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Dental PRODUCT SHOPPER

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CASE PRESENTATION

The 'Vanishing' Class IV Composite Restoration

When it comes to anterior restorations, you really don't want anyone to notice them. All the work you do as a dentist—the preparation, placement, shaping, polishing—should disappear. The patient doesn't want strangers on the street asking, "Hey, nice central incisor restoration. Who's your dentist?" Better to be the invisible hero in these situations.

To make sure the result of your restorative work goes unnoticed, your clinical skills and technique must be combined with tools and materials that aid in that goal. The composite you choose should blend in with any remaining tissue of the restored tooth as well as surrounding teeth. The case described here illustrates how techniques combined with the right materials led to a final restoration that met the patient's request for an undetectable result.

The patient, an 81-year-old woman with no health issues, presented with an existing restoration in the mesial of tooth No. 7 with marginal failure and recurrent decay. During the exam and after taking digital x-rays (DEXIS), we discovered decay around the whole filling. The patient agreed to a composite restoration using EVANESCE nano-enhanced universal restorative (CLINICIAN'S CHOICE).

Treatment

We started by placing Patterson topical anesthetic gel apical to tooth No. 7, followed by Septocaine 4% local anesthetic (Septodont). After the patient was anesthetized, we removed recurrent decay using the Midwest Stylus ATC high-speed handpiece (Dentsply Sirona Restorative) with 330 pear-shaped carbide burs (SS White) and the Bien-Air electric handpiece with SS White's SmartBursII. After preparation was complete, we placed the MiniDam (DMG America) for isolation (Figure 1), followed by TheraCal LC (BISCO) in the portion of the prep in proximity to the dental pulp.

After light-curing the TheraCal LC, we acid-etched the enamel and dentin using Total Etch (Kerr Restoratives) for 15 seconds (Figure 2). We rewetted the dentin with the G5 glutaraldehyde-based desensitizer (CLINICIAN'S CHOICE) and removed excess with high-volume suction. Using a brush, we placed the MPa MAX bonding agent (CLINICIAN'S CHOICE), a simple and proven adhesive that provides very high bond strength, on all of the prepared surfaces (Figure 3) and light-cured (Figure 4).

We used the Bioclear Matrix for composite placement because it's anatomically formed to create appropriate emergence profiles that fill black voids (Figures 5 and 6). While holding the matrix in the proper position (Figure 7), we placed the EVANESCE composite (Shade A3 Universal) into the cavity prep, using the unidose delivery system for accurate placement. Evanesce has exceptional putty-like, no-slump handling. It can be warmed for increased flow when using the Bioclear technique. After light-curing the material, we began finishing and polishing, using 8-fluted ET9 composite finishing bur (Komet, Figure 8) and a flexible abrasive OptiDisc (Kerr Rotary, Figure 9) for contouring. For the final polish, we used the A.S.A.P. rubber abrasive polisher (CLINICIAN'S CHOICE, Figure 9).

The final result (Figure 10) is a natural blend between composite and tooth structure. The EVANESCE nano-pigments and fillers create a chameleon or "Evanesce Effect"—which means "to disappear"—leaving the patient with an undetectable esthetic result.

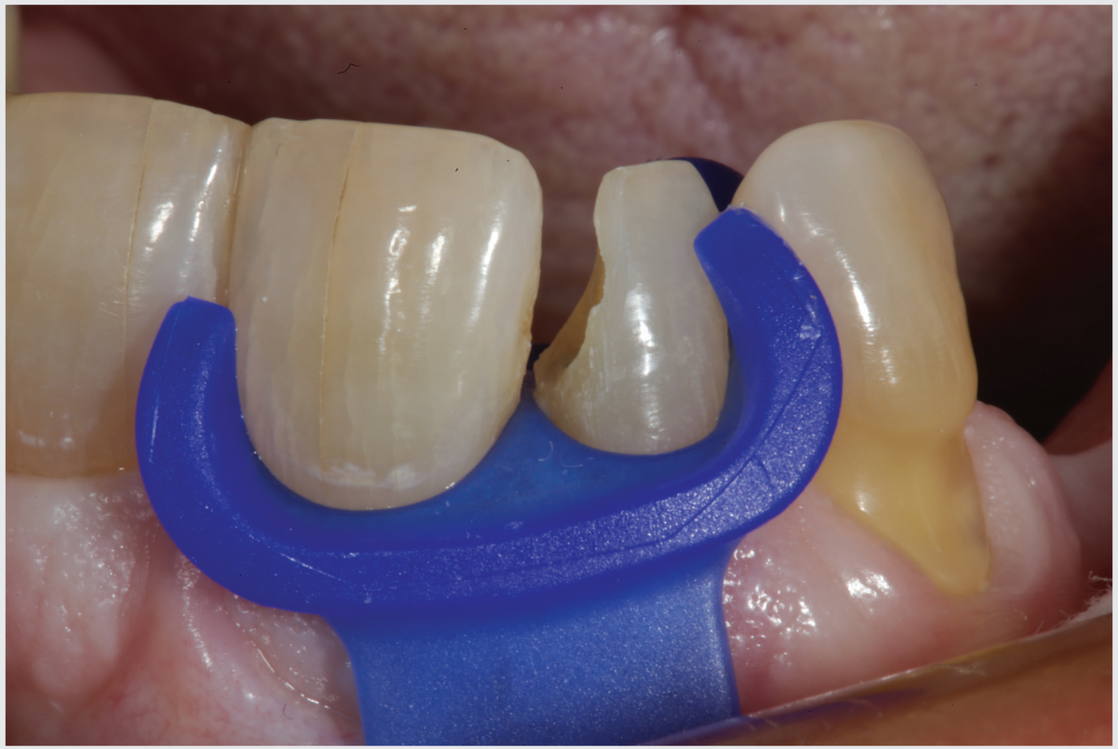

Figure 1—After removal of recurrent decay around a pre-existing composite on tooth No. 7, MiniDam (DMG America) was placed for isolation.

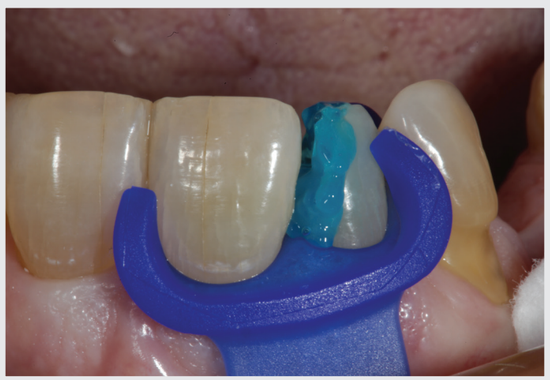

Figure 2—Following placement and light-curing of TheraCal LC (BISCO), enamel and dentin are acid-etched using Total Etch (Kerr Restoratives) for 15 seconds. The enamel was then rewetted using the G5 desensitizer (CLINICIAN'S CHOICE).

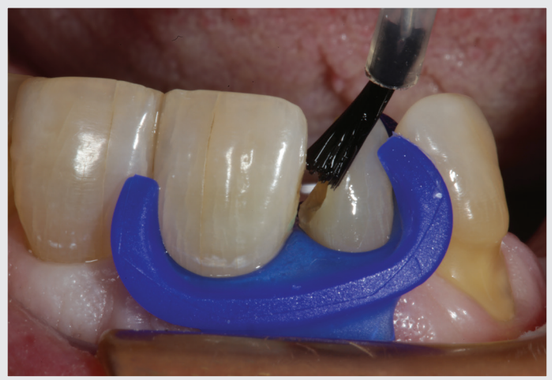

Figure 3—Bonding agent MPa MAX (CLINICIAN'S CHOICE) was brushed onto all preparation surfaces.

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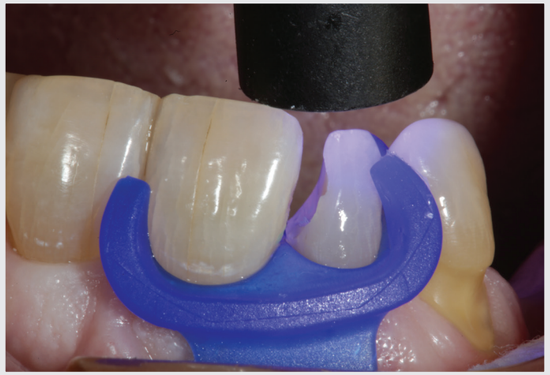

Figure 4—After air-thinning the bonding agent with an air-water syringe to evaporate solvent, it was light-cured using Demi Ultra (Kerr Restoratives).

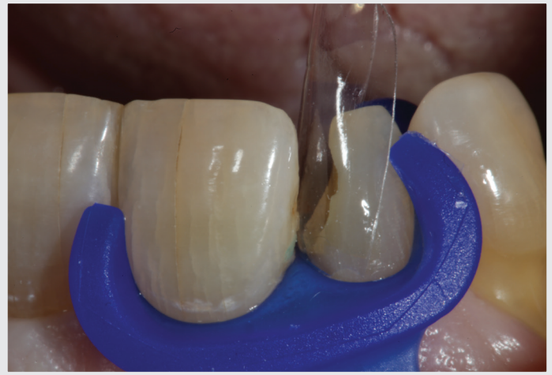

Figure 5—We used the Bioclear Matrix because it naturally contours to the restoration, creating appropriate emergence profiles to fill black voids.

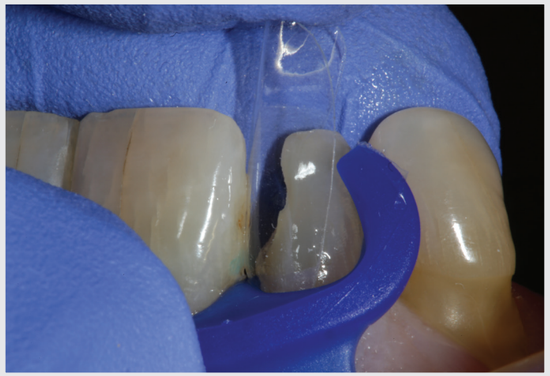

Figure 6—Holding the matrix in the proper position, the composite material is placed in the cavity prep using a unidose delivery system, which allows the material to be placed from the lingual aspect of the matrix and extruding forward.

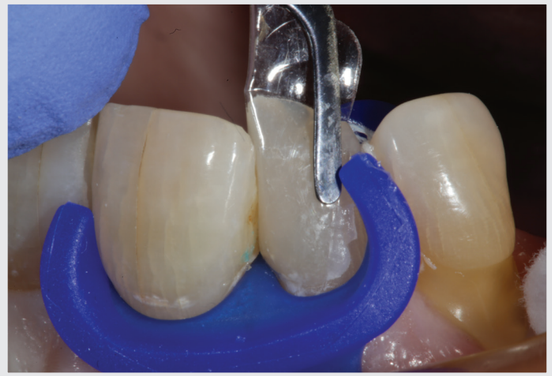

Figure 7—After placement of the composite, the matrix is held in place with a filling instrument to conform to the natural shape of the tooth on the facial and lingual.

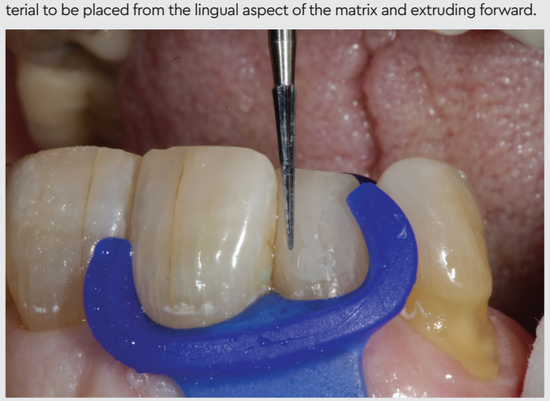

Figure 8—Contouring of the restoration began with an 8-fluted ET9 composite finishing bur (Komet).

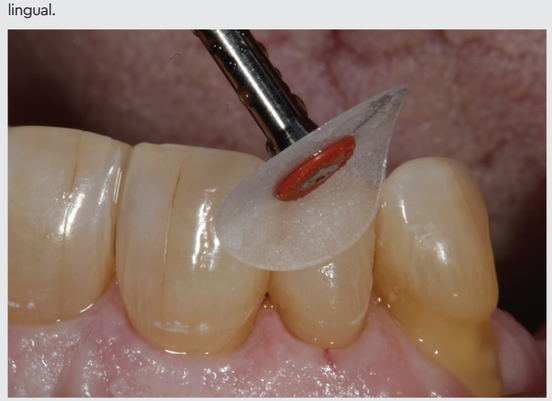

Figure 9—Restoration contouring was completed with OptiDisc (Kerr Rotary), making sure it rotated from the composite toward the tooth. The Bien-Air electric handpiece, which has water spray, allowed control of the direction and speed.

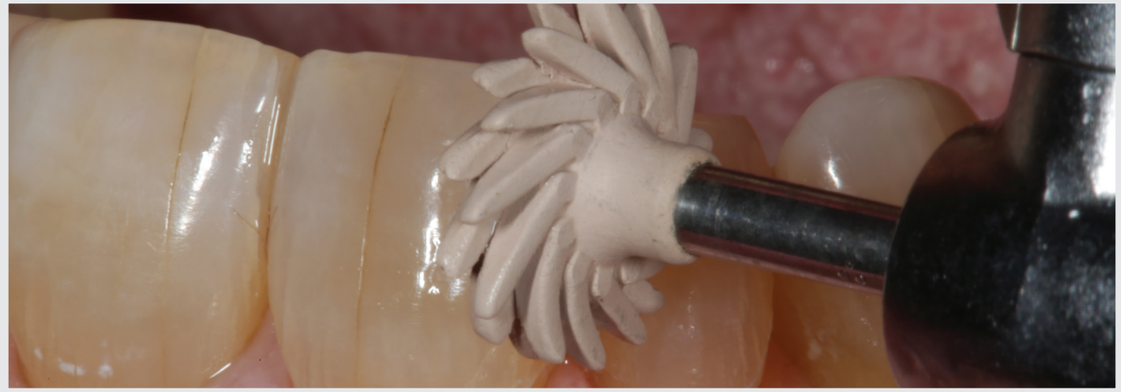

Figure 10—The final polish was accomplished with the A.S.A.P. rubber abrasive polisher (CLINICIAN'S CHOICE).

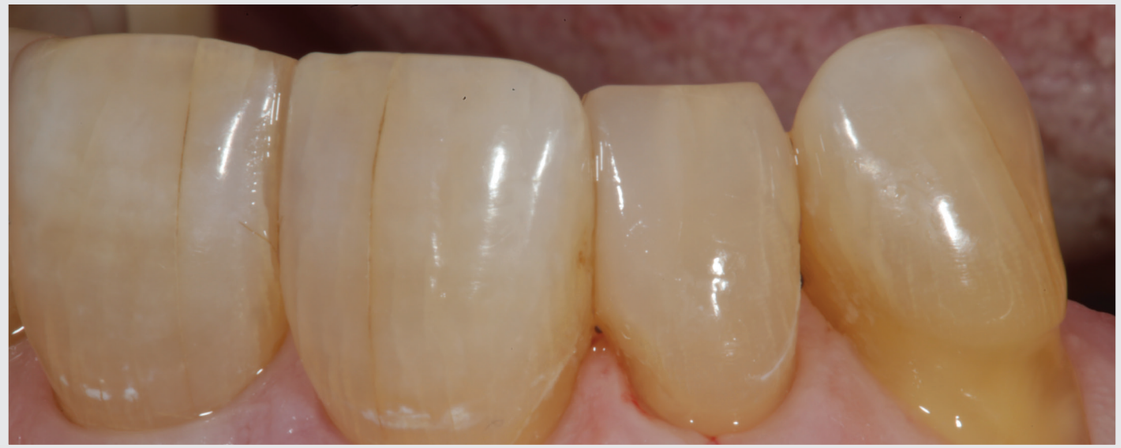

Figure 11—The final result shows a beautiful chameleon effect that blends in with the surrounding tooth structure.

CLINICIAN'S CHOICE **GO-TO PRODUCT** USED IN THIS CASE

EVANESCE

With unique nano pigments and a proprietary process to optimize the refractive index of both filler and resin, EVANESCE achieves the ultimate in esthetics – with margins that simply disappear. EVANESCE exhibits excellent handling properties, allowing you to sculpt the most detailed anatomy without slumping. High strength, coupled with low shrinkage, EVANESCE is ideal for both anterior and posterior restorations; polishing easily to an ultra-high shine.

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