

Tips from practicing dentists on using products to the best advantage

Product Category:
ENDODONTIC INSTRUMENTS
AND SUPPLIES

Dentist: Dr. Ryan Walsh
Practice location: Keller, TX
Type of practice: Endodontic
Years in practice: 6
System/product to be described: NeoMTA Plus
Manufacturer: Avalon Biomed division of NuSmile Ltd.
Company Website: www.avalonbiomed.com

Description of this product and its benefits to the dental patient:

NeoMTA Plus is a standard material in our practice, Advanced Endodontics of Texas. We chose NeoMTA Plus for its versatility and bioactivity and have used it since 2015 for procedures, ranging from vital pulp therapy to endodontic sealer. The product is sold as a powder-gel system with separate bottles for the powder and gel and a 0.1-gram scoop. Because the powder and gel are separate, I can dispense as little powder as needed to mix with the gel. Mixing the powder and gel on a small glass slab from Avalon Biomed using their medium stiffness spatula works well. I can create any viscosity of mineral trioxide aggregate (MTA) I need, from a thick, viscous putty for perforation repair to a thin, stringy sealer consistency. I can vary the viscosity of the mixtures, depending on the needs of the case. In the case described below, we combined thick and thin mixtures of the NeoMTA Plus product to provide optimum care for the patient's tooth, which required

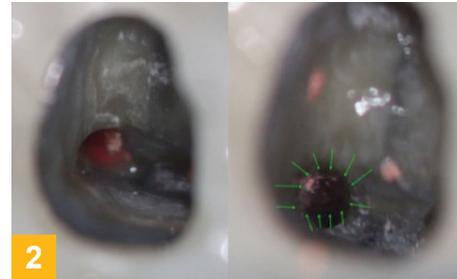


Figure 1: Preoperative periapical radiograph of tooth being retreated.
Figure 2: Coronal view of access of mesiobuccal canal with perforation before and after gutta percha removal..
Figure 3: Postoperative periapical radiograph of completed perforation repair and retreatment.
Figure 4: Two-year recall periapical radiograph showing furcal bone infill and crown retention.

retreatment and perforation repair. NeoMTA Plus' easy-to-mix, bioactive (Hydroxyapatite-forming), color-stable characteristics give me confidence that I am using the best product to save patients' teeth. NeoMTA Plus fulfills our needs for a bioactive bioceramic that has excellent handling, fast setting time, good radiopacity, does not stain, and is affordable (< \$4 per treatment). This product is needed in every dentist's armamentarium.

Step-by-step description of how this product is used with a patient:

A patient sought treatment for a chief complaint of a gingiva/

tooth abscess in a previously endodontically treated tooth (Figure 1). After accessing the mesiobuccal canal, I detected a prior furcation strip perforation. I removed the remaining gutta percha, cleaned and shaped all canals, and placed a calcium hydroxide dressing (UltraCal, Ultradent Products) for 2 weeks (Figure 2). At the second appointment, I irrigated the canals and obturated the distal and mesiolingual canals using gutta percha with NeoMTA Plus as a thin sealer consistency. I obturated the mesiobuccal canal in a similar fashion to a level 2 millimeters apical to the strip perforation. I then mixed NeoMTA Plus with lidocaine to achieve a thick consistency and adapted the material to conform to the

(strip) perforation in the coronal one-third of the mesiobuccal canal. I mixed the gel and powder to create the sealer, but I substituted anesthetic fluid for the gel for the perforation area. When I mixed NeoMTA Plus with lidocaine, rather than the unwieldy "wet sand" consistency of prior generations of MTAs, NeoMTA Plus had a silky clay-like consistency (Figure 3). I restored the tooth with a bonded composite resin with an adjunct porcelain etch and silane coupler for best bond to the porcelain-fused-to-metal crown. After 2 years (Figure 4), the tooth remained in function with healing around the perforation and the retreated roots.