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**ESTHETIC AND FUNCTIONAL
INTEGRATION WITH DIRECT COMPOSITE
RESTORATIONS**

32 Views - Jul 2017

The increased use of direct composite restorations can be mainly attributed to patient demand for esthetic restorations in a very short time and the availability of composites with high strength and excellent esthetics offered by the dental companies.

The esthetic characteristics of the composite materials should be in tandem with the functional requirements of strength and morphologic stability, biocompatibility with the surrounding tooth structure and the ability to adhere to the tooth surface for a long time.

In dental clinical practice not all patients present indications for ceramic reconstructions, because of different reasons: final outcome, patient conditions, patient chief complaint, time, costs, etc.

Using composite reconstructions in anterior region provides patients with quick aesthetic results, and the possibility to have a long term mock-up for esthetic and functional reasons, and also less expensive treatment; for the dentist, composite is a good tool for communication with the patient, functional test of the restorations and also few hours work for creation.



Img. 1 - The chief complaint of the patient was the unpleasant color of the anterior composite reconstruction and also the fact that the filling broke many times in the last year.



Img. 2 - In those cases in which the patient reports frequent breaking of restorations, the last thing that I take in consideration is that the dentist done a bad adhesion. The main concern about these cases is the malfunction of the reconstructions.



Img. 3 - In this particular case I asked the patient to do the protrusive movement. I found an interference on tooth 11, exactly on the composite reconstruction. A new composite reconstruction with the same length and shape for sure will fail with all the best adhesive systems that exist on the market. To have proper

contacts during the protrusive movements I decided to redo the 11 with the same length and 21 longer. To improve the aesthetic result I also proposed to change the buccal aspect of the centrals and to add two no prep composite veneers on each laterals.



Img. 4 - The layering was made with one single shade with maximum focus on new shape design. I usually start with one central; after that, I finish the contour and primary anatomy and then reconstruct the other central using the first one as a reference.



Img. 5 - After one session of 2 hours I have reconstructed all 4 incisors with one mass of composite, A1 from Brilliant Ever Glow.



Img. 6 - In the cases with many composite veneers I have 2 clinical sessions. One for reconstruction and one for finishing and polishing procedures. In the second session, that takes about 1 hour, I follow the surface texture guide, described very nicely in the "Layers" by Jordi Manauta and Anna Salat. I start with the outline finishing and then with the primary anatomy represented by the transitions lines.



Img. 7 - Using abrasive discs and diamond burs I adjust the position and direction of the angle lines.



Img. 8 - The main objective at this stage is to have as much as possible, the same distance between the transition lines at the cervical region, central and incisal level.



Img. 9 - TIP: To measure the distance between the transition lines a periodontal probe can be used.



Img. 10 - Just after we have proper primary anatomy we move forward to the secondary anatomy.



Img. 11 - To mark the secondary anatomy articulation paper can be used. The desired secondary anatomy is drawn with a pencil.



Img. 12 - With a diamond low speed bur from Komet "Finishing Style" powered by Stylelitaliano create the secondary anatomy. At this step, to have better control of the procedure no water is required.



Img. 13 - The aspect after finishing the secondary anatomy. At the end of this step, the surface has to be very smooth. The smoother the surface, the glossier the final esthetics.



Img. 14 - Finishing the surface with DIATECH Shape Guard and wool wheels.



Img. 15 - Checking the contacts during the laterotrusion movements left and right and the protrusive movements.



Img. 16



Img. 17 - After the incisal border reconstructions of both centrals there are contacts on both centrals at the end of the protrusive movements.



Img. 18 - Also on the protrusive guidance both centrals guide on the proximal ridges.



Img. 19 - The final result after finishing and polishing procedures - 3 hours total working time (2 hours construction and one hour finishing and polishing)



Img. 20

Composite reconstructions still could be a very good option to reconstruct the aesthetics and function in the anterior region in a very short time and with a lower budget for the patient. Also in some particular cases these kind of reconstructions could be a long term mock-ups, with the purpose to analyze the esthetic and function integration for a future ceramic reconstruction.

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