**Anterior All-Ceramic Crowns**

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Introduction: The patient presented with no real history of dental treatment. She had mentioned that she would seek dental treatment only when needed. Patient has mentioned a history of alcohol abuse.

(Right) Pre-treatment.

Lingual erosion resulting in supra-eruption of #7-10.

Diagnostic wax-up was made in order to fabricate a reduction guide. This was primarily for measuring my reduction on the lingual surfaces.

Provisionals with Jet Acrylic.

Ten days following prep and provisionals.

Cemented with RelyX Unicem.

Post cementation PAs.

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I assume you used Empress crowns? ■

Excellent preparations! I like your thought process regarding the clear guide to determine preparation design. When working out the diagnostic wax-ups, was there any consideration for the type of anterior guidance desired? If so, how did you communicate these parameters to your technician? Very nice restorations! ■ Sal Aragona, DDS, MAGD

This is one gorgeous case. Love the tissue health, absolutely phenomenal. Regarding tissue management, did you have her on Peridex between the prep and seat days? Do you have a pic of the provisionals that you can post?

The preparations finish subgingivally. Was retraction cord required when you cemented these in? What kind of impression technique (two-cord method)?

What kind of all-ceramic crowns here? Was a bonding agent applied to the preps prior to seating the crowns with Unicem? Did you pretreat the intaglio of the crowns with silane? Regarding reduction, how much? Were you worried about running into pulp on the linguals due to the severe erosion that was already present? What do you think was the cause of the lingual erosion? Any history of bulimia (that's what it sure appears like)?

I also like to use a clear reduction guide made off of the wax-up. I usually take a #2 round bur and place little holes through it. That way I can seat it over the preps and stick a probe through the holes to measure exactly how much clearance I have for ceramic. Great case. ■

Fantastic job. Just for discussion sake: Crowns are very square, the 3 to 4 mm relationship length to which is not respected, but not absolutely necessary, of course. Was the 3 mm of biological space there? The Rx makes it very tight. Maybe CL (crown lengthening) would have taken care of all this. How did you take the print with margins so subgingival? I simply hope that gingivitis won't start in the future. Really, this is absolutely gorgeous and you should be proud, and I am questioning simply to learn. ■

This patient sure must have drunk a lot due to the fact that looks like a bulimic patient's wear on those anteriors. Nice case, but if you are using all-porcelain, why did you go so far sub-g? ■ John Cannario
Was there any consideration for the amount of tooth structure lost in the restorative phase to manage this case? Could a less destructive approach been made?

Would like to see some pictures non-retracted. Who is helping her with her bulimia? Nice crowns, but I agree with the height-to-width ration. A good periodontist could have made this case exceptional.

J. Peter St. Clair, DMD

Great work and technical skill! Just a few comments for discussion though. Why did you make the margins subgingival? I can see that it would enhance the effect for proportions for the centrals, although I agree with the guys that they could be slightly longer, but why so for the laterals? It would be great also to see a shot of your provisionals as the tissues have responded very well in a short period. Did you use any method to protect the gingival col when preparing the teeth? Lastly just to be picky, there might have been just a little more emphasis on micro anatomy for the lateral incisors. Without a doubt though, a fine result for the patient.

That is some sweet tissue! Roe, post more cases. He’s got mad skills.
I used Procera (aluminum oxide core). I didn't have the patient on a regiment of Peridex, but I will post pictures of the provisionals. I used a 000 and 00 cords (two-cord technique). Most times people recommend using particle abrasion prior to cementation, but according to Borges GA: JPD 2003 May; 89(5):479-88, 50-microm aluminum oxide did not change the morphologic microstructure for Procera crowns.

The patient had a history of alcohol abuse. She mentioned that she would vomit quite a bit as a result. Currently she states that she doesn't drink anymore.

As for the comment/question about marginal placement:

Many studies have supported the use of supragingival finish lines whenever possible to ensure periodontal health. However, subgingival finish lines frequently are required for the following reasons: to achieve adequate occlusion dimension for retention and resistance form; to extend beyond dental caries, fractures, or erosion/abrasion or to encompass a variety of tooth structure defects; to produce a cervical crown ferrule on endodontically treated teeth; and to improve the aesthetics of discolored teeth and certain restorations. Finish lines should be located supragingivally when retention and resistance form, tooth condition, and aesthetics permit. (Goodacre et al. JPD 2001; 85:363-76).

Subgingival margins and gingivitis:

Newcomb reported that when subgingival margins approached the base of the gingival crevice, more severe gingivitis occurred. (J Periodontal 1974; 45:151-4).

Waerhaug (J Periodontal 1953; 24:172-85) based on analyses of animal (dog) and human autopsies, indicated that crown margins did not cause pocket deepening if margins were at least 0.4 mm occlusal to the base of the gingival crevice, but according to my diagnostic information, I was slightly over 1 mm from the base of the gingival crevice.

Proe, I have to agree with a statement above... you got mad skills! You have done this patient a great service. I, too am amazed at the tissue health. I for one think the margin placement is spot on in this case, especially with your tissue management. I think the only drawback to subgingival margins is the tissue management. Done properly subgingival margins are better retained, more esthetic, resist recurrent best in my opinion. This is a great case.

Proe, nice preps! For someone with your skill why would you place such deep subgingival margins especially interproximal (where patients clean least)? Between the centrals looks like 4 mm sub-g!

In general, I think dentists over-prep too deep interproximal and under-prep buccal lingual axial walls. Especially with bonded all-ceramics, I do not see need to go more than 0.5 mm subgingivally. Most of my preps are at tissue level interproximal, slightly subgingival on lingual and .25-.5 mm buccally. (Unless some bozo prepped deeply before me.)

I'd like to see that interproximal tissue in one year. And if the patient is not friends with the floss, than tissue will be inflamed very soon. BTW maybe you should consider replacing Jet Acrylic with Bis-Acryl, like Luxatemp. ■ Alex Shvartsman, DDS, FAGD

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