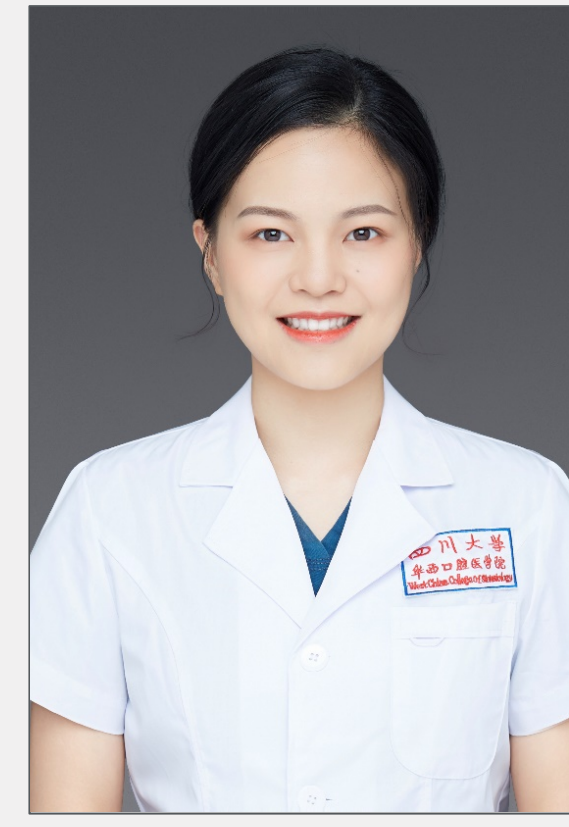


Global Clinical Case Contest 2019-2020



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Introduction to the case

A 22-years-old male came us complaining about poor esthetics of his anterior teeth. After analysis, direct composite restoration was chosen to rehabilitate the caries lesions and make micro-adjustment to his incisal line. In this case, direct composite restoration is the preferred option for multiple caries lesions combined with aesthetic adjustment demand. Aesthetic and functional rehabilitations were achieved with the state-of-the-art nano ceramic restorative.



Pre-operate look showed caries lesions on #8, #9, #10 affecting cervical region and incisal edge. The incisal line and width of #8, #9 were lack of proportion.



Final result showed reconstructed #8, #9, #10 with color and translucency blending in the surrounding teeth. Aesthetically pleasing incisal line was created. Patient's satisfaction was obtained.

Treatment steps



Caries treatment and cavity preparation

Caries was removed carefully to preserve vital pulp. Temporary fillings were made with glass ionomer.



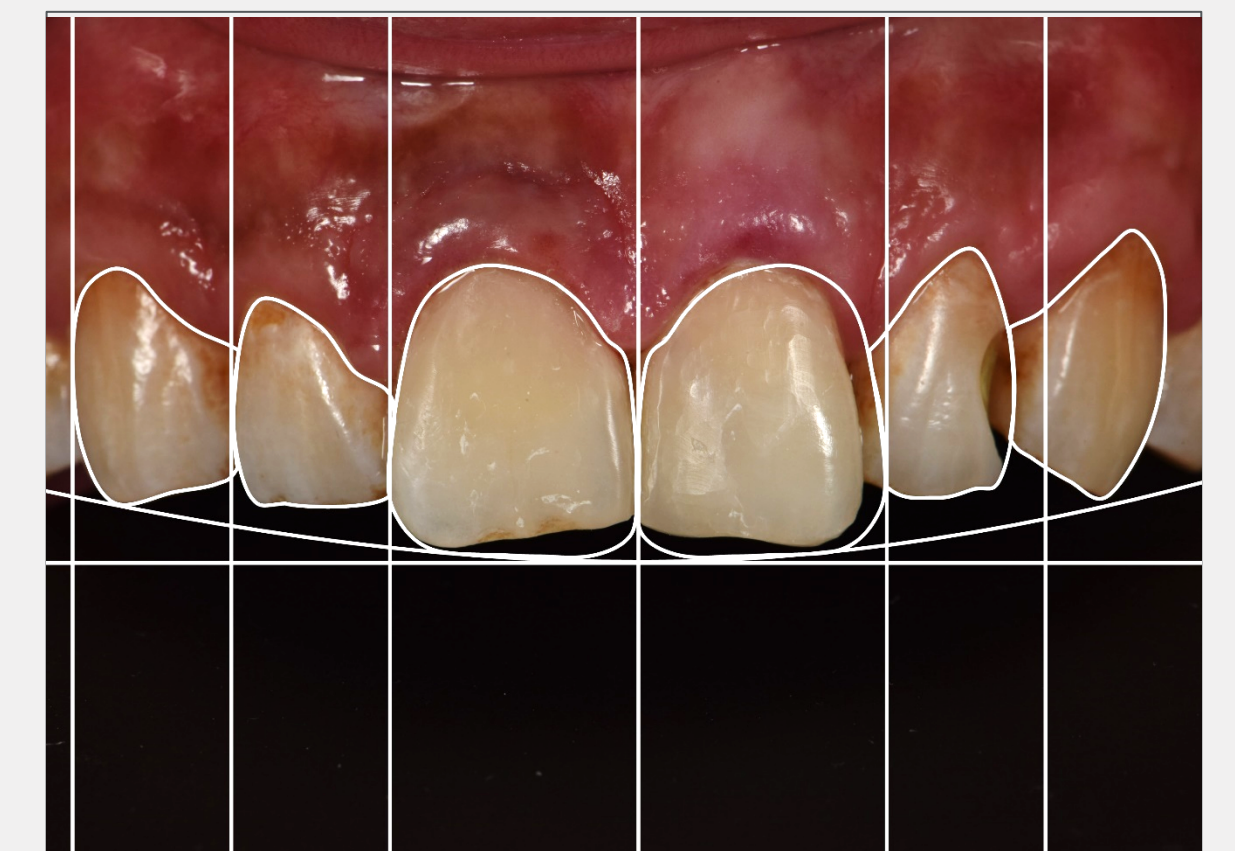
Class I cavity rehabilitation

37% phosphoric acid gel was applied on for selective etching. **Xeno® V+** adhesive was applied on enamel and dentin. The cervical cavities were restored using **SDR®** and **Ceram.x® one (A2)**.



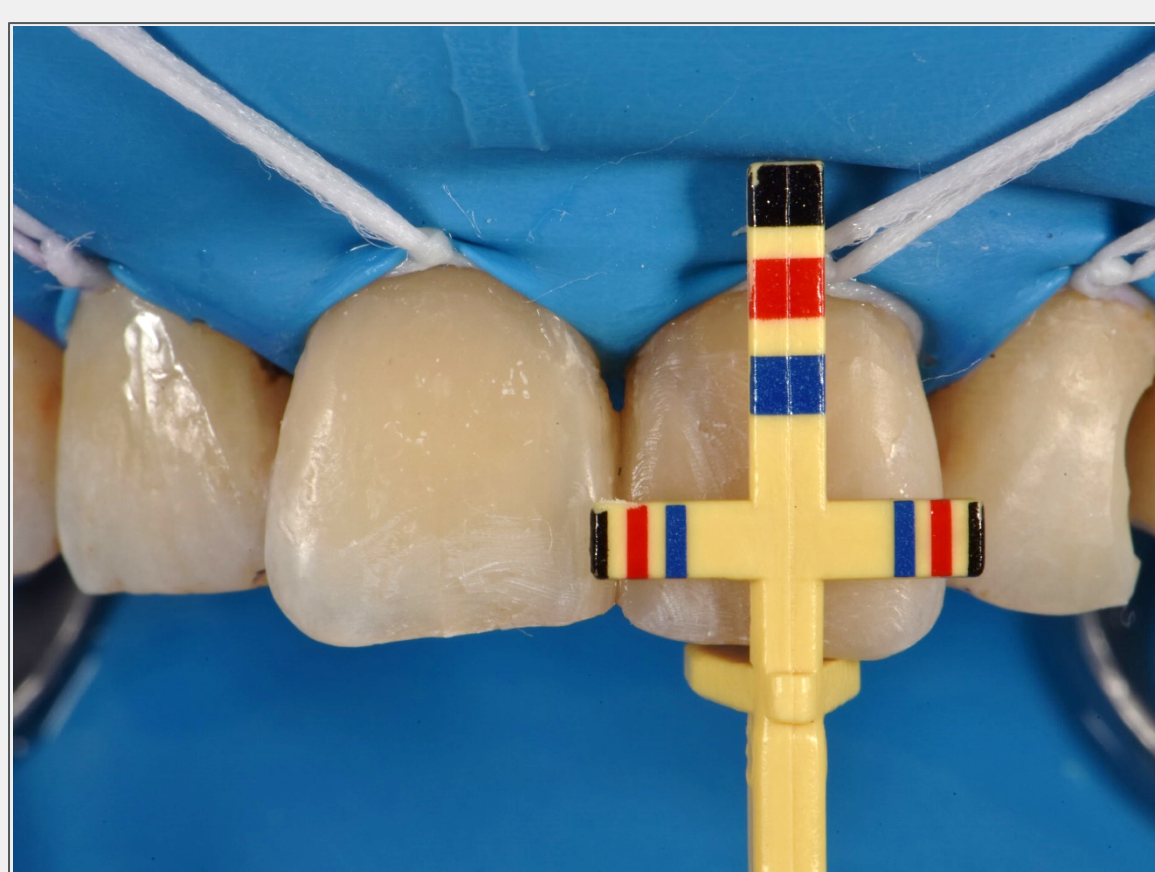
Class IV restoration with silicon key

The palatal and proximal walls of #9 were built under the guidance of **Palodent® V3** matrix and silicon key. **Ceram.x® duo** was used to rehabilitate dentin layer (D2) and recreate translucent enamel on incisal edges (E3).



Esthetic assessment

According to digital smile design (DSD) and clinical assessment, the aesthetic complication of #7, #8 were the concaved incisal line and asymmetric width.



Measurement and Additional restoration

#8 and 9 were measured by proportion gauge tip. Additional restorations on #8 and 9 was sculptured under the guidance of wax-up (**Ceram.x® duo D2, E3**).



Polishing and finishing

Transition line and anatomy were applied by carbide tungsten. Surface texture was created by blue tapered diamond bur. The restorations were finished and polished by **Enhance®** finishing system and **Enhance® PoGo**.



Immediate result

The lateral view revealed desirable color and opalescence effect of the additional restorations. The high-end glossy finish and vivid micro-texture successfully mimicked the natural enamel.



Immediate result with smile

#8 and #9 showed natural incisal line \coordinate with the curve of lower lip.

Material and Method

#8 and #9 were selectively etched with 37% phosphoric acid and bonded with **Xeno® V+ adhesive**. The cervical lesion was covered by glass ionomer and lined with **SDR®**. **Ceram.x® one A2** was layered on cervical area. Class IV cavity of #9 was restored **Ceram.x® duo (D2, E3)** under the guidance of silicon index and **Palodent® V3** matrix. Wax-up with adjusted incisal edge of #8 and #9 was made. Additional restoration was built on the incisal edges and labial surfaces of #8 and #9 with **Ceram.x® duo D2, E3**. The restorations were contoured and finished using **Enhance®** finishing system and polished by **Enhance® PoGo**.

Discussion and Conclusion

Patients with multiple caries lesions are always challenging for practitioner to treat. With modern material, we are able to create reliable and aesthetically pleasing direct composite restorations with faster and simpler process. The self-leveling **SDR®** can create smooth, flat surface for composite sculpture. **Ceram.x® one** universal with chameleon effect and moderate translucency provide precise shade matching in cervical region, while **Ceram.x® duo** with enamel and dentin shades is more suitable for class IV restoration for translucent and opalescence effect of enamel. The editable property of direct composite restorations allows minimal-invasive addition and easy repairment, providing options for further aesthetic adjustment in any time.