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A 1990 graduate of SUNY at Buffalo School of Dental Medicine, Dr. Kaminer maintains 2 practices, one in Hewlett, NY, and one in Oceanside, NY. He has lectured on lasers and minimally invasive dentistry nationally and internationally. He is the Director of the Masters of Laser training program in New York and is a clinical instructor with the International College of Laser Education. Dr. Kaminer maintains a teaching appointment at Peninsula General Hospital in Far Rockaway, NY. He sits on the advisory boards and is a clinical consultant for numerous dental manufacturers. He has authored numerous articles on dental lasers and minimally invasive dentistry and is a member of *Dental Product Shopper's* editorial advisory board.

CASE PRESENTATION

Treatment of Decayed Molar With a Silver Fluoride System

The patient presented with deep decay on the upper molar. This particular patient was limited financially and was adamant about avoiding root canal. So, we excavated the decay on the tooth and saw that we were in close proximity to the pulp. Before moving forward and bonding our restoration, we decided to treat the tooth with Riva Star, a silver fluoride and potassium iodide product from SDI.

Silver fluoride has been known for years to deactivate plaque, harden dentin that's been affected by carious-causing bacteria, and reduce or eliminate sensitivity. Riva Star can do all those things. The negativity surrounding silver fluoride over the years has been that it would turn teeth black in the presence of caries. So, if you restored it with a composite, you would get darkening of the tooth under the composite. This would not be unhealthy, but it would be unesthetic.

However, Riva Star is different. After excavating all of the decay, in the absence of caries, it is a 2-step process: You treat it with your silver fluoride, followed by an application of potassium iodide. As the second component in the Riva Star kit, the potassium iodide neutralizes the color-changing ability of the silver fluoride and has no deleterious effect on the final result. Silver fluoride, in general, has no detrimental effect on the bond strength of composite or of resin to dentin, and that has been shown in clinical studies.

Having excavated the decay, the dentin was etched for 5 seconds. We then rinsed it off and placed Riva Star according to the manufacturer's instructions, with the silver fluoride followed by the potassium iodide. After rinsing, we placed SDI's Riva glass ionomer, which served as a base that sits on the dentin.

Once that set, we did another selective etch of

the enamel using 37% phosphoric acid for 5 seconds. We rinsed that off and then applied the adhesive over the glass ionomer and enamel. After agitating for

20 seconds, we air dried and then light cured for 20 seconds. Finally, we restored with our composite over the entire prep. The patient was comfortable throughout

the procedure and experienced no sensitivity. The final result is a beautiful restoration with no discoloration. That's the beauty of Riva Star.



Figure 1—Decay was excavated completely and the dentin and enamel were etched for 5 seconds.



Figure 2—Dentin after treatment with Riva Star



Figure 3—A chemical reaction turns the potassium iodide white and then clear again.



Figure 4—Silver fluoride and potassium fluoride are rinsed off.



Figure 5—Riva Self Cure glass ionomer in place as the base material



Figure 6—Final polish of the composite in place; note the lack of staining.

GO-TO PRODUCT USED IN THIS CASE

RIVA STAR

SDI's Riva Star is a biofilm and sensitivity eliminator containing silver, iodide, and fluoride. Unlike other silver fluoride systems, Riva Star's 2-step patented procedure minimizes the risk of staining. By applying the potassium iodide solution over the silver fluoride, a silver iodide creamy white precipitate is formed and washed off. Riva Star is indicated for desensitizing cervical tooth hypersensitivity and cavity cleansing.



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