Introducing the Dental Lab Tribune

Dr. Sami Bseso & CDT, Aiham Farah

45 year old female presented to the clinic unsatisfied with the appearance of the composite veneers she had on her upper and lower anterior teeth, besides a phonetic problem with the letter S in particular. She desired functional and aesthetic restorations.

Diagnosis:
Intra Oral clinical exam showed discoloration, lack of vitality, and poor appearance of the composite veneers she had on her upper and lower anterior teeth, in addition to a phonetic problem with the letter S in particular. She desired functional and aesthetic restorations.

Dental Tribune section aims to influence the practice of Dentistry on a Dental Lab, research, industry and policy-maker level on international basis. Readers will have direct contact with industrial players in a knowledge exchange environment, creating a forum for discussions, questions and exchange of valuable information through our ‘feedback session’.

For the above targets, I would like to invite all Dental Lab Specialists to interact with Dental Lab Tribune. I look forward to exchanging all related Dental Lab experience with you.

Yours faithfully,

Rodny Z. Abdallah
Certified Dental Technician

Crows VS Veneers

All the way to creating esthetic Reconstruction of aesthetic & its functionality in combined (Crowns-Veneers) case.

Fig 1: Preoperative situation showing the poor appearance of the composite veneers on the upper and lower anterior teeth.

Fig 2: Full crown preparation for upper, with rounded shoulder.

Fig 3: Veneers preparation for lower, with equigingival chamfer.

Fig 4: Crowns & veneers (full contour) pressed with (Value 1 ingot) and two coping with (HO1).

Fig 5: Internal effects layering by Impulse material from IPS e-max Ceram.

Fig 6: The cemented lower veneers showing how internal effects scheme treat light.
The reflecting materials have to be adequately reflective without being opaque. The light-absorbing materials should not be applied excessively to produce grey and glassy looking results. We don’t want to fabricate teeth that look great on the model but appear gray and glassy in the mouth.

Foundation bake.
1st. Shading the cervical third and bring it closer to A1 by using shades from IPS Emal Ceram.
2nd. Since my goal is to create teeth that demonstrate the entire spectrum of effects shown by natural dental enamel, I used Impulse material on the incisal third to achieve this spectrum. (Fig 5)
3rd. Sprinkling transpa neutral powder on the whole surface, to cover the parts that are not yet covered by powder materials, lowers the value of the V1 frame, and match it accurately to A1 value wise.

Second bake:
I used shaded Cervical Transparent powder on the cervical third in the second bake. This material demonstrates slightly higher fluorescence than the conventional transparent material, and gives us a smooth transition to the pink gingiva. (Fig 6, Fig 7) show clearly the internal effects on the upper crowns and lower veneers after cementation, the actual look in the mouth and the pink gingiva. (Fig 6, Fig 7)

Surface Texture and glaze:
Ovoid tooth usually is more convex than any other tooth shape, has a rounded outer shape, and curvilinear transition angles with a few lobes. This is why a very narrow and shallow vertical depressions were created on the labial surface of the centrals and laterals giving the interdental papillae their soft esthetic composition. (Fig 12, Fig 13)

Closing the gingival embrasures:
As you noticed from the preparative situation, the unhealthy loss of the grayish interdental papillae is a consequence of wrong countering in the direct composite, where contact areas were elongated toward the tissue, what made the gingival embrasures too close, imposing on the tissue and creating unhealthy periodontal condition. Therefore the tissue receded; and now for the papilla to grow back, the distance between the contact points and the tips of the papilla must be less than 3 mm, which was the main focus of the contouring on a non separated stone model where papillae are still represented there and work can be done relatively (Fig 14).

Cementation and follow up:
Upper anterior restorations and premolars were finally cemented with variolink-N (Base and catalyst), lower anterior veneers with variolink-N (only Base), and posterior crowns with Vivaglass (glass ionomer) cement. (Fig 15)
During the follow up appointment, a final check up and modifications were made to eliminate all occasional interferences.

Conclusion:
Being able to choose the same ingot for fabricating every single restoration in this case (whether they were full crowns or veneers) was a big advantage, it serves in achieving the accurate matching and harmony among all the restorations in the following dimensions (Value, Hue, Chroma, translucency, depth...) as long as the thicknesses were close.

Back to the clinic with try-in
The patient had a clinical try-in of the final restoration; notes and desires of the dentist and the patient were taken into consideration.
Disparities were noted in the smile line (misalignment with the eye line) (Fig 8, Fig 9, Fig 10), an important issue that would have been missed if a clinical try-in was not done. And this is where taking pictures of the patient’s lips and face plays a crucial role in the technician work quality, so he would be able to make the appropriate adjustments while observing these photos.

Third bake:
Fixing the smile line was the main adjustment needed, so I added incisal edge, created the Halo effect (which is caused, in natural teeth, due to light refraction at the incisal edge), and is usually duplicated by using certain material (IE powder from IPS Emal Impulse).
Posterior crowns were built up using the layering technique with IPS Emal Ceram Denin, Impulse and Incisal. (Fig 11)

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