

Case Presentation

A close-up photograph of a dental model showing a full arch of teeth. The central incisor and the premolar area are highlighted with a white, glossy material, likely representing a dental restoration or veneer. The surrounding teeth are natural, showing some yellowing and wear. The background is a reddish-pink color, representing the gingival tissue.

By

Dr. Hussein Al Hasani



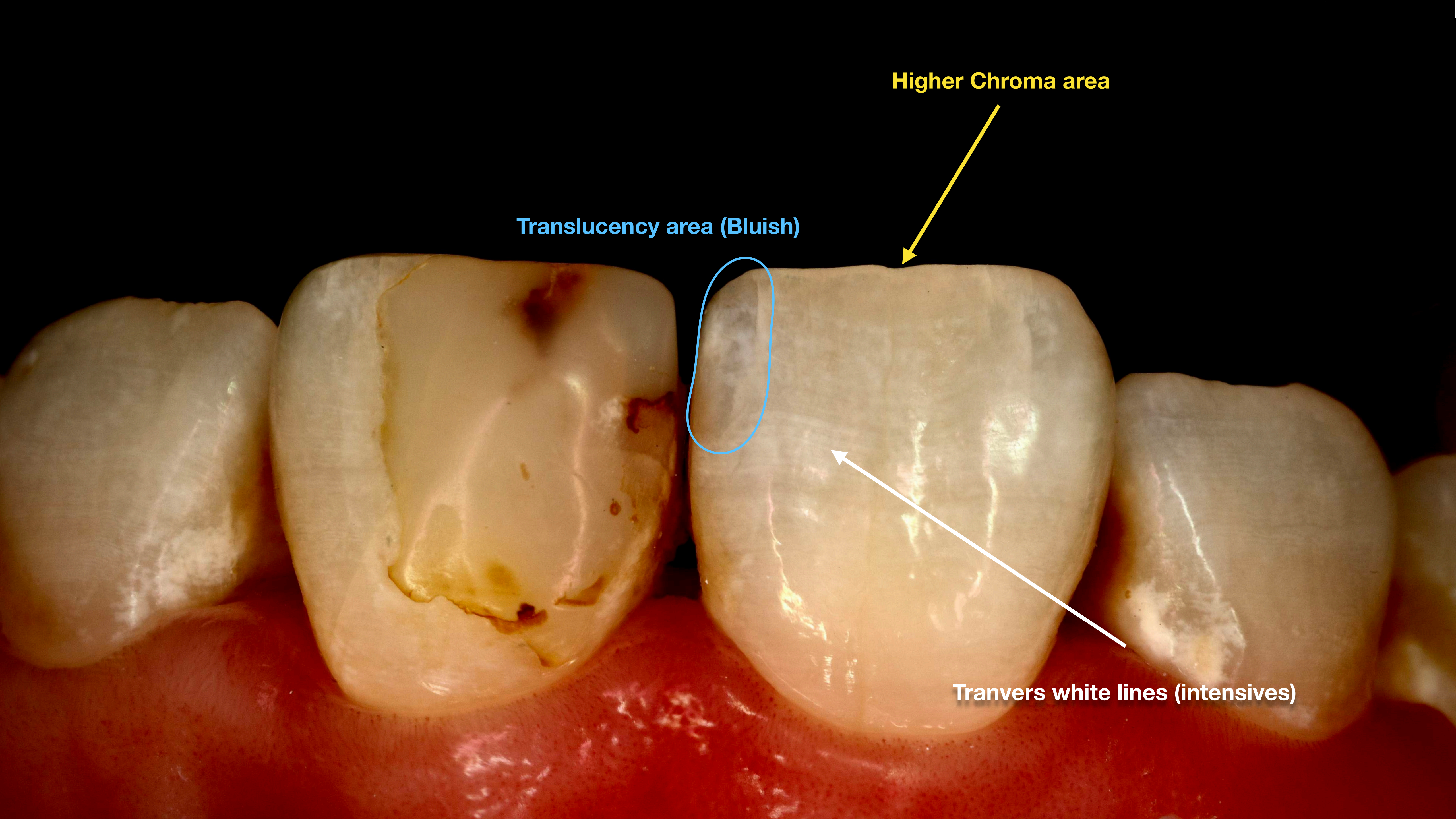
- A 50-year-old patient came to clinic , complaining from bad smile due to non esthetically restored No. 21 tooth . Discolored composite restoration , Uneven incisal length and a small diastema was clearly noticed .



- Intra-oral picture with retracted view of the teeth . As we checked , occlusion has no problem with the intended tooth . It's mandatory to check occlusion and mandibular jaw movement before doing any anterior restoration as they may interfere and that may lead to failure .



- Retracted view of teeth with contrast .



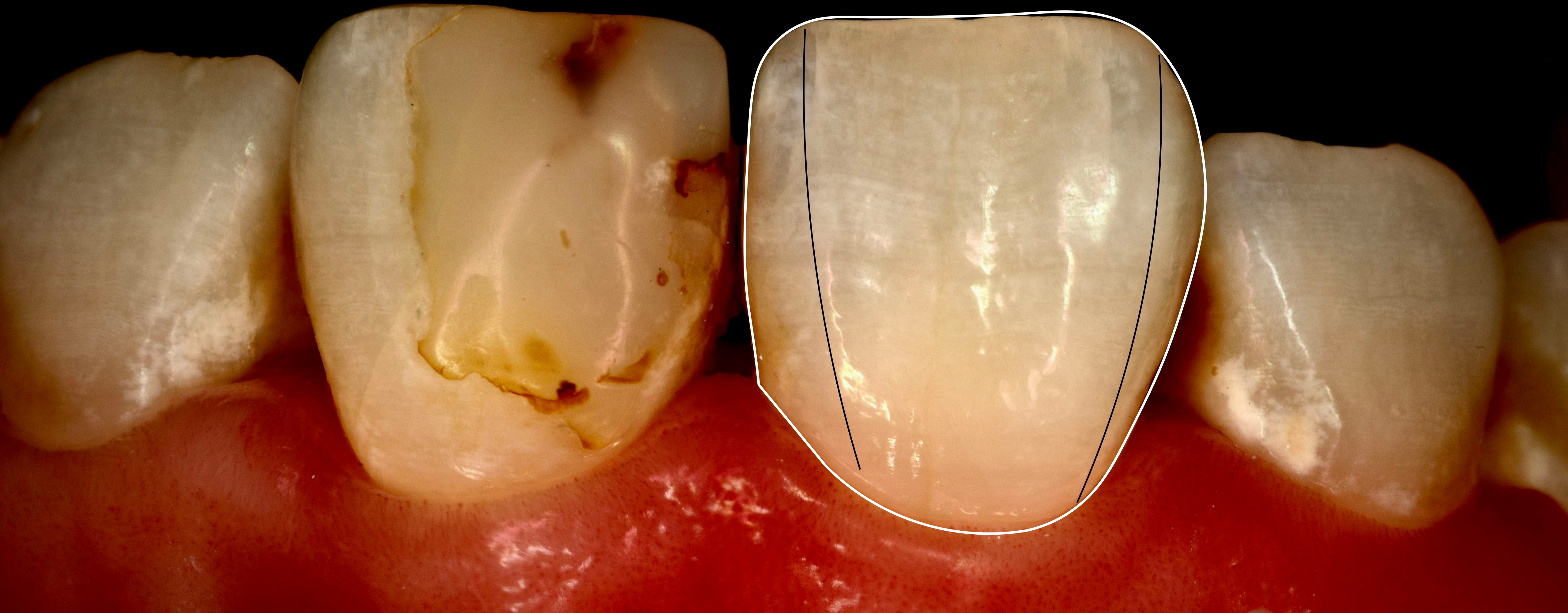
Higher Chroma area

Translucency area (Bluish)

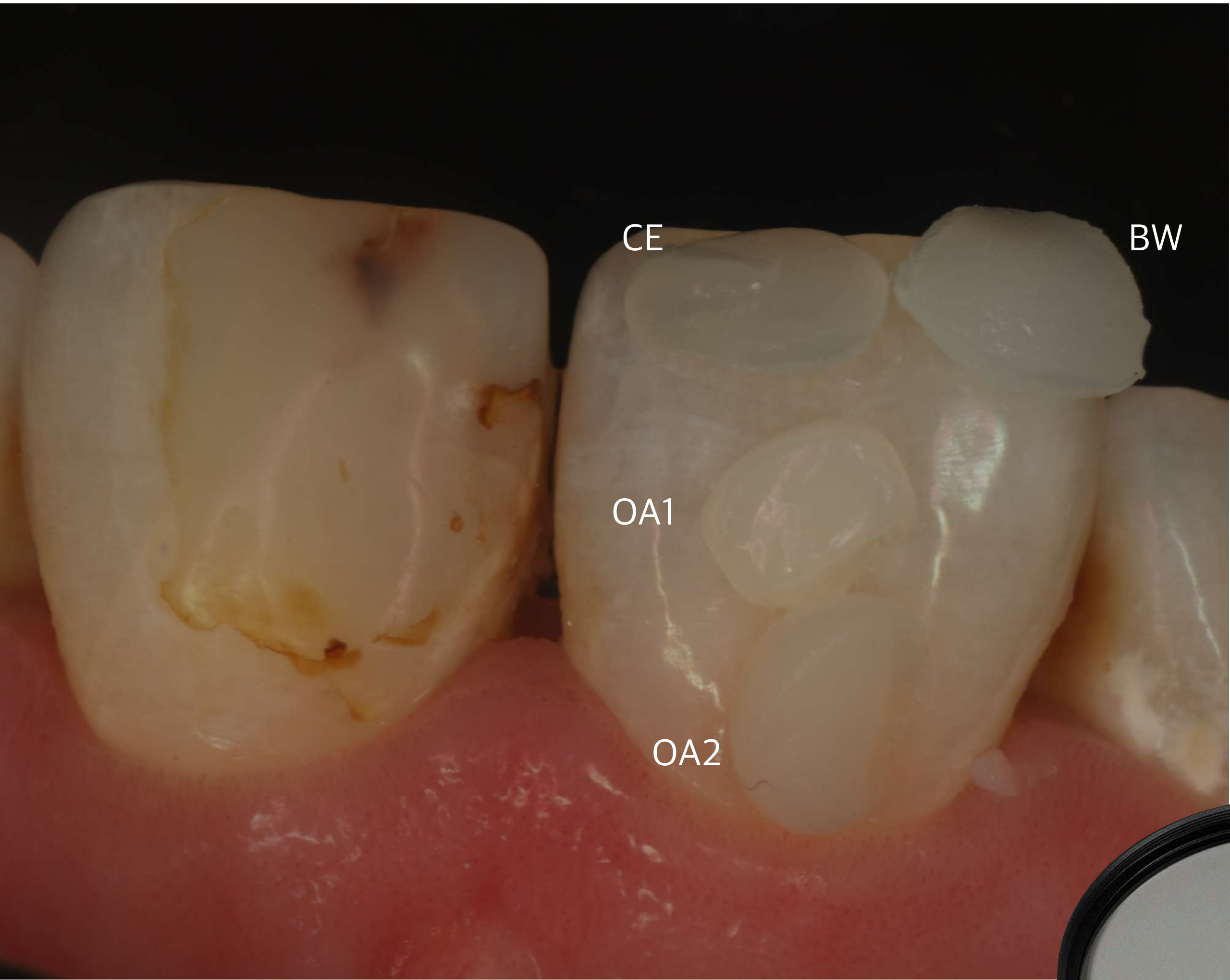
Transvers white lines (intensives)

- As I always do initially , I analyze the shade , shape and texture of the adjacent brother natural tooth to be mimicked by the new restoration as possible as I can . As shown in this photo , I used **Polarizing filter** that gives the true color and chroma of teeth . As I analyzed the tooth . It was complicated tooth due to various characteristics in the same tooth . We have intensives (Transverse white lines) , proximal translucency and higher incisal chroma .

Outline and Transitional line Angles



- Then went forward to analyze and draw the outline of the tooth , as well the transitional line angles that play a certain game with light reflection and tooth width in light illusion .



- **Composite buttons technique + Polarizing filter** is one of the most effective methods to gain the true shade of tooth .



- The two centrals were isolated well . Old composite was removed and cavity was sandblasted with 50 micron **Aluminum Oxide** powder . Then we applied adhesive (***Tokuyama Universal Bond***) and light cured for 40 seconds .



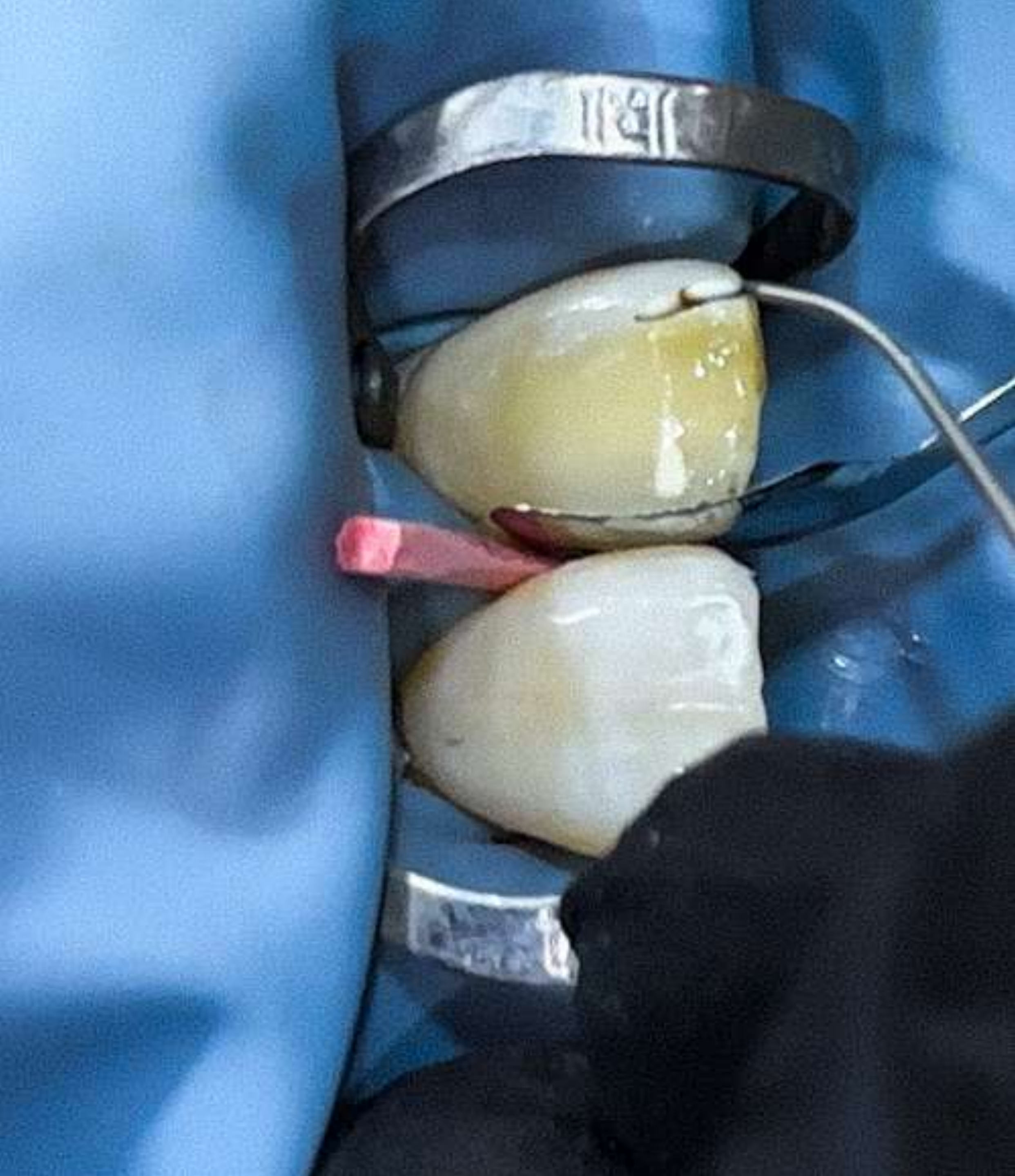
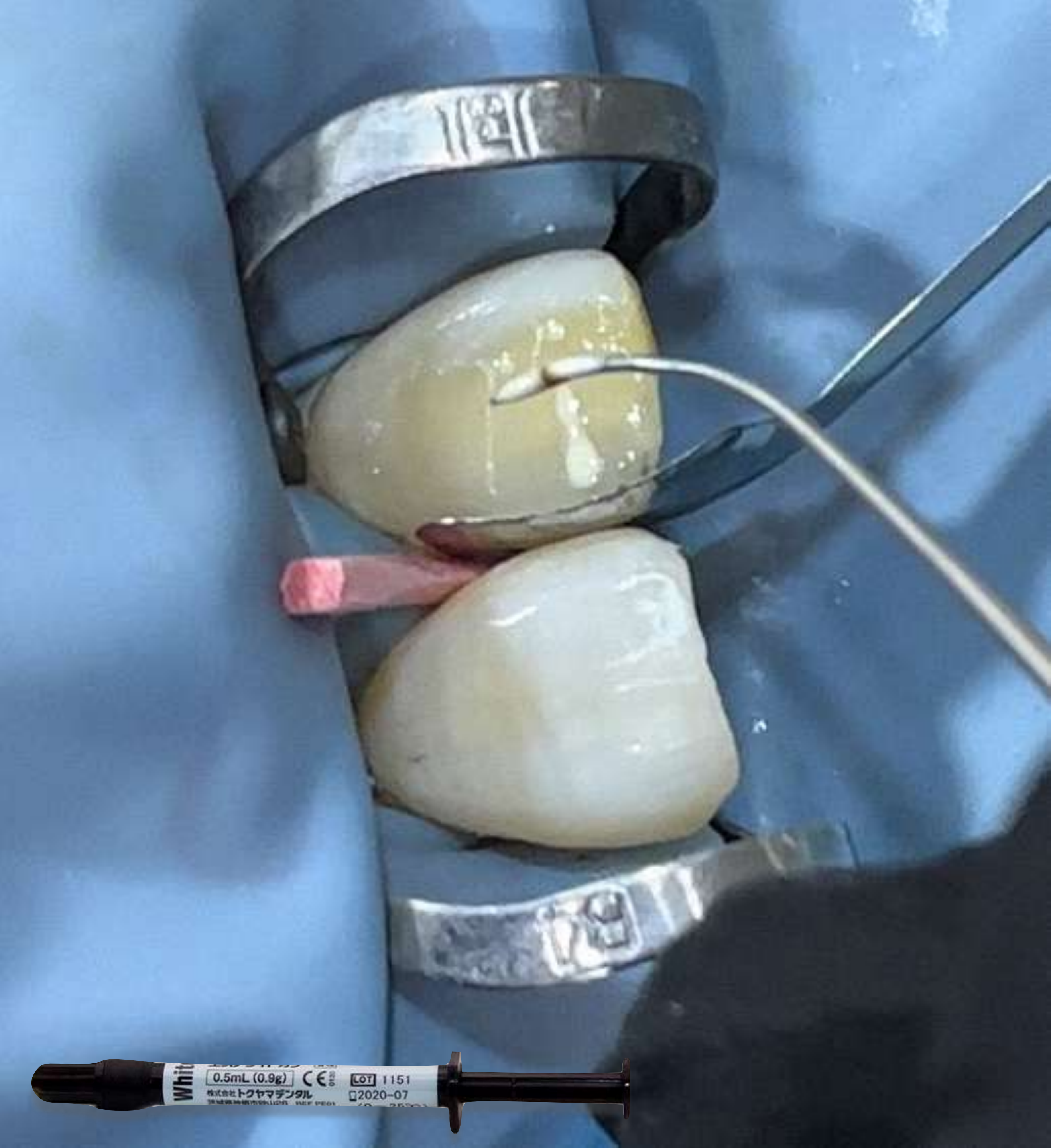
1111

B4

PALFIQUE LX5

OPA2

- As the adjacent tooth has no incisal translucency , I didn't need a translucent composite to restore the palatal wall . Here I used **OPA2** to gain more opaque shade . Then **OA1** as dentin layer .



- Those white lines of the adjacent tooth can be reproduced by color modifiers from **Tokuyama** . ***Estelite Color White*** was used to gain that intensive effect . You need ***Fissura*** from ***LM Arte*** to draw the thin transverse lines , and a micro brush to remove the excess .



Translucency area (Bluish)



- That translucent area (blue area) needs color modifier as well to be reproduced . ***Estelite Color Blue*** achieved the goal .



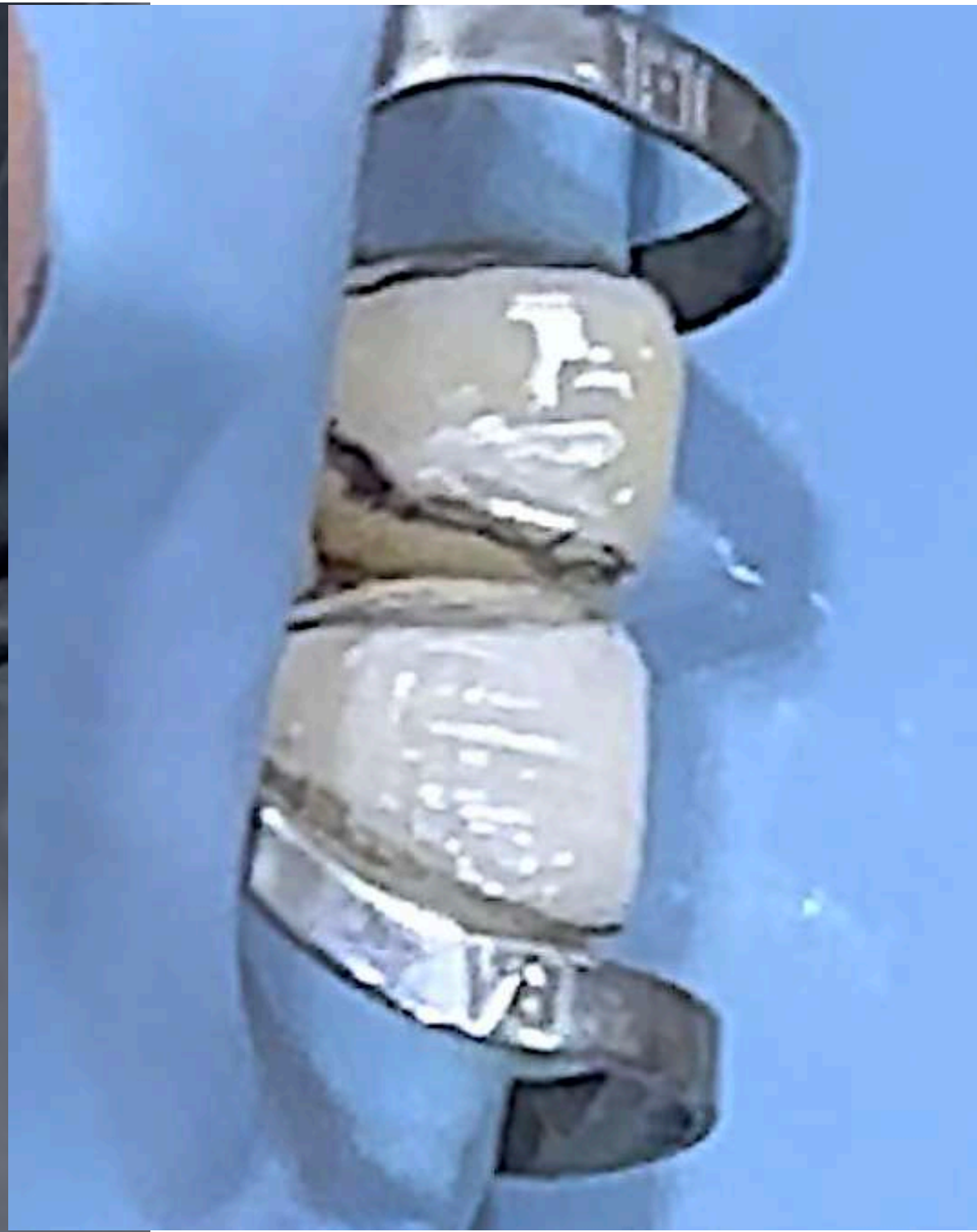
BA

BA

PALFIQUE LX5

0A1

- Final Layer was **OA1** shade , but with a little thickness to maintain the appearance of underlying effects . With finishing and texture making , we can reduce the thickness of this final layer even if we applied more thickness of **OA1** shade . The reason I used **OA1** here is to maintain the chroma of the tooth .



- Drawing the finishing and re-contouring map with a pencil , can simplify the case and reduce the time of working . Discs from **3M** were used for re-contouring , **Enhance** burs for pre-polishing , initial smoothing . Diamond bur for texture making and ***Eve twist*** for final polishing step .



Hussain Alhazani



Hussain Alhazani



- Final Result 1 week after . You can notice the degree of similarity between the two centrals . As we know , nature is never 100 % reproducible , though it can be similar as much as possible .



Conclusion

- Analyzing the tooth (Shade and shape) can make the case easier in daily work . Composite brand that provides natural shades and various colors, can give you freedom to work comfortably during the treatment procedure and give you confidence to do all the restorations powerfully . Also using proper devices like Polarizing filter can facilitate the whole shade selection dilemma . And finally , giving enough time for case and never rushing , has a very important role in work results .

References

- Layers: An Atlas of Composite Resin Stratification , Jordi Manauta .
- Modern Operative Dentistry: Principles for Clinical Practice , Charlos Rocha