Reshaping a Mesiodens

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Abstract

A mesiodens is a supernumerary tooth that is found in the midline of the maxilla. Fifteen percent erupt usually between the ages of 3 and 7. The standard treatment is extraction of the supernumerary to allow the permanent incisors to erupt properly. This case report describes an instance where the primary incisor was prematurely exfoliated due to the eruption of the mesiodens. Because of the favorable position of the mesiodens in the dental arch, it was decided to reshape the supernumerary to resemble a primary incisor. This was accomplished successfully, and the mesiodens is being monitored to assess any need to trim or add to the bonding material as the child grows. (*Pediatr Dent.* 2003;25:585-586)

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Most supernumerary teeth are found in the anterior maxillary region. The most common position of these supernumerary teeth is in the midline.[1] This midline supernumerary tooth has been named a mesiodens because of its position in the center of the maxilla.

Mesiodens are usually conical in shape and may be paired. In children, 85% of anterior supernumeraries are unerupted, and 65% interfere with the normal eruption of the maxillary permanent incisors.[2] The 15% that do erupt can do so at any age, but eruption usually occurs between the ages of 3 and 7. The mesiodens may emerge in the palate or may resorb the roots of the primary central incisors and erupt in their place.

The usual treatment for these erupted mesiodens is extraction. This enables the permanent incisors to emerge in the proper position and at the proper time. In this case report, the mesiodens was not immediately extracted. This was due to the age of the child and the favorable position of the erupted supernumerary tooth.

Case report

A 3-year, 3-month-old white female was presented by her parents to the dentist's office with the complaint of a front tooth that had become loose after biting into an apple. Her medical history was unremarkable, and there was no history of dental trauma. Oral examination revealed a complete primary dentition in Class I occlusion. No restorations or caries were evident and the maxillary left primary central incisor was found to be mobile. The parents consented to a periapical radiograph, which revealed a mesiodens that had erupted underneath the left primary maxillary incisor and had completely resorbed its root. The left permanent maxillary incisor appeared to be slightly rotated (Figure 1). A subsequent panoramic radiograph revealed no other abnormalities.

The parents were shown the digital periapical radiograph on the computer screen. This demonstrated to them that the child had an "extra" tooth that was pushing out the "baby" tooth. It was explained that treatment was not necessary and that the primary incisor would exfoliate on its own. Extraction of the primary tooth was offered but not encouraged since it did not seem to be required. The parents chose to let the tooth exfoliate.

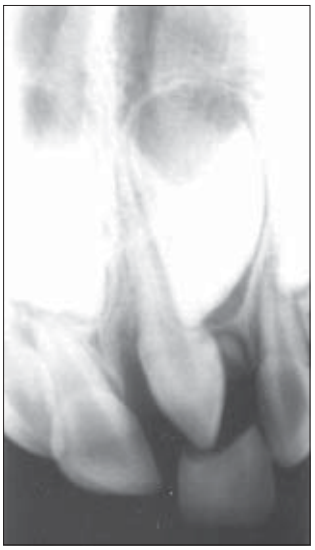

Figure 1. Erupting mesiodens.

The child returned 6 months later for a periodic check-up. At that time, the left primary maxillary incisor was gone and the

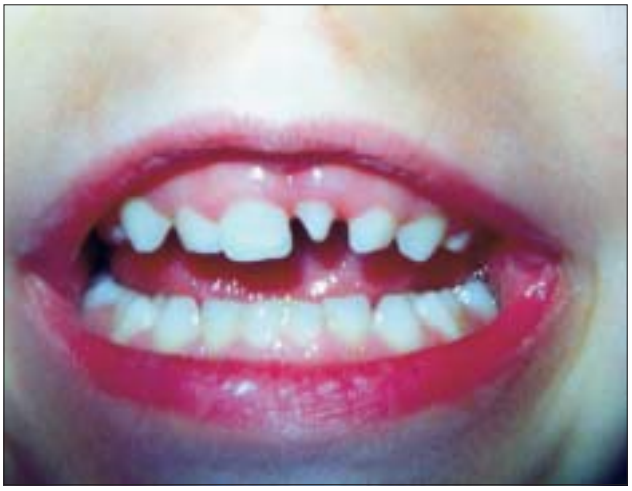

Figure 2. Mesiodens in place of exfoliated primary incisor.

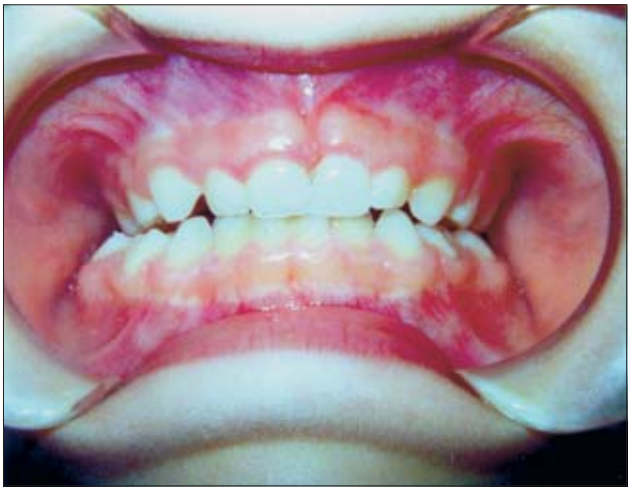

Figure 3. Bonded mesiodens.

mesiodens was visible (Figure 2). The parents were offered the choice of building up the mesiodens to make it resemble the exfoliated incisor, extracting the mesiodens, or doing nothing for the time being. The parents chose to reshape the mesiodens for esthetic reasons.

The child was brought to the operatory, and a celluloid crown form (Unitek, Monrovia, Calif) of the proper size was selected. The gingival portion of the crown form was contoured with a curved scissors. The crown form was filled with a light-cured composite (Prodigy XL, Kerr, Orange, Calif) and set aside in a dark place. The mesiodens was etched with 37% phosphoric acid (3M, St. Paul, Minn) for 15 seconds then washed for 15 seconds using a water syringe.

After the tooth was dried, Scotchbond (3M, St. Paul, Minn) was applied and air thinned. The crown form was placed over the mesiodens and excess material was removed with an explorer. The composite was light cured for 20 seconds on the facial and the lingual. The crown form was removed with a scaler, and excess material on the gingival margin was removed with a finishing bur. The occlusion was then checked and adjusted (Figure 3).

The parents were advised that the mesiodens might continue to erupt. If this occurred, composite might have to be trimmed away or added as necessary. At the subsequent 6-month recall visit, no adjustments were necessary. The mesiodens will be monitored and extracted if it obstructs the eruption of the permanent incisor.

References

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