Total facial esthetics for every dental practice

By Louis Malamecher, DDS

Esthetic dentistry has evolved during the last 50 years. This article will demonstrate some of the advancements of the past few years as well as where we are going in the near future.

Case study

This is an interesting case on a number of levels. The patient’s history is of a 42-year-old female who approximately two years ago wanted a smile makeover. Figure 1 shows her preoperative smile.

The patient presented with Class I occlusion and with a midline discrepancy. She wanted a more even appearance to her teeth and a whiter color. The midline discrepancy was of no consequence to her esthetically.

Her periodontium was healthy and she requested a minimally invasive approach. Teeth #8 and #9 are full ceramic crowns that are not the same shade as her natural teeth. Although the shade discrepancy is minor, this did concern her. She had read about a popular minimally invasive veneer and was referred to a dentist for those veneers.

Figure 2 shows this same patient after her minimally invasive veneer treatment. She presented in our office with these veneers and expressed her disappointment with these veneers done by her previous dentist due to a few reasons. She felt that the teeth had no character, were “dead looking” and not lifelike at all, and the cuspsides especially were too bulky, both in their appearance and to the feel on the inside of her cheeks.

This picture is representative of the biggest challenges and complaints that many dentists have about no prep/minimal prep veneers—that they are too opaque and too bulky. At this point, the patient was not yet interested in further treatment to correct her smile even though she was unhappy with the results.

We see in Figure 3 this same patient a few months later. She is still unhappy with the appearance of the veneers, but a much greater concern is the fractures that have occurred with these veneers. Figure 4 shows a retracted close up view of her case.

The incisal one-third of the veneer had broken on tooth #5, the veneer on tooth #7 had completely come off and a temporary veneer was hastily placed, and the all-porcelain crown on tooth #8 had fractured at the gingival third. This is a combination of material and bonding failures as well as poor management of the case from the clinical and laboratory aspects.

This patient also reported having facial pain on both sides of her face and in her temple areas. You may also notice how square the angles of her jaws are. This was not due to her skeletal structure, but to the excessive function of her masseter muscles.

Upon occlusal examination, her occlusion was not equilibrated within normal limits. That combined with the contraction intensity of her masseter and temporals muscles significantly contributed to her facial pain.

In addition to all of this, she expressed interest in smoothing the facial wrinkles around her lips, the crow’s feet wrinkles at the corner of her eyes when she smiles caused by the zygomaticus muscles, as well as the wrinkles in her forehead.

At this point, obviously, the patient is in need of retreatment of this case and we chose to use Aurum Ceramics Cristal Veneers for this case. Figure 5 shows the removal of all of the veneer and composite materials as well as the two all-porcelain crowns on teeth #8 and #9.

Here is where this case really presents a challenge and why working with a talented esthetic ceramic laboratory really starts to pay off. You can imagine that the all-porcelain crowns will be at least 3 to 4 mm thick circumferentially while some of these other Cristal veneers may range anywhere from 0.5 mm thin in some areas to 1 mm thick in other areas, even on the same tooth.

When working with a minimally invasive approach, the ceramist has to have an excellent understanding of the ceramic he or she is using in order to provide the dental clinician with a finished case where the shades of all the different restorations will all match together. This is especially true when doing no preparation/minimal preparation veneers.

The right and left side views as shown in Figures 6 and 7 will show that aside from the two central incisors, all of the other preparations are minimally prepared in enamel, which will certainly pay off in the final strength of this veneer case when the correct materials are used.

At the preparation appointment, botulinum toxin type A (Botox) was expressed interest in smoothing the wrinkles in her forehead, the zygomaticus muscles, as well as the wrinkles in her forehead.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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Figure 8 shows the completed case after insertion and after occlusal equilibration. These Cristal Veneers and crowns are excellent in terms of size and shape and have eliminated the bulkiness and lack of texture that the patient previously complained about. Aurum Ceramics is known as a highly esthetic dental laboratory and it is now bringing their esthetic experience into the minimally invasive veneer market.

Figure 9 shows a close-up of teeth #7 through #10 and you can see the excellent adaptation, texture and color match that was achieved. As the clinician, I used the exact same shade of cement on every restoration in this case. Aurum Ceramics did an incredible job in working with the Cristal Veneer Porcelain to achieve this match, which made my job seating these veneers incredibly easy.

In addition, with the combined treatment of facial injectables and veneers, we were able to go beyond the teeth and give this patient a great looking, natural smile.

Figure 10 is a lifestyle photograph of the patient. The patient reports that her facial pain is gone.

Comparing this to the postoperative picture of the veneers she had previously, these veneers are very lifelike, not at all bulky and have definition.

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(Photos/Provided by Dr. Louis Malcmacher)