

DEEP FACIAL CARIES TREATMENT

CASE PRESENTATION

A 37-year-old healthy female presented for new patient examination and evaluation. She had not had dental care in more than 6 years and was concerned with the appearance of her front tooth.

Visual examination, digital radiographs and fiber optic transillumination (FOTI) with SDI diagnostic attachment indicated that the decay was rather severe and would require immediate attention.

Discussion involved explaining the potential depth of decay and what treatment modalities would have to be used. I explained that we would probably need to remove tissue to fully access the extent of the decay and that there was also the probability that this tooth would require endodontic treatment. The patient agreed to treatment because she wanted to save the tooth.

After administration of local anesthetic and isolation of the area with Isolite, tooth No. 9 was prepared. Visualization was aided by the use of Rose Microsolutions dental loupes (4X magnification). As excavation of the decay was initiated it became clear that the decay was very deep and extended subgingivally.

I advised the patient that I would need to remove the gingival tissue to identify the extent of the lesion. She agreed. The tissue was removed with a Picasso Lite laser (AMD Lasers), exposing the extent of the damage from the decay. As with any laser use, eye protection is required and the SafeLoupe Laser Filters (DentLight) were directly attached to my loupes to allow continued use of magnification while working with the laser.

Preparation was completed, and excavation of the depth of decay identified necrotic pulpal exposure. I informed the patient and extirpation of the necrotic pulp was achieved. Dry cotton pellets with MCP were placed in the chamber area and sealed with TheraCal LC (BISCO). After isolating the gingival aspect of the preparation, bonding agent was placed and cured, followed by placement of a giomer flowable composite to seal the gingival margins. The remainder of the preparation was restored with a giomer composite, shades A2 and A3, then trimmed and polished.

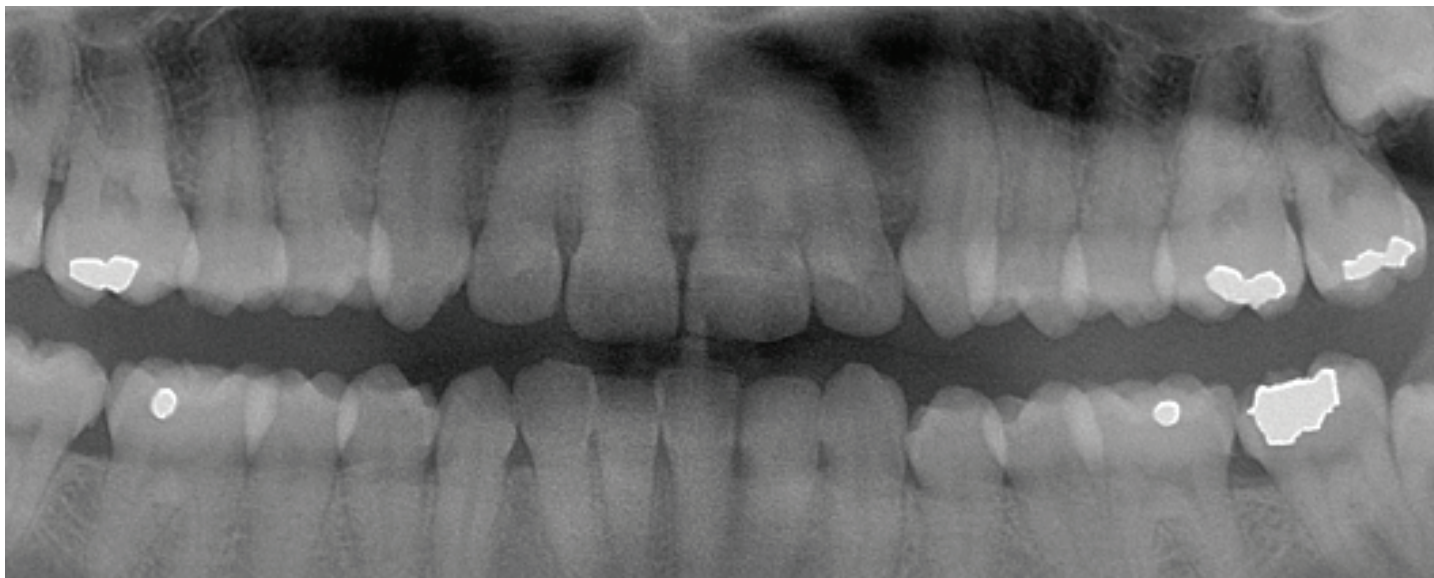
Endodontic access was then made from the lingual aspect of tooth No. 9 and endodontic treatment was carried out and completed.

A very nice final result was achieved, both esthetically and clinically. Next stop: periodontal management.



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Dental Product Shopper editorial board member, has had a private general dentistry practice in Ithaca, NY, since 1983. He is a graduate of Northwestern University Dental School and he received his Bachelor of Science in Biology from Fordham University. Dr. Comisi is a member of the National Dental Practice Based Research Network (NDBPRN). He is a Master of the Academy of General Dentistry, and he also holds Fellowships in the Academy of Dentistry International, the American College of Dentistry, the Pierre Fauchard Academy, and the International College of Dentists. Dr. Comisi is a Past President of the Tompkins County Dental Society, the Sixth District Dental Society of the New York State Dental Association, and the New York State Academy of General Dentistry. He currently holds national office as the Academy of General Dentistry's Speaker of the House.



Figures 1 and 2—Visual examination, digital radiographs, and fiber-optic transillumination of tooth No. 9 indicated that decay was severe and would require immediate attention.



Figure 3—Excavation of the decay on tooth No. 9 revealed extensive decay that extended subgingivally.



Figure 4—After discussion, we chose to remove the gingival tissue to identify the total extent of the decay. The tissue was removed using the Picasso Lite laser (AMD Lasers). This removal of decay showed necrotic pulpal exposure. The necrotic pulp was extirpated.



Figure 5—After sealing the chamber with TheraCal LC (BISCO) and placing a Greater Curve matrix band, Riva Bond LC (SDI) was placed and cured, followed by placement and cure of BEAUTIFIL Flow Plus 00 (Shofu).



Figure 6—The remainder of the preparation was restored with BEAUTIFIL II (Shofu).



Figure 7—After removal of the matrix band, the restoration was trimmed and polished to contour using Komet composite trimming burs and One Gloss (Shofu).

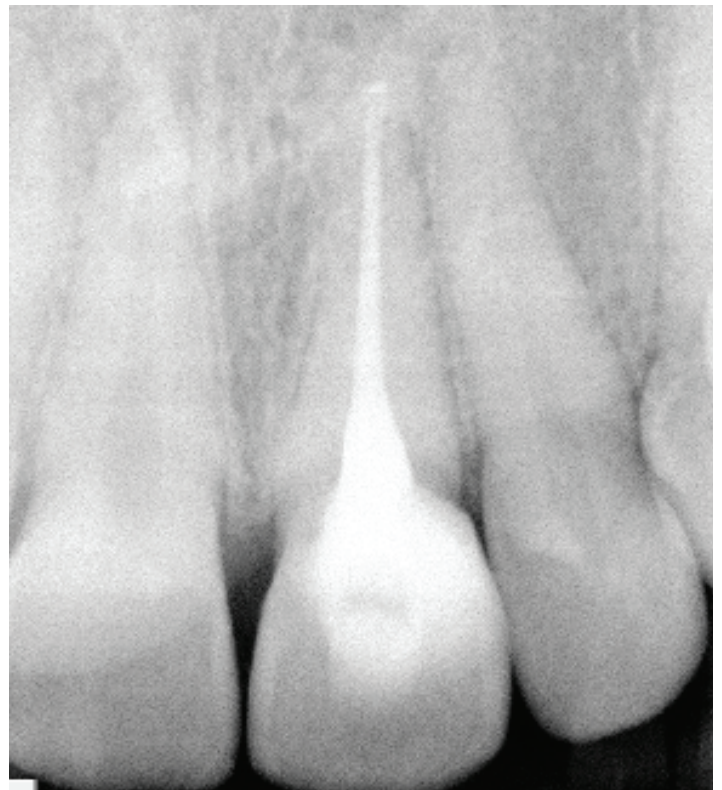


Figure 8—Radiograph of tooth No. 9 after endodontic treatment using EndoGuide burs (SS White Burs) and the SafeSider/Endo-Express Endodontic system (Essential Dental Systems).



Figure 9—Post-treatment photograph. A nice final result was achieved, both esthetically and clinically. The patient will now need to begin periodontal management and treatment.

GO-TO PRODUCTS USED IN THIS CASE



BEAUTIFIL FLOW PLUS

Shofu's BEAUTIFIL Flow Plus' proprietary surface prereacted glass (S-PRG) fillers provide sustained fluoride release and recharge, shown to protect against secondary caries while maintaining a high degree of luster. It is indicated for all classes and formulated for precise handling and adaptation.

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ENDO-EXPRESS AND SAFESIDERS

EDS Endo-Express System with SafeSiders eliminates the fear of fracture associated with crown-down systems and the typical shortcomings of the step-back process. Endo-Express features 30° reciprocating motion that creates a balanced force. SafeSiders are the only instruments with a patented noninterrupted flat side along the working length.

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FUSION

Available from DentLight, FUSION outputs a laser-sharp 2700 mW/cm² focused beam for a 5-second bulk cure. It has a sleek, anodized aluminum body that weighs 110 g. The anodized aluminum distributes LED heat and prevents scratches, discoloration, and other damage from accidental falls.

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RIVA BOND LC

Riva Bond LC features the manufacturer's proprietary ionglass filler—a radiopaque, high ion releasing, bioactive glass. In addition, Riva Bond LC releases high fluoride and possesses bacteriostatic properties that defend against decay. Riva Bond LC achieves a high bond strength through chemical adhesion and by compensating for polymerization shrinkage.

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