



Rubber dam clamp placement on partially erupted molars without anesthesia

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The rubber dam has been a useful adjunct in restorative dentistry for many years. With the advent of new techniques and dental materials that are moisture sensitive, rubber dam use has become more imperative. An example of one of these new techniques is the removal of caries using air abrasion. Because the aluminum oxide particles of the air abrasion technique can become a messy paste in the oral cavity when combined with saliva, the use of the rubber dam is desirable for optimum results. However, the very advantage of using air abrasion and flowable composite to restore incipient lesions can be thwarted by the daunting task of applying the rubber dam to a child's partially erupted permanent molar. Of course, local anesthesia could be used for subgingival clamp placement but this defeats the concept of painless air abrasive caries removal without anesthesia. Topical anesthesia can be effective but does not provide enough comfort for subgingival clamp placement.

The rubber dam technique recommended here begins with the use of a clamp that is kind to the tissue, such as a Hu-Freidy #18 (Hu-Friedy, Chicago, IL). Dental floss is first tied to the clamp to assist in retrieval of the clamp in case it is inadvertently dislodged during the procedure. The clamp is then placed on the partially erupted tooth using the clamp forceps and is pushed gingivally to cause a slight pressure on the free margins of the gingiva facially and lingually. The clamp forceps are removed as the dentist and assistant use finger pressure on the wings, both the facial and lingual, to hold the clamp in place. The assistant then mixes a resin reinforced glass ionomer (we use light cured Fuji, GC America, Inc., Alsip, IL, in preproportioned capsules). The dentist uses a gun applicator to place a large bead of the resin reinforced glass ionomer at the junction of the clamp and the tooth on both the facial and the lingual (neither acid etching of enamel nor a bonding agent



Fig 1. Glass ionomer stabilizing clamp.

is needed). The glass ionomer is light cured for 20 seconds on each side. The dentist and the assistant can then remove their fingers from the now stabilized clamp. The rubber dam is applied and the restorative procedure is completed (the Fuji material also aids in sealing the rubber dam against moisture). At this time, the clamp is removed using the clamp forceps. The adhesive properties of the Fuji material on untreated enamel are such as to allow the clamp to be held in place during the procedure, but also to allow the Fuji material to easily break away when the clamp is removed. If there are any remaining tags of glass ionomer, they can be easily removed with a hand instrument or a finishing burr.