

Distal Hollow Grind with Pin

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The treatment for this patient involved the lower left cuspid and first premolar. The premolar was restored with a conventional MOD inlay, while the cuspid was planned as a distal hollow grind preparation with a pin to keep tissue removal and final restoration as conser-

vative as possible. Although the initial caries was extensive, the final restorations were invisible, except when viewed from a distal buccal aspect. While the patient was not so advised, these restorations will likely serve a lifetime with proper maintenance (Figures 1-15).



Figure 1. Lower left cuspid had been restored with composite but had extensive recurrent caries. The light area is remaining composite. The first premolar shows caries on the mesial aspect and an existing DO amalgam restoration.



Figure 2. Preoperative photo shows the extent of lesion on the cuspid from a labial view.



Figure 3. Caries on the mesial of the premolar after initial preparation.



Figure 4. The extent of lesions following removal of caries and existing restorations.



Figure 6. The tissues are retracted in preparation for the impression.



Figure 8. The impression is poured with tan Fugirock die stone and articulated on a simple articulator, then sectioned.



Figure 5. The distal hollow grind preparation is cut with a #56 bur on the lingual wall to form a dovetail. Care is exercised to avoid opening the isthmus area too wide. The hollow grind is prepared with a Brassler-type #7404 bur. The countersink for the pin is placed with a #6 round bur in the labial gingival area of the cavity, and the pinhole is prepared with a #170 tapered bur. The pinhole should be parallel with the walls of the dovetail of the cavity preparation. The premolar is prepared in the usual manner for a MOD inlay. The tissue sulcus is gently packed with cord (Gingipack #3 saturated with aluminum chloride solution). The cord is left in place for two-to-three minutes.



Figure 7. The impression is taken with a double bite tray and polyvinyl impression material. Application of the material in the pinhole was done with a needle syringe tip to avoid trapping any air.

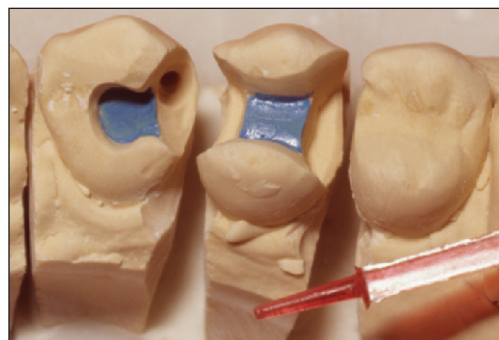


Figure 9. Die spacer is painted on the internal horizontal walls. A #700 tapered plastic burnout pin (The Wilkerson Company, Post Falls, ID, USA) is used to create the pin in the final casting.

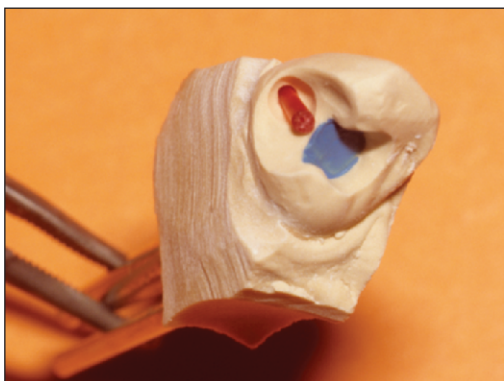


Figure 10. Pin in place for wax-up.



Figure 11. Completed wax-up removed from the die.



Figure 12. Casting, as removed from the investment. Note the counter sink at the neck of the pin. This adds considerable strength to the pin and acts as a funnel to guide the pin into the pinhole during cementation.



Figure 13. Casting examined for proper fit on the die.



Figure 14. Seated and finished cast restorations.



Figure 15. Labial view of the cuspid, which, though extensive, does not display any gold.

ERRATUM

In *Operative Dentistry* **33(4)** 367-369, Tucker Clinical Technique, on pg. 367, the treatment for the patient mentioned involved the upper left cuspid and first premolar. *Operative Dentistry* apologizes for this error.