REPLACEMENT OF DEFECTIVE RESTORATIONS AS TOOTH SENSITIVITY SOLUTION

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A 19-year-old female patient came to our office for an initial examination. She reported tooth sensitivity in quadrant 2, to thermal stimuli and specially sweet foods. After a clinical and X-ray examination, defective restorations were identified in teeth 16, 17, 36, 37, 46, and 47, and also the presence of a supernumerary impacted tooth 19. The patient has been using long-term dental hygiene therapy and was found to be satisfactory.

Tooth 26 in quadrant 2 had a distal occlusal amalgam restoration, but it was impossible to confirm secondary caries from the X-ray image. However, we proceeded to replace the restoration due to the subjective concerns reported by the patient.

After applying local anaesthesia and properly isolating the operating field with a dental dam (Fig. 1), the defective restoration was removed and the secondary caries was excavated. The cavity was checked using a caries indicator (Fig. 2). After refinement of the cavity margins, a sectional contoured matrix with a wedge was applied. Full adaptation of the matrix was achieved with a combination of Teflon tape and matrix ring (Fig. 3). The cavity was then etched with a 37% phosphoric acid gel for 20 seconds (Fig. 4). After a thorough rinse and the removal of excess water, The Retensin Plus adhesive system was applied in accordance with the manufacturer’s instructions (Fig. 5). It was dispersed with a fine stream of air and polymerized for 20 seconds.

Clinical images: courtesy of MDDr. Košťál, Czech Republic.

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A little amount of flowable (Flow-It™ ALC, Pentron) composite was applied to the boundary between the matrix and the tooth and polymerised for 20 seconds (Fig. 6). The interproximal wall was restored using Simile nanohybrid composite material using an A3 shade (Fig. 7). The deepest portion of the cavity was filled with Simile Universal Opaque shade composite (Fig. 8). After polymerisation, the restoration was finished in the standard way again by stratifying it with Simile A3 shade (Fig. 9). The final polymerisation was made under a glycerine gel cover. The last step was finishing and final polishing of the restoration (Fig. 10). The final occlusal check of the restoration was made after removing the dental dam.

The patient’s issues were completely resolved.

Clinical images: courtesy of MDDr. Koštál, Czech Republic.

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