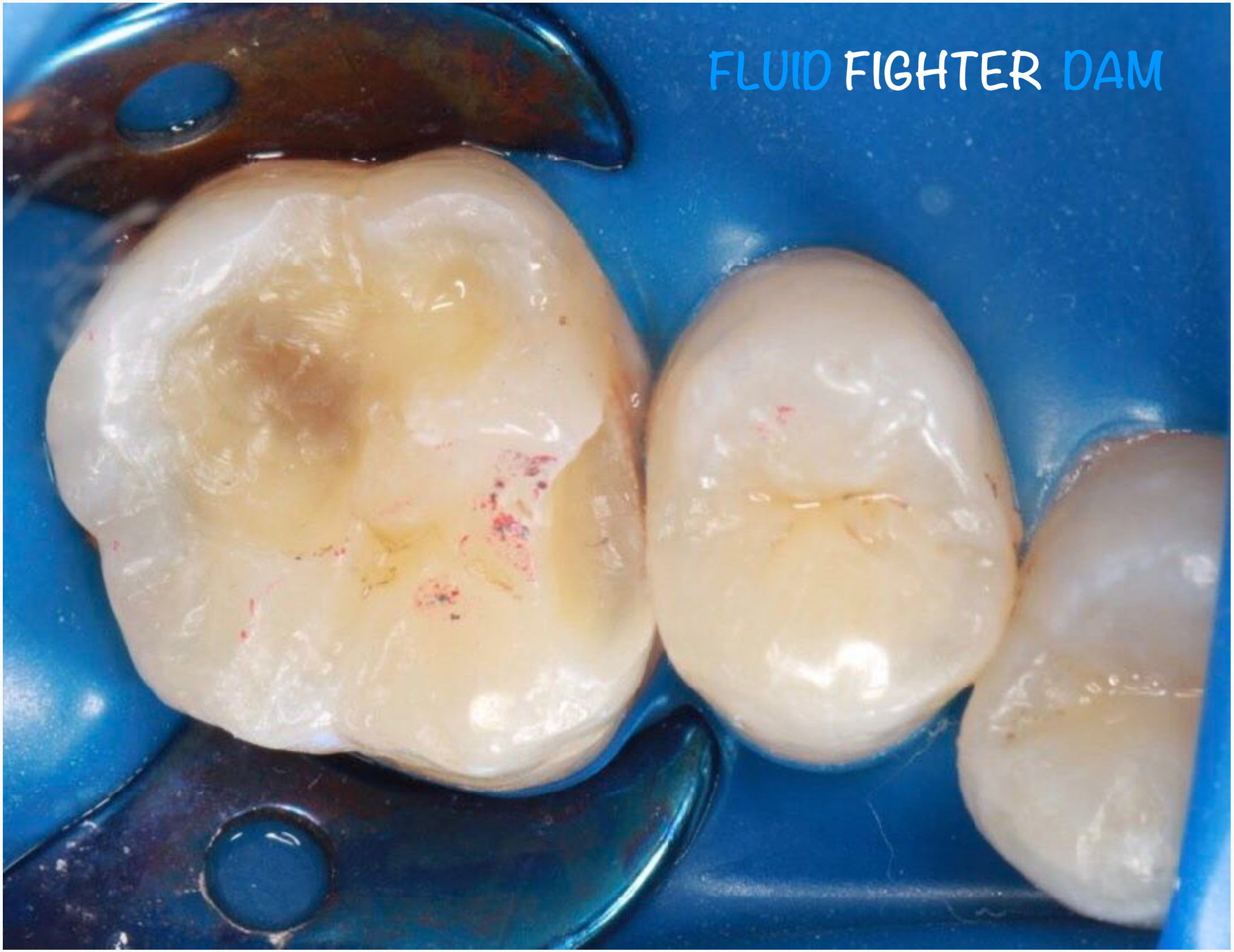
Esthetics .

Diagnosis




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


EXPOSED DENTINE
OLD COMPOSITE
PROXIMAL CARIES


FLUID FIGHTER DAM


MOHAMED TALAL



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


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


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


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


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


MOHAMED TALAL


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


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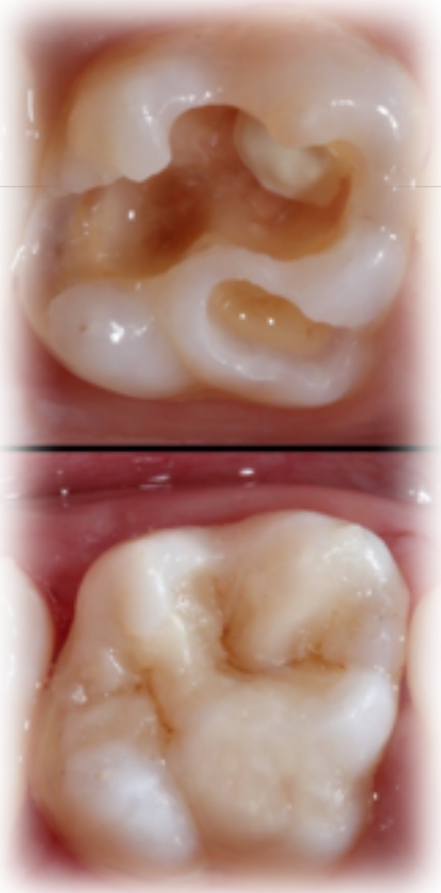
M O H A M E D T A L A L

Cavity preparation

shallow..

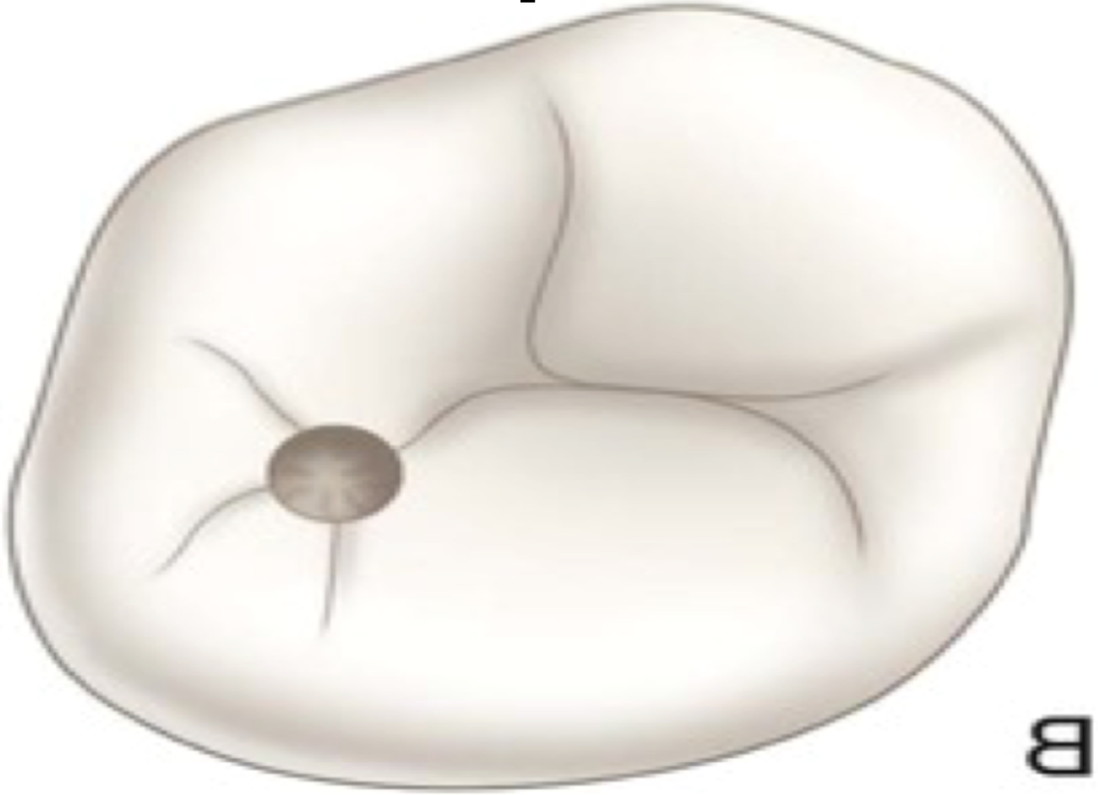


Direct capping..

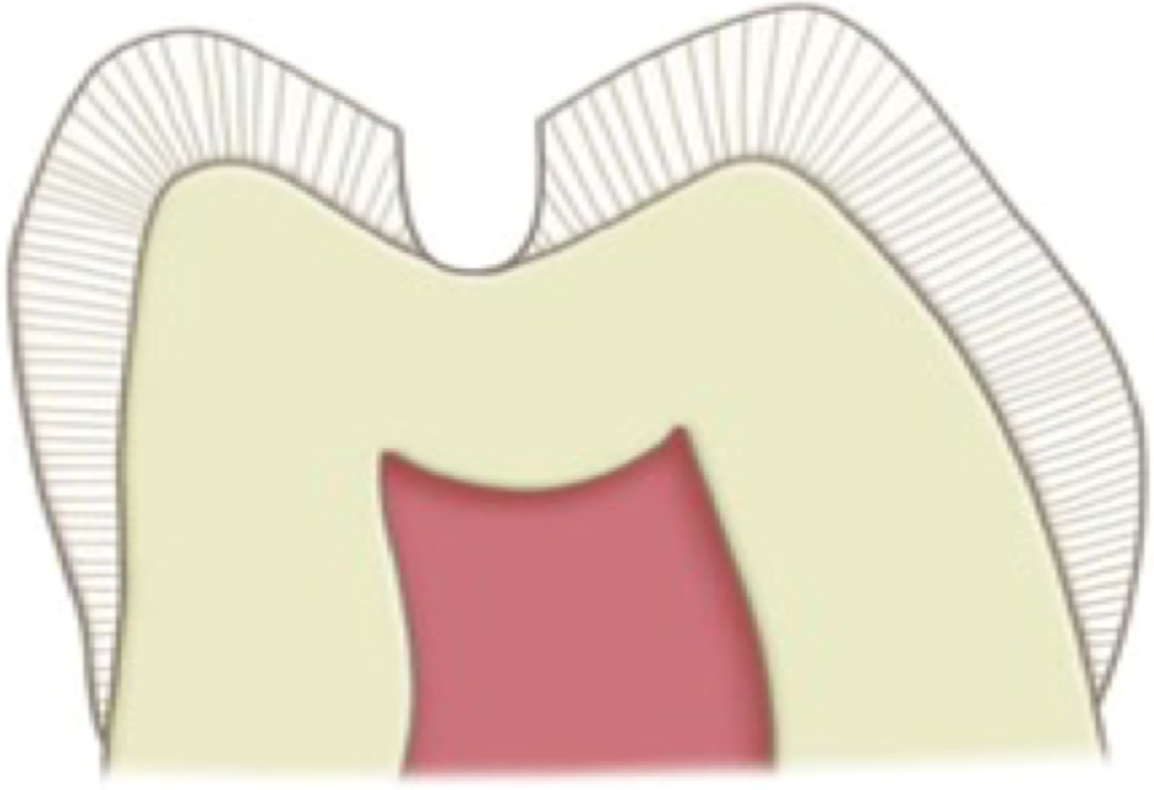
Indirect capping..

class1 lesions scooped out appearance with small round bur The pulpal floor not flat

No ext. for prevention.

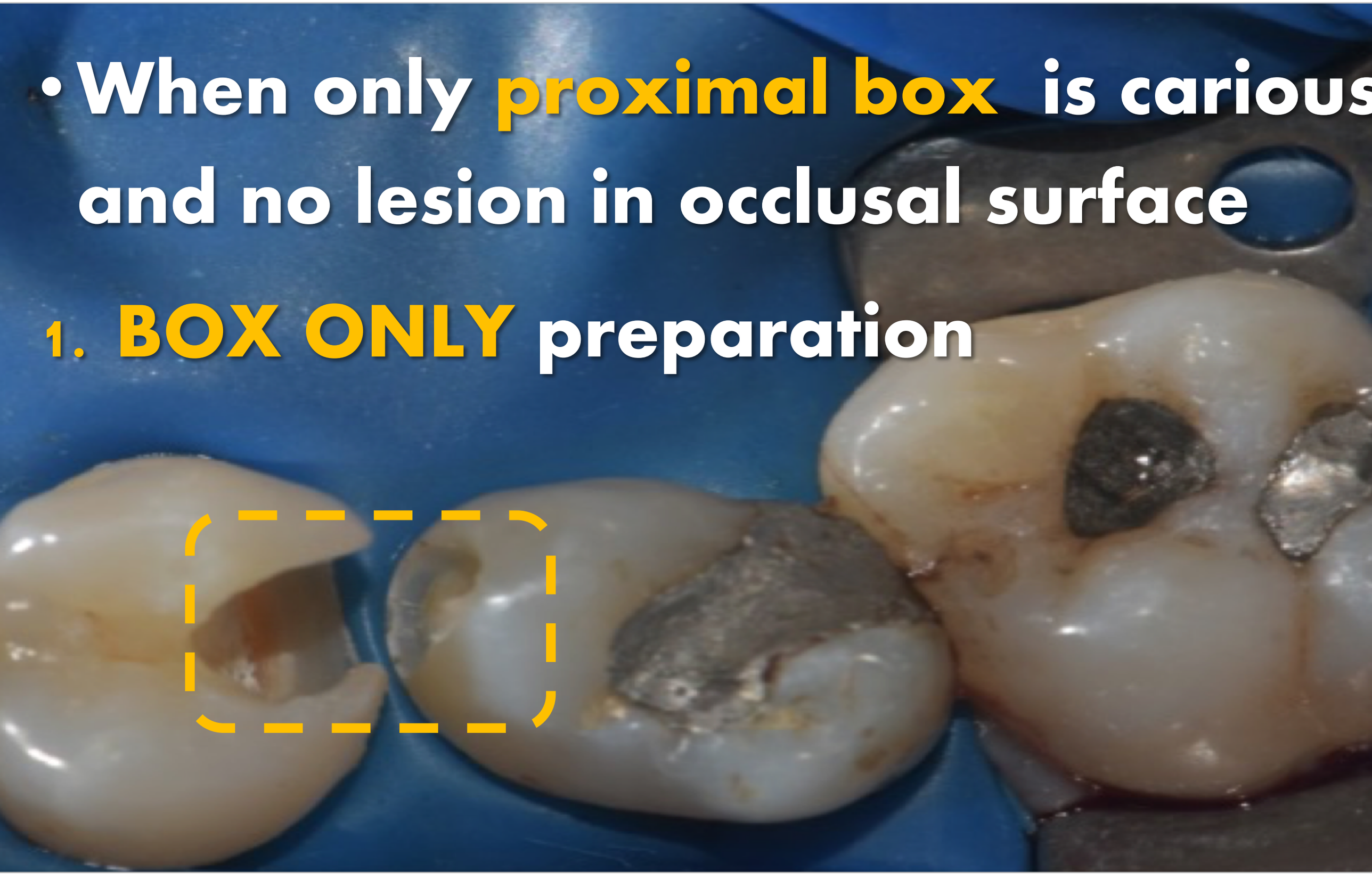


B



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

1. **BOX ONLY** preparation



2- Slot technique

C l III design


mm/inch
2.64 mm
OFF ON ZERO

Isolation and bonding

Isolation and bonding

Dental Materials Journal 2014; 33(4): 546–550

Effect of artificial saliva contamination on adhesion of dental restorative materials

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[2]*Division of Dentistry, Tokyo Metropolitan Children's Medical Center, 2-8-29 Musashidai, Fuchu-shi, Tokyo 183-8561, Japan*
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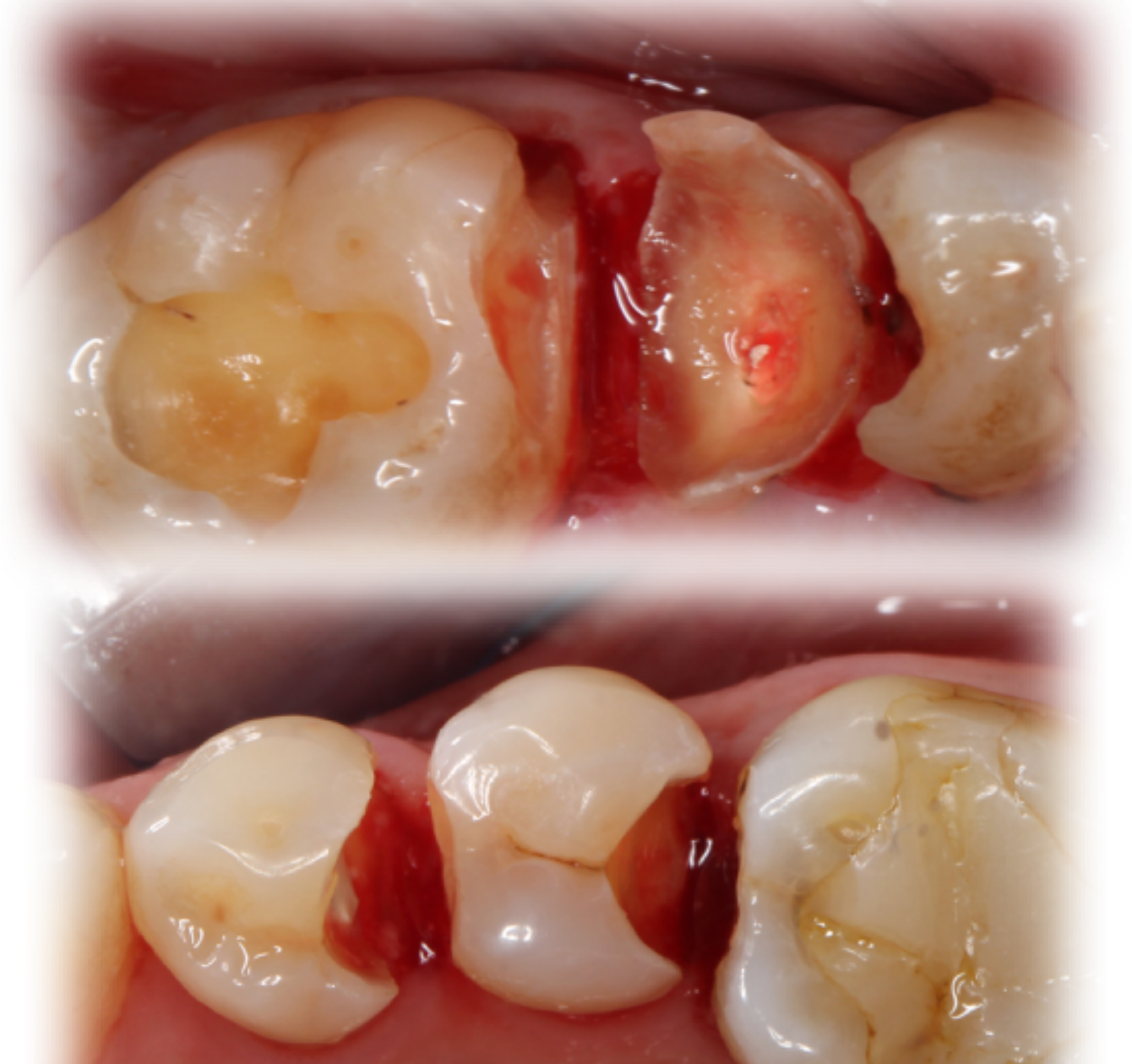
The purpose of this study was to evaluate the effects of artificial saliva contamination on three restorative materials, namely, a glass ionomer cement (GIC), a resin-modified GIC (RMGIC), and a composite resin (CR), for which two different etching adhesive systems were used. Thus, three surface conditions 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 degrees of microleakage.

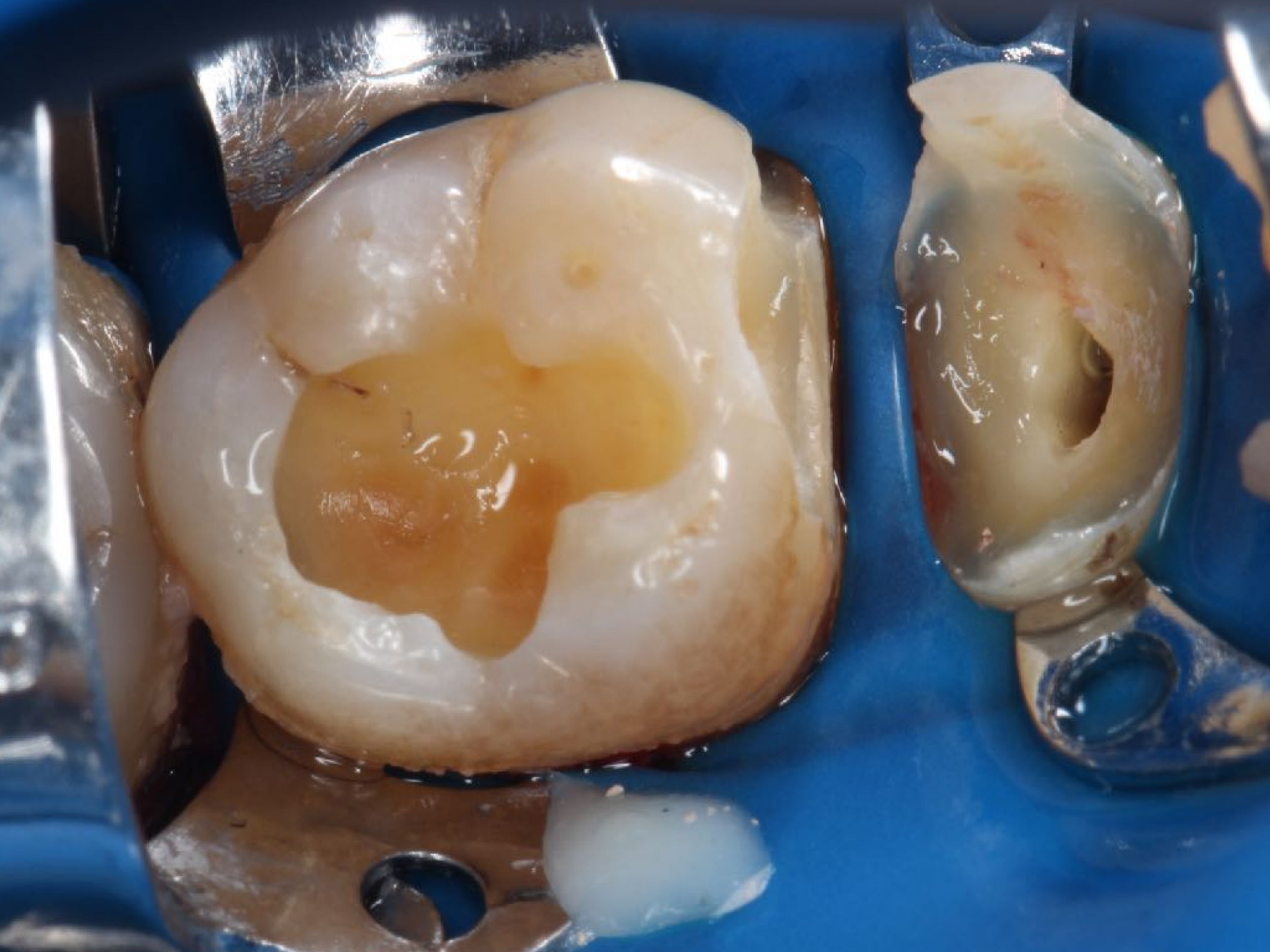
Keywords: Saliva contamination, Glass ionomer cements, Composite resins, Bond strength, Microleakage

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

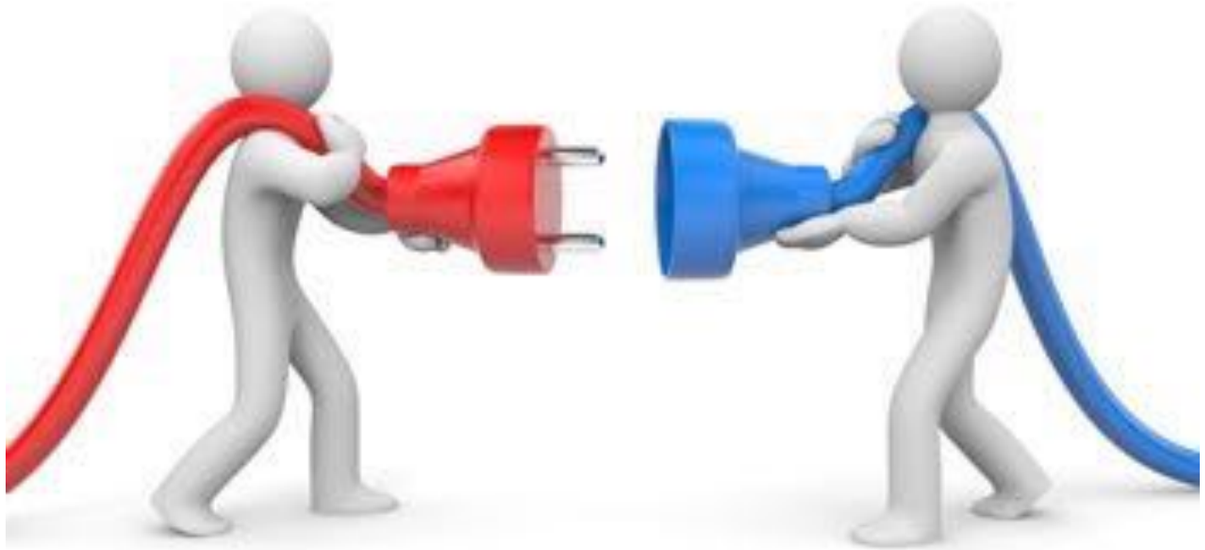
By

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

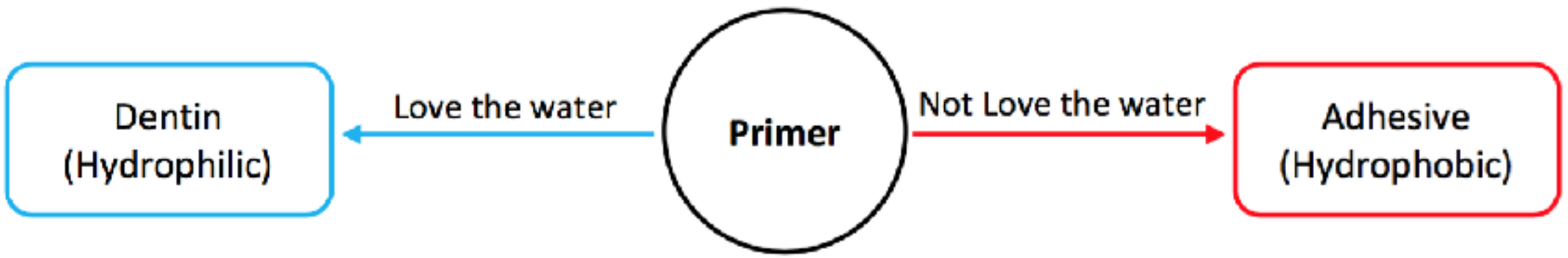
Gary Alex, DMD, Is total-etch dead? Evidence suggests otherwise;Compendium of Continuing Education in Dentistry, January 2012

Adhesive agents



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

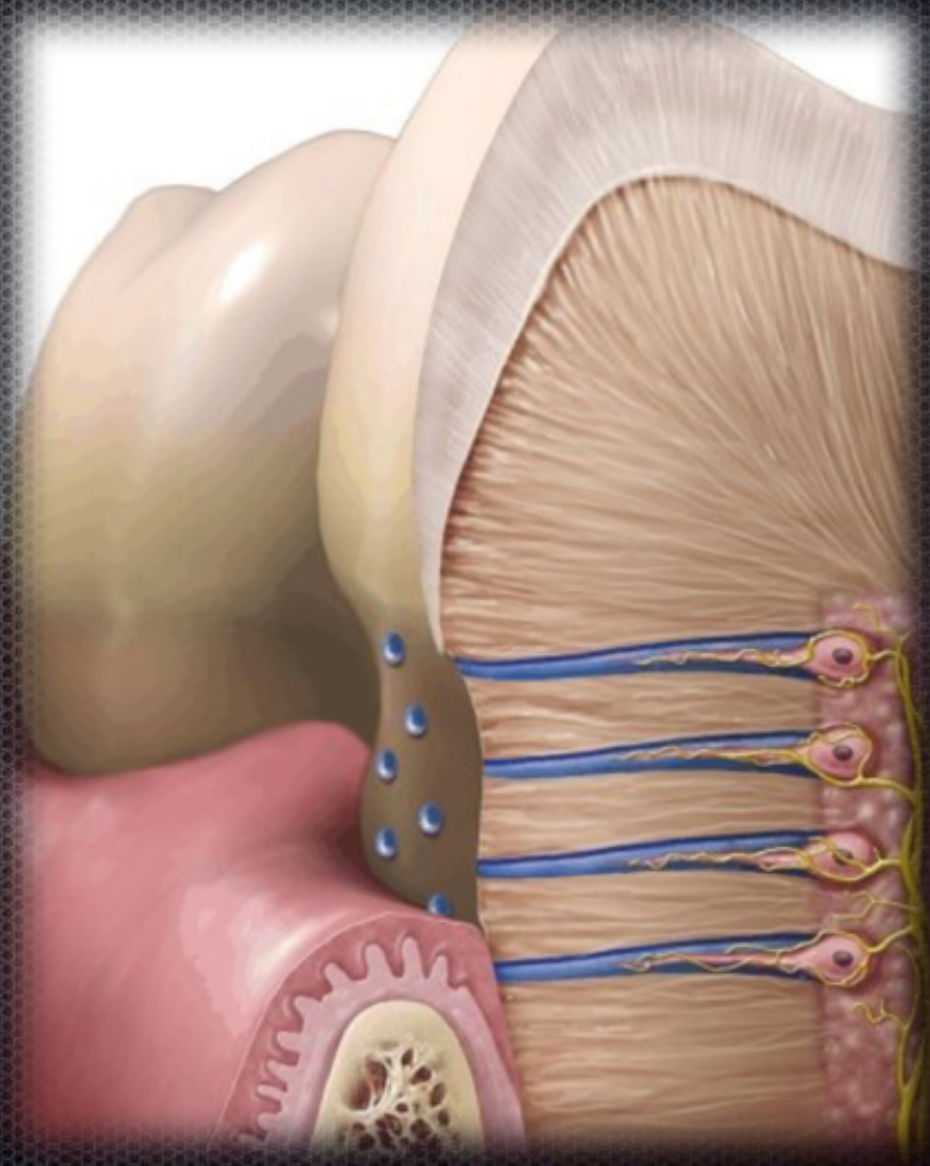
Fig. 1. Current contemporary dental adhesives systems and characteristics affecting the long-term stability of dentin–resin interfaces. Symbol (+) indicates scale ranging from lowest (+) to highest (++++). [a] The adhesive system support optional pre-etching of enamel or dentin (2- step) or self-etching mode (1-step). [b] 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.


Dentin
(Hydrophilic)
Love the water
Primer
Not Love the water
Adhesive
(Hydrophobic)

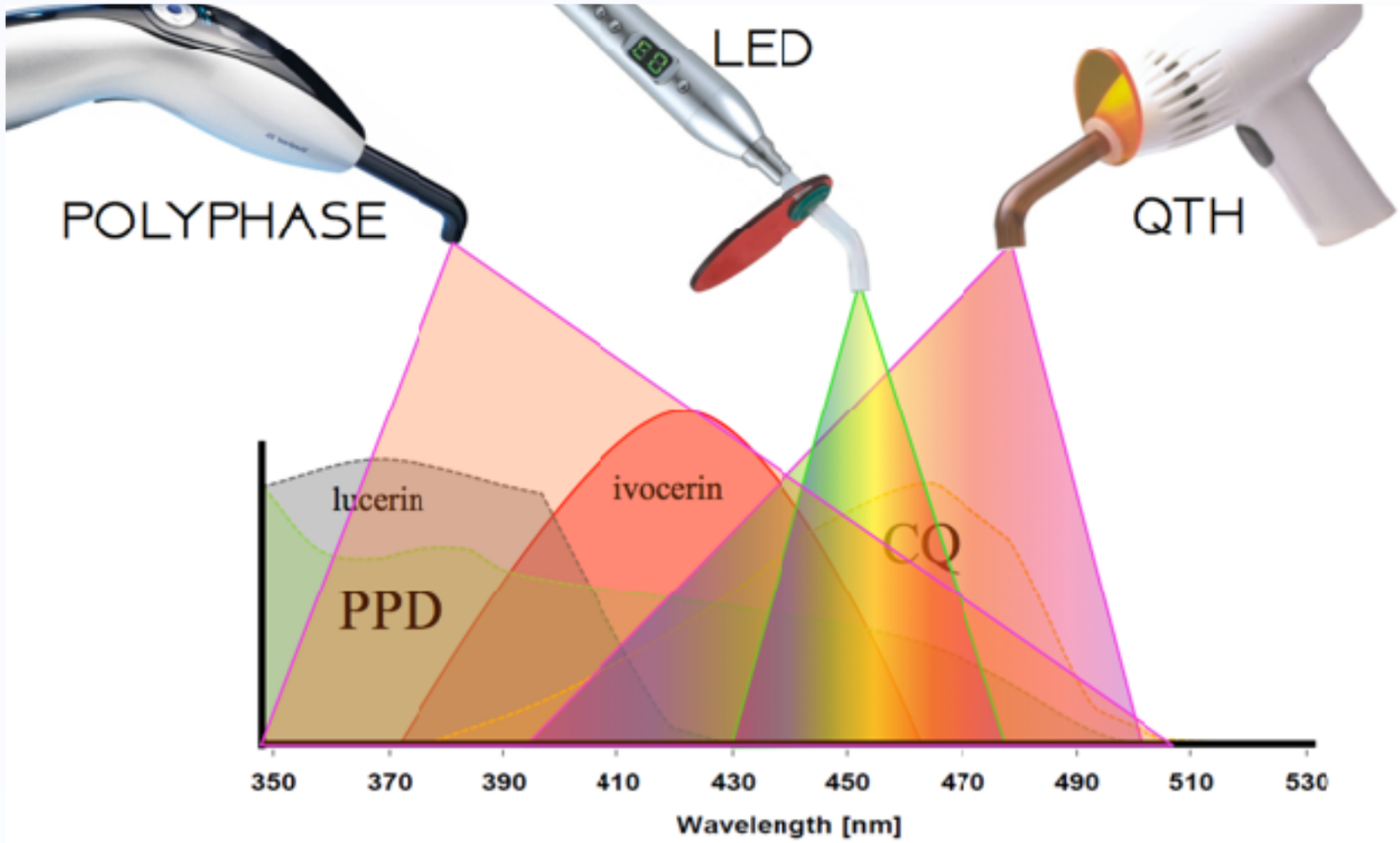
Etching

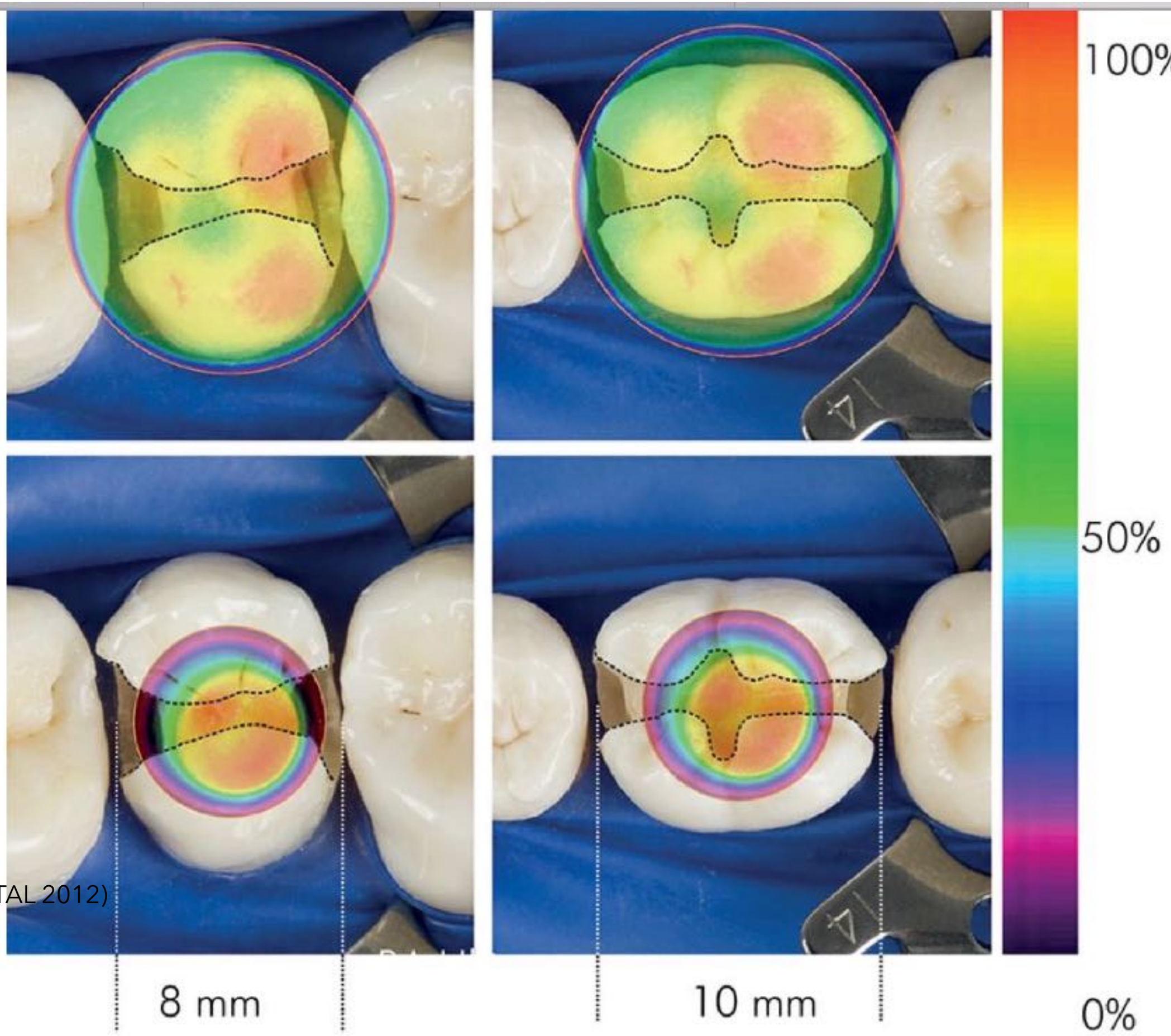
what about sensitivity ?

NO LINING..



LIGHT CURING DEVICE SELECTION ..

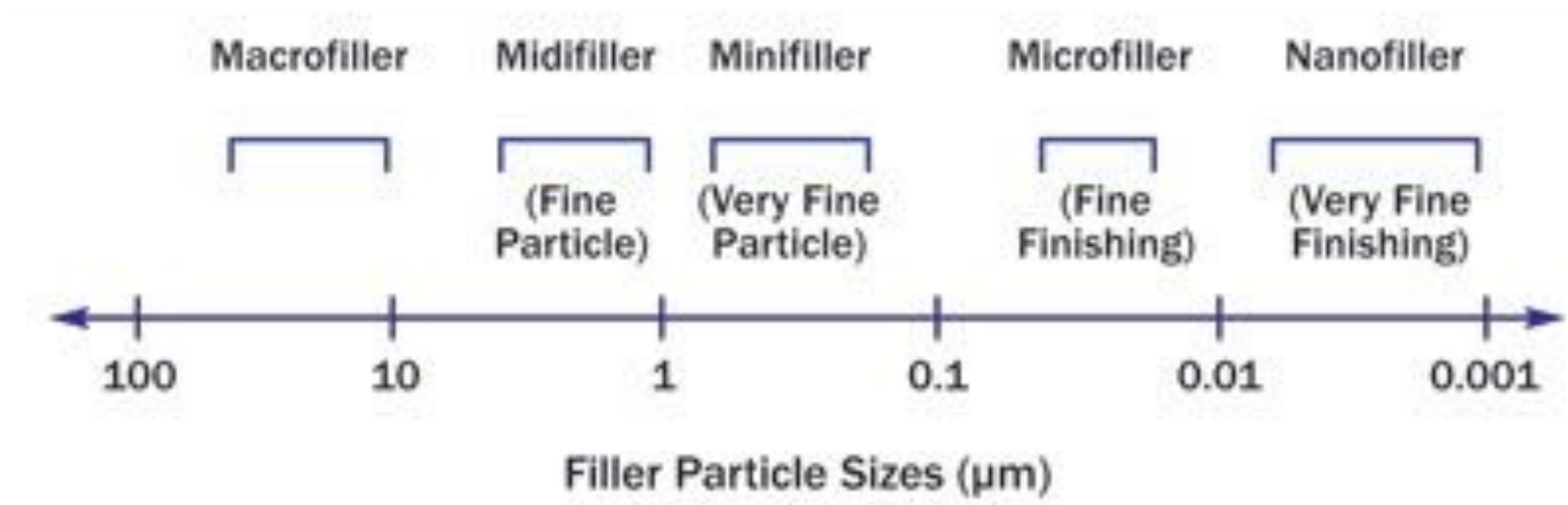


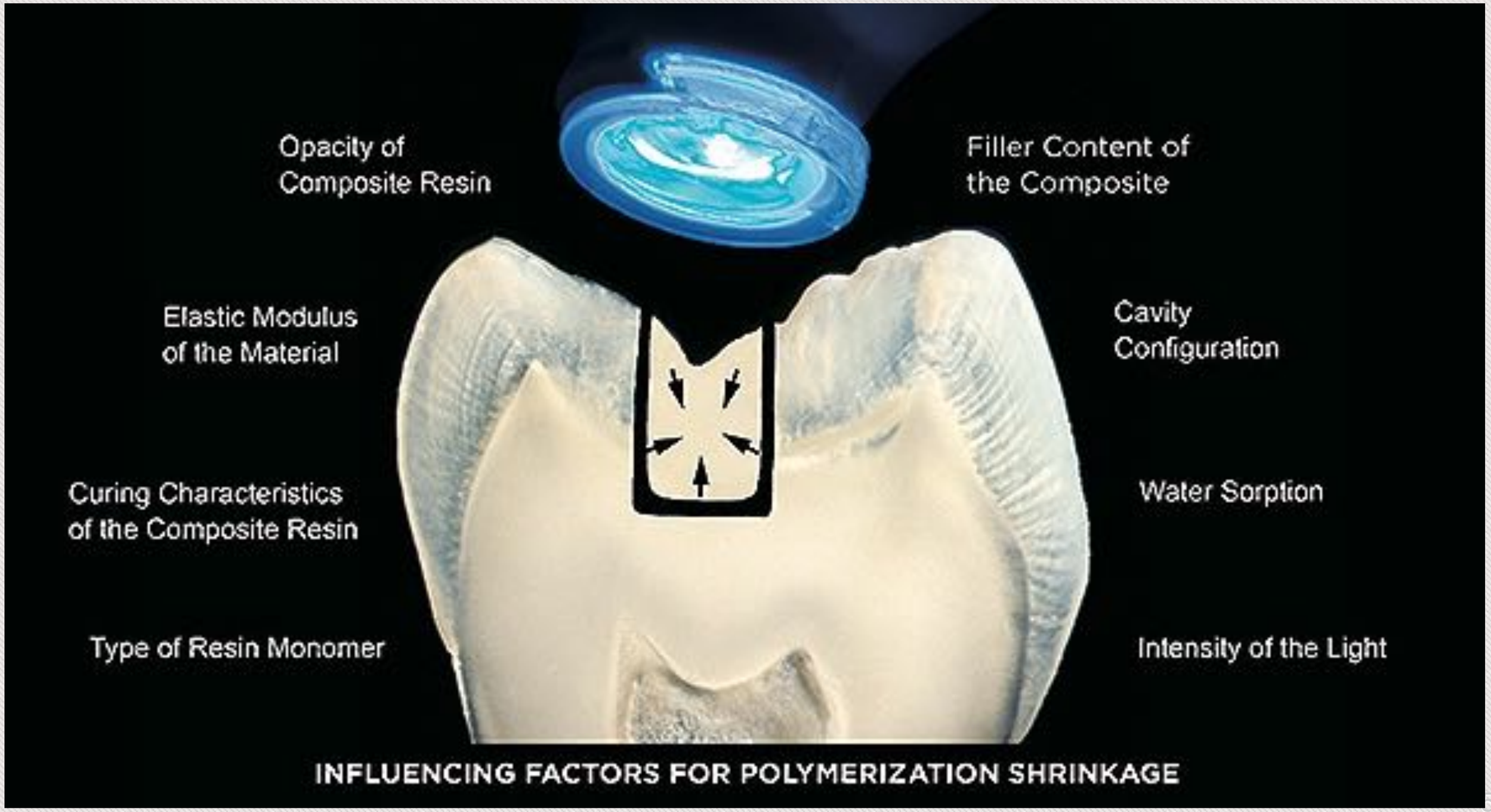


LEENDERT ETAL 2012)


POST. COMPOSITE
APPLICATION

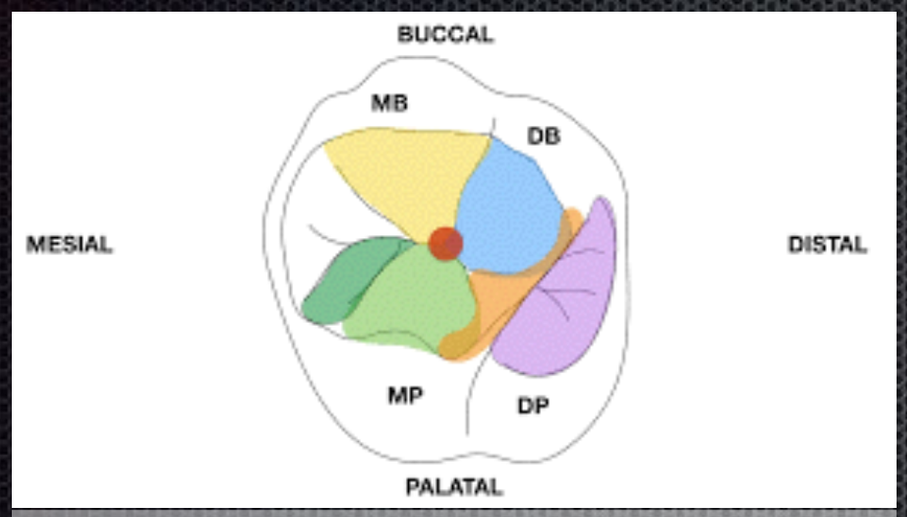
4 Types Of Compo

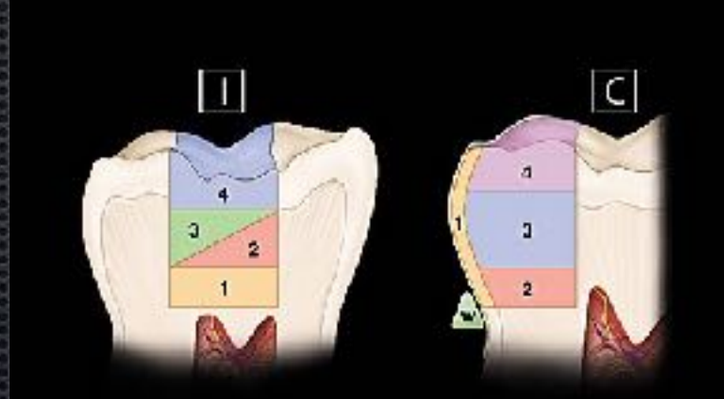



Opacity of
Composite Resin
Filler Content of
the Composite
Elastic Modulus
of the Material
Cavity
Configuration
Curing Characteristics
of the Composite Resin
Water Sorption
Type of Resin Monomer
Intensity of the Light
INFLUENCING FACTORS FOR POLYMERIZATION SHRINKAGE

METHODS :

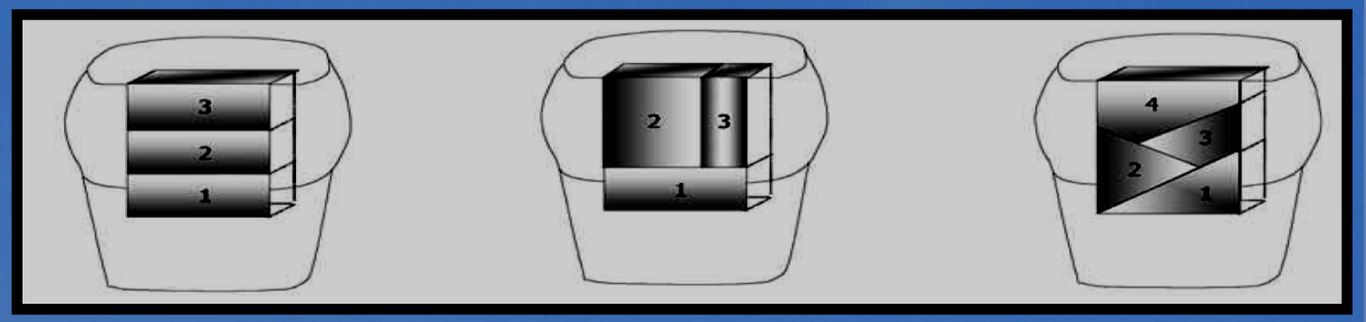
VERTICAL HORIZONTAL OBLIQUE





What are the Placement techniques of direct posterior restoration?

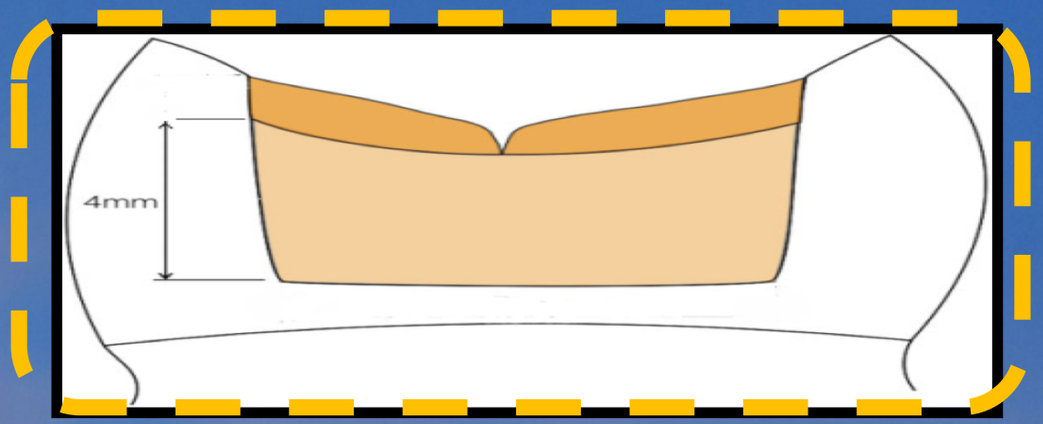
I. The Layering Technique: Horizontal, vertical and oblique



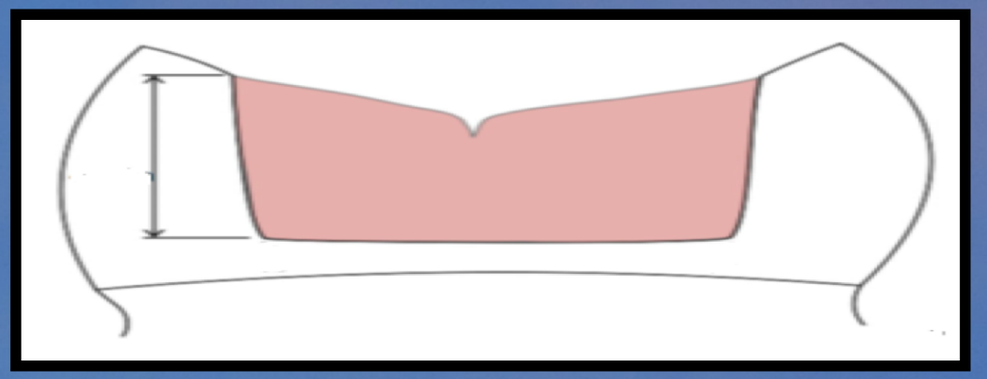
II. Two-steps amalgam-like technique (Bulk-fill flowable and regular composite):

The presence of Stress Relief Monomers

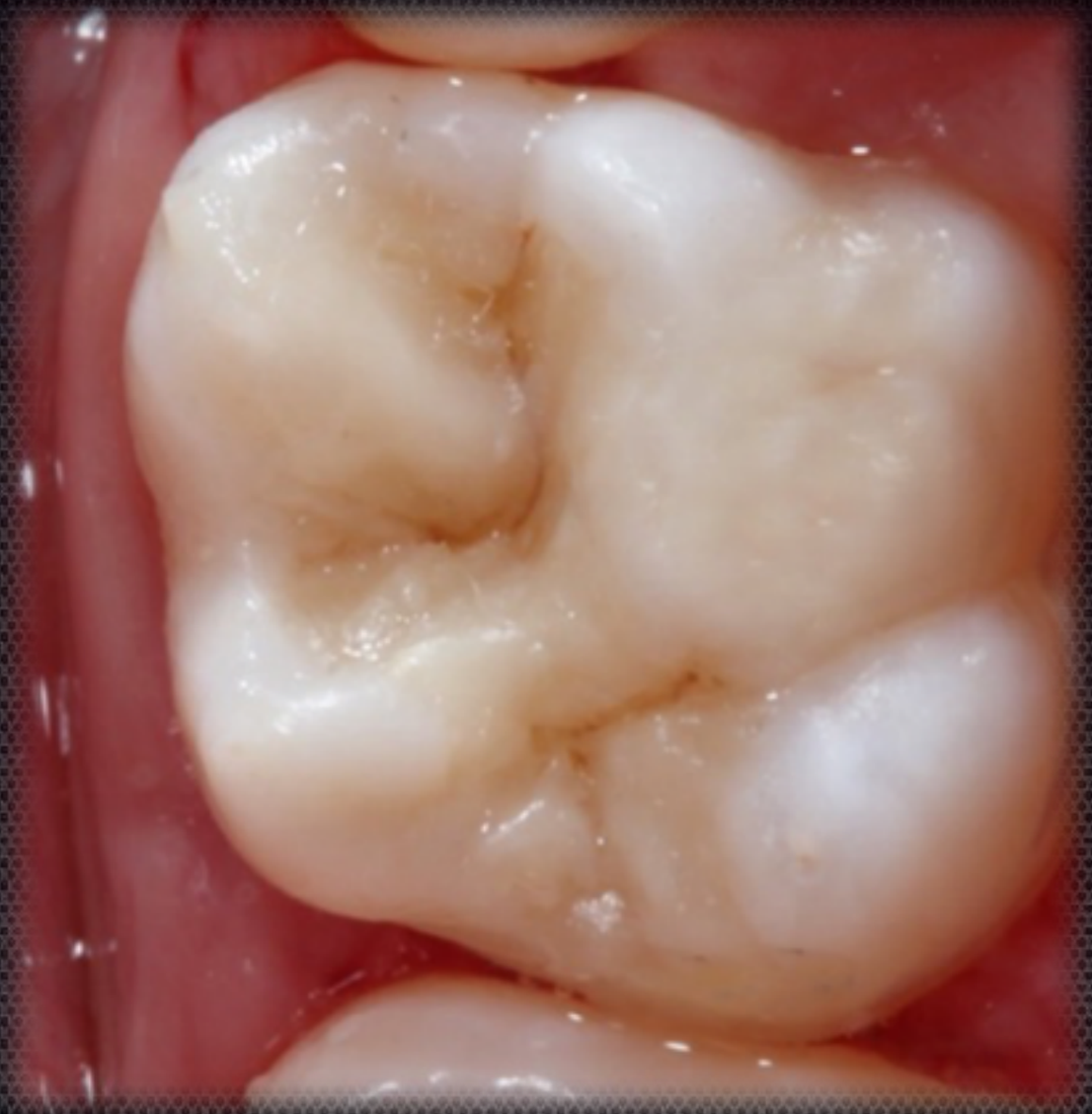
Specific Photoinitiators



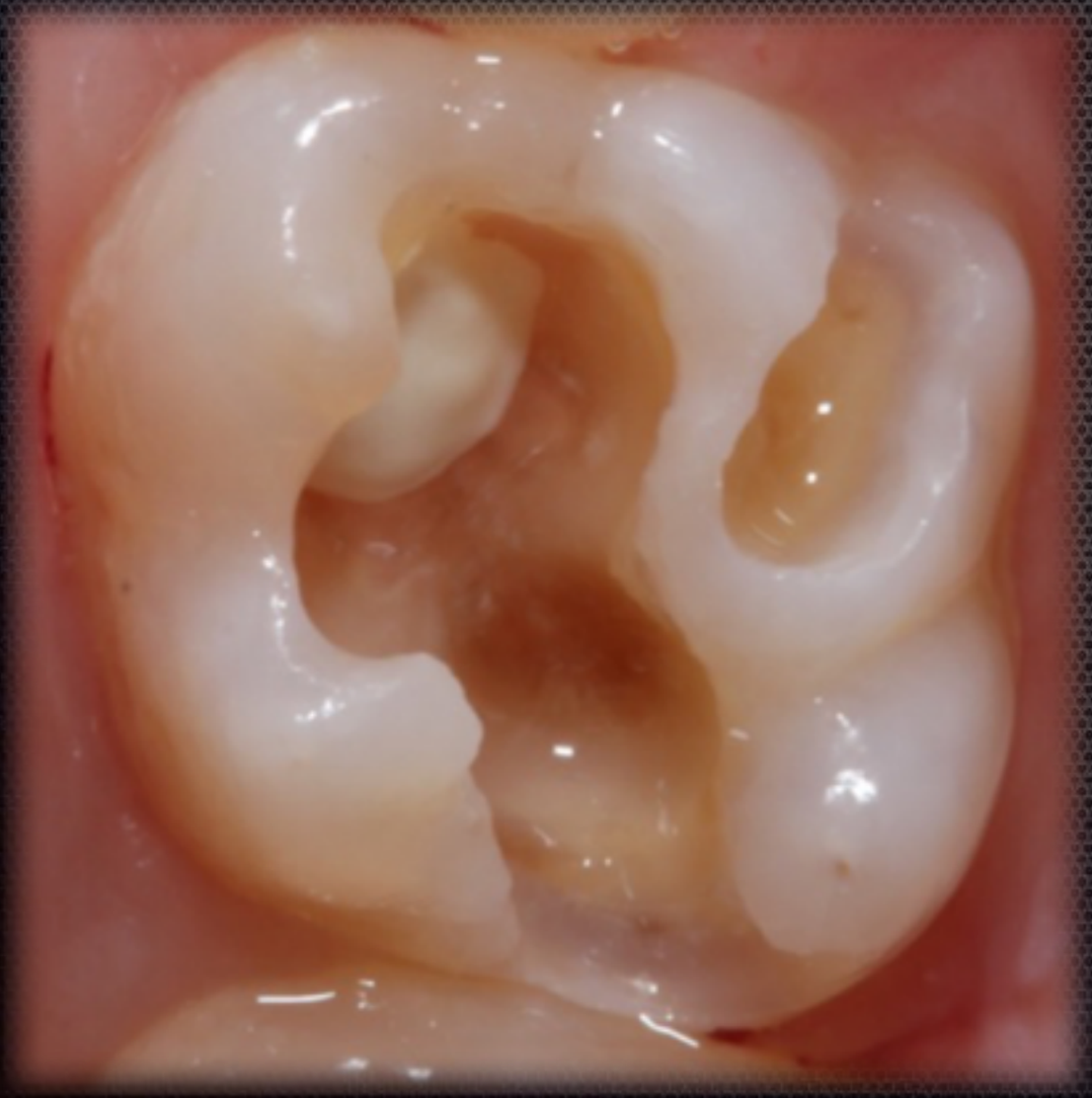
III. Single-step amalgam-like technique(Bulk-fill regular composite)



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

INSTRUMENTS

- BRUSHES
- FISSURA
- APPLICA
- CONDENSA
- MICRO BRUSHES

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

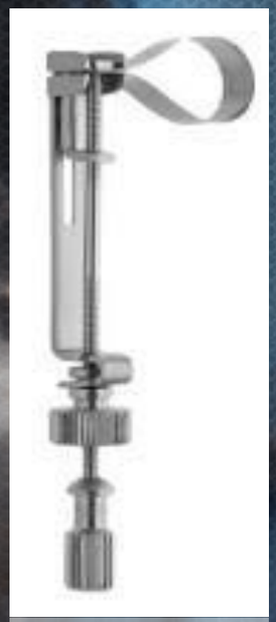
How to obtain a contact area:

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

Important tip

MATRICES:

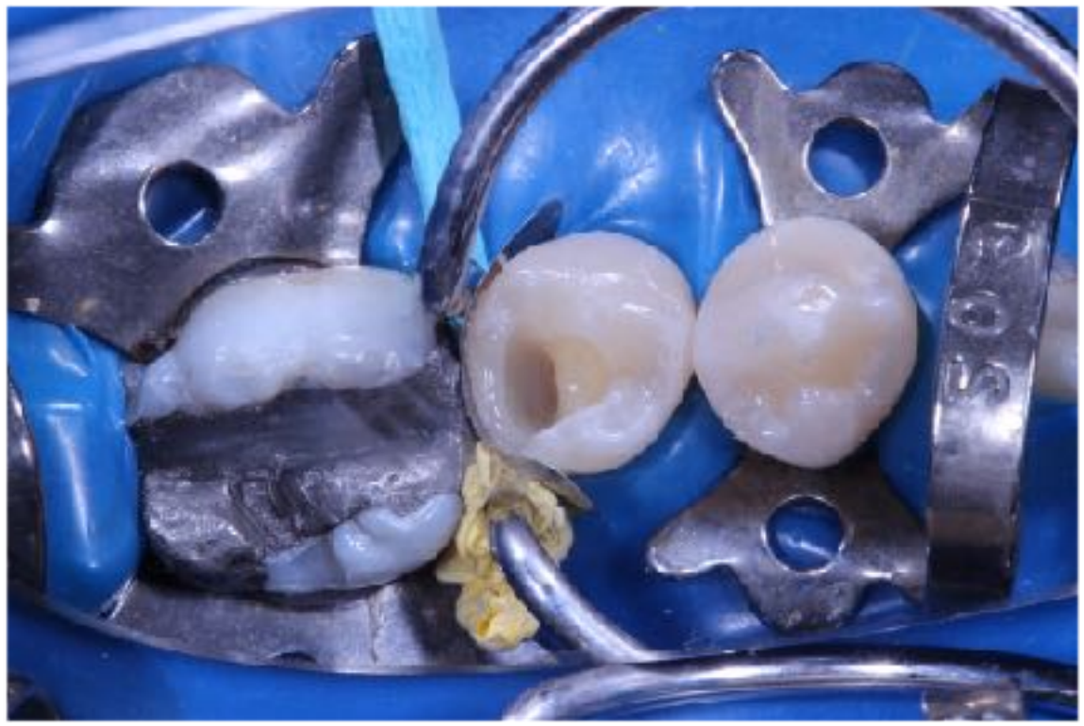
- **TOFFLEMIRRE (1,9)**

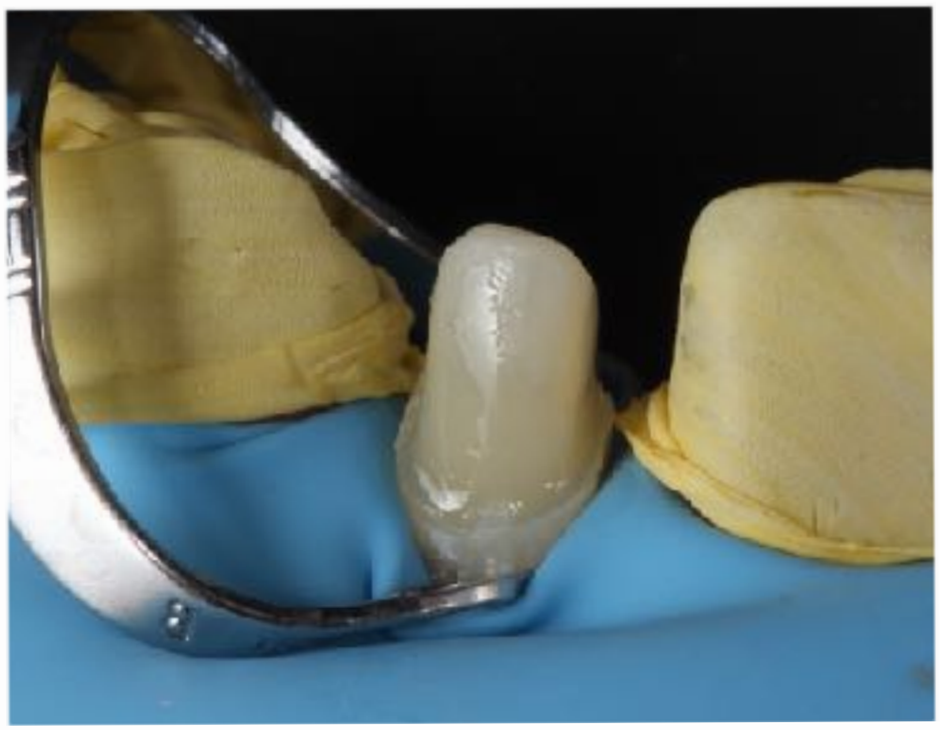


SECTIONAL MATRIX

· OMNI MATRIX

TEFLON..



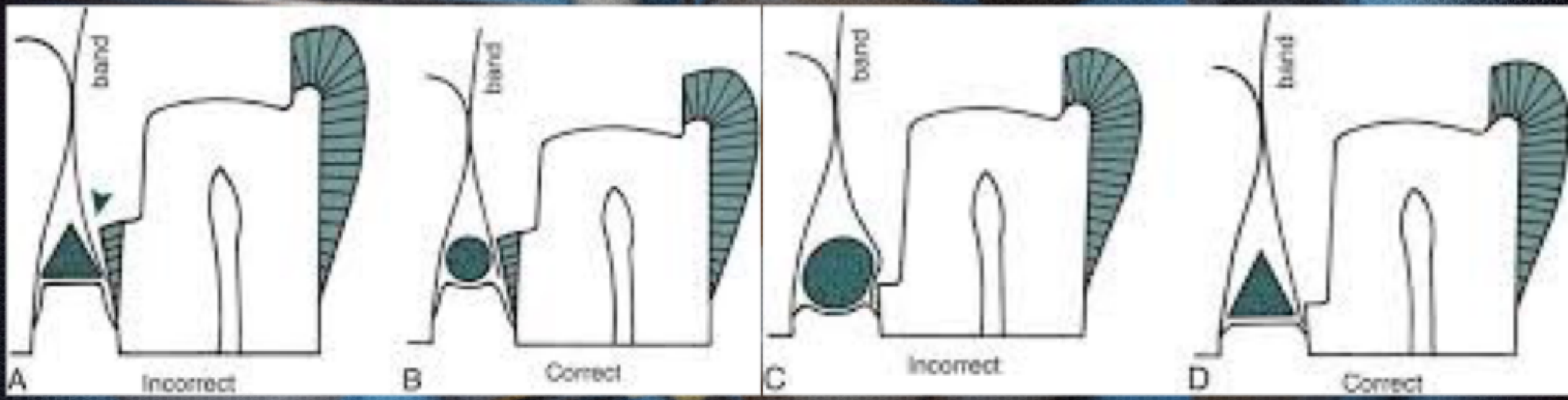


WEDGES..

PLASTIC

WOODEN

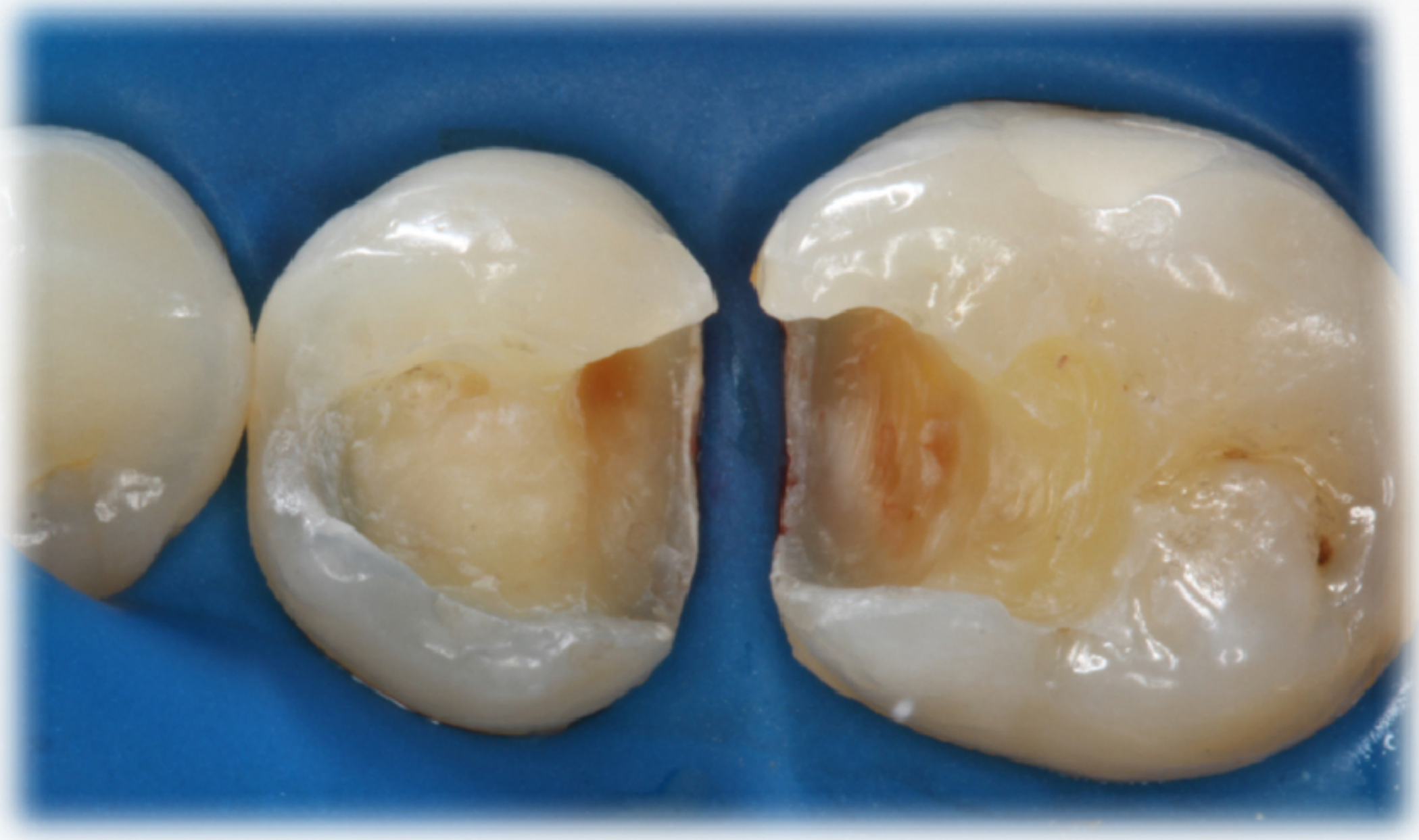
THE LOCATION OF WEDGES ..



CASES

DEEP MARGINS WITH THERMAL CUTTED GINGIVA

FLUID
FIGHTER
IN
ACTION..



THE WALLS
CREATED..

3M

THE MISSION IS DONE..

THE MISSION IS DONE ..

3M

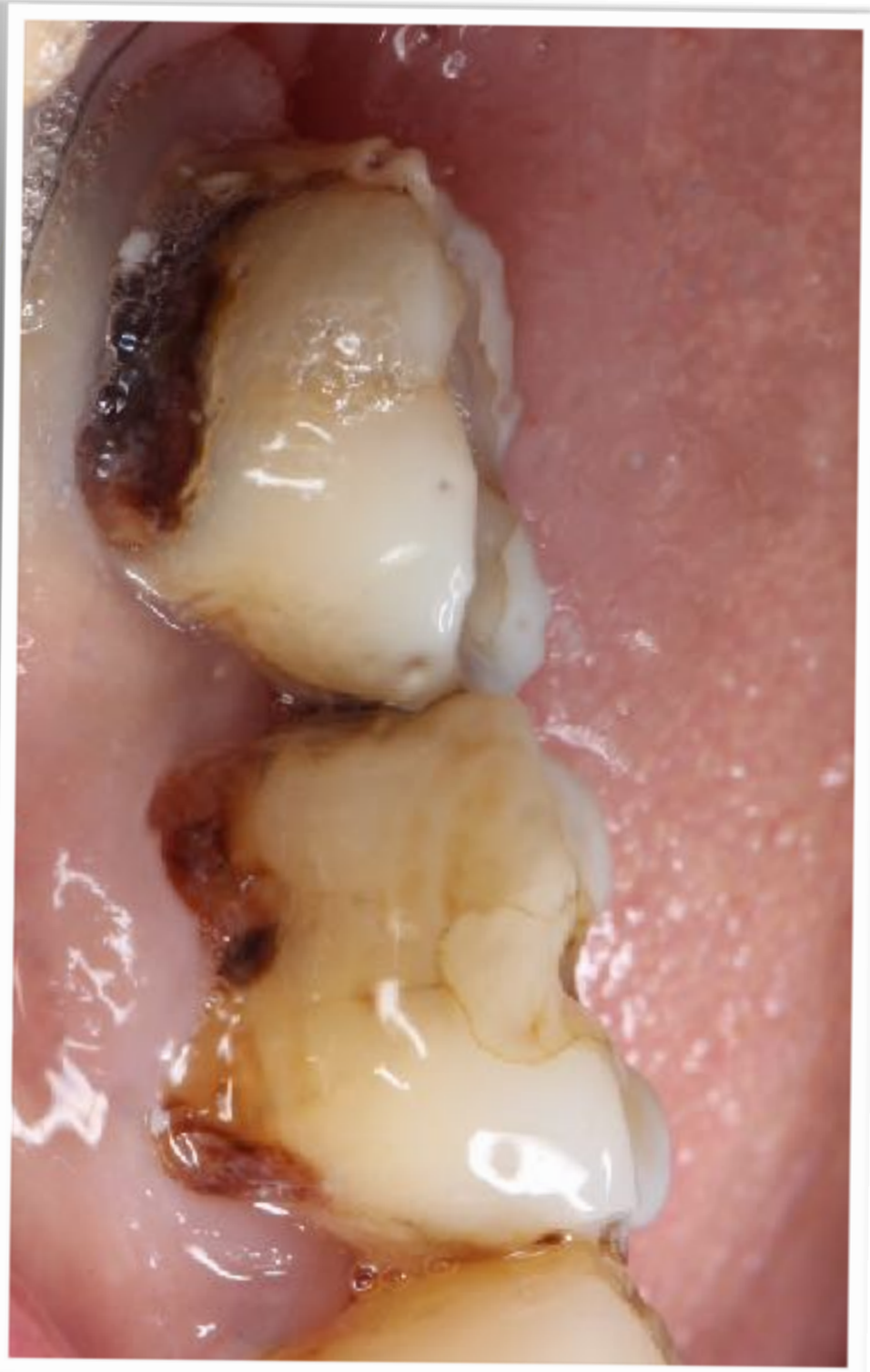
THE 100 MINUTES GAME..

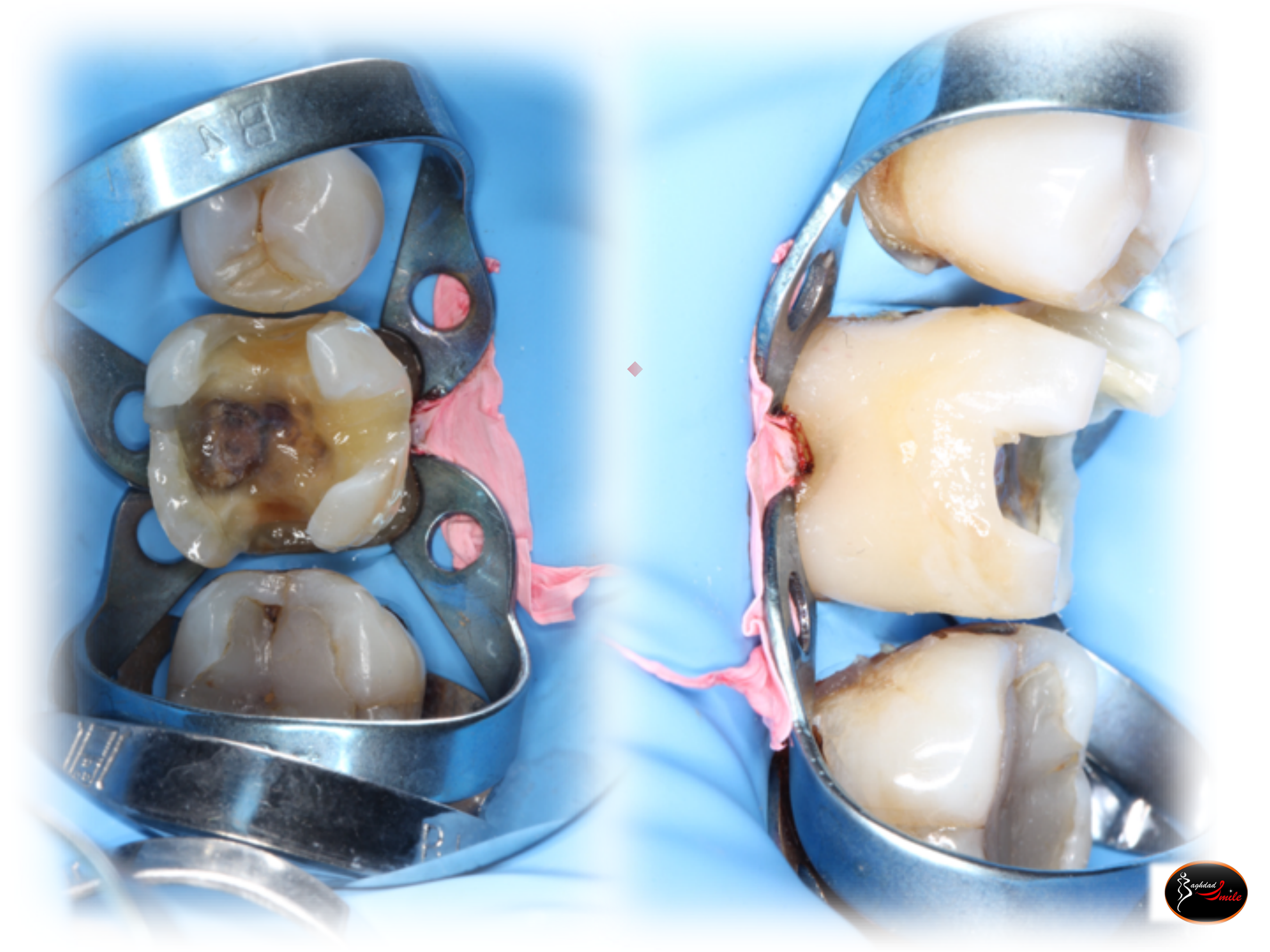
SIMPLE CL II

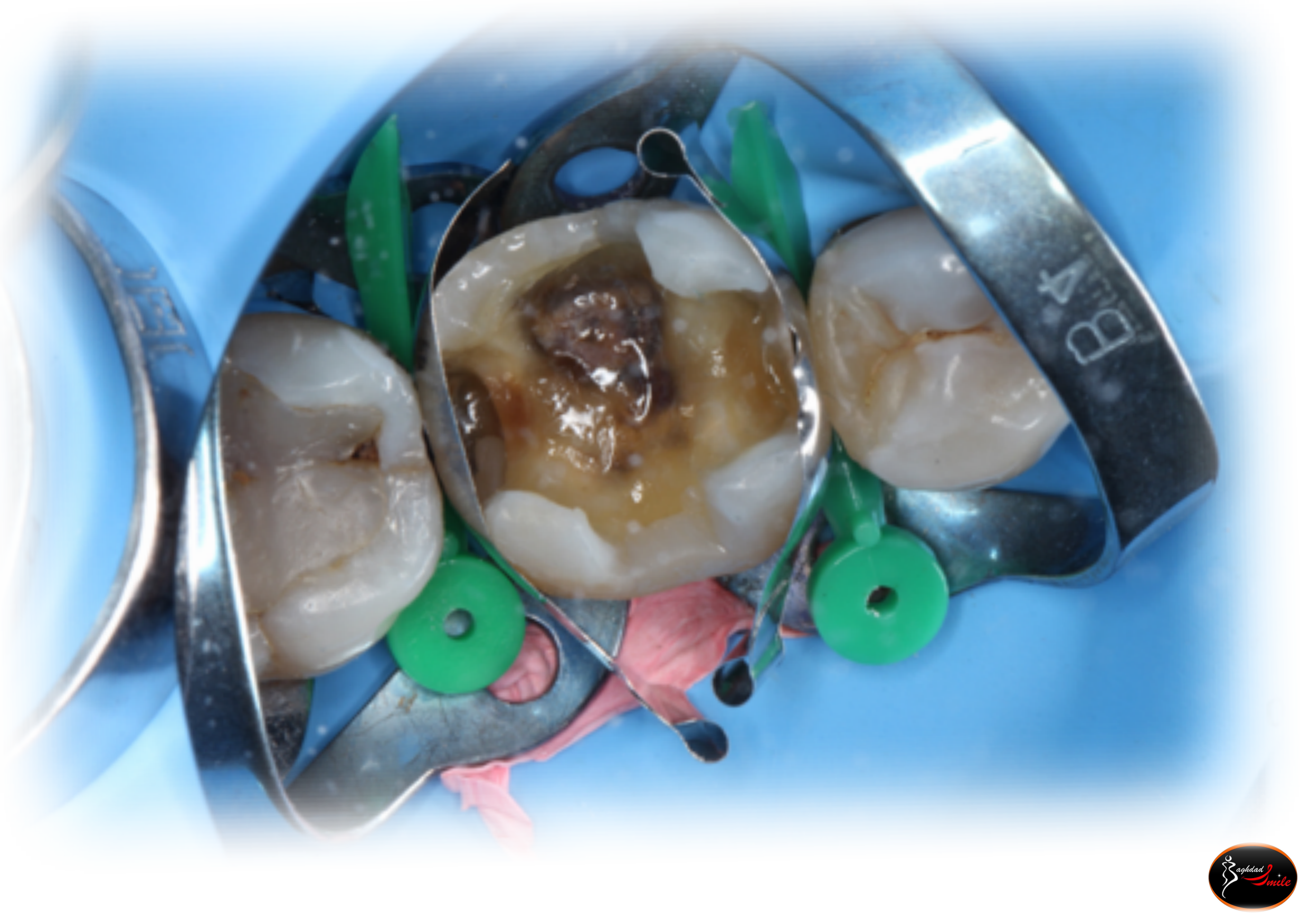
DEEP MARGINS CL II..

Finally..

ALL IN ONE CASE..







Finally..

FINALLY


M O H A M E D T A
L A L
EVERY DAY GAM


LOVELY
TUNNEL ..

SINGLE SHADE BODY ..

5 MINUTES GAME


THANK YOU