Microdontic teeth succedaneous to natal teeth: a report of two cases

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Introduction

With one exception, the English dental literature reveals no report of natal or neonatal teeth associated with anomalous development of their permanent successors. In a singular longitudinal study of 12 infants with natal mandibular incisor teeth, Gardiner[1] reported essentially normal subsequent development, except for one infant with natal mandibular central incisors whose permanent replacements failed to develop. He apparently regarded this as a coincidental finding, since he did not speculate on a causal relationship between the presence of natal teeth and the absence of their successors.

We recently observed two children in our clinic who presented with microdontic mandibular permanent central incisors, and a history of mandibular anterior teeth present at birth.

Case 1

A 7-year-old Caucasian male with an unremarkable health history was found to have abnormally small mandibular central incisors which were suspected to be retained primary teeth. The patient's mother volunteered that the child had primary mandibular anteriors present at birth. She described these teeth as being brown and loose. They remained mobile and were extracted at about 18 months of age. No family history of natal or neonatal teeth in siblings or parents could be elicited.

Measuring from plaster casts between mesioincisal and distoincisal angles of the incisors gave values of 3.5 mm and 3.4 mm for right and left centrals respectively.

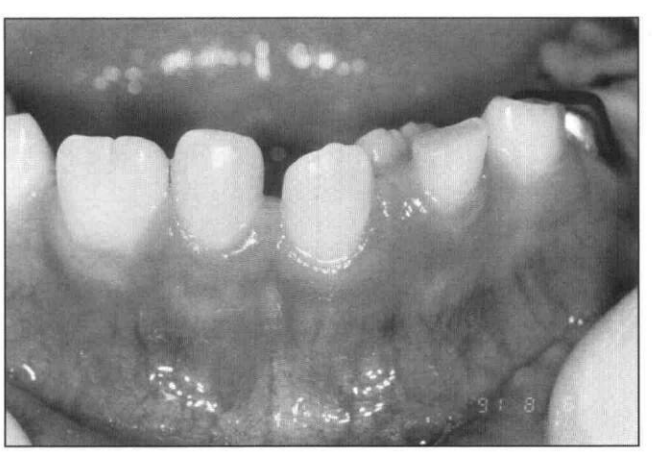

Fig 1. Microdontic central incisors in a 7-year-old male (Case 1).

Case 2

A 9-year-old Caucasian male with an unremarkable health history was found to have microdontic mandibular central incisors. The patient's mother indicated that the child's mandibular primary central incisors erupted approximately one week after birth. They exfoliated normally a short time after the patient's sixth birthday. A history of natal teeth in other family members was denied.

Measurements of the mandibular central incisors made from a plaster cast at the mesioincisal and distoincisal angles were 3.7 mm for each tooth.

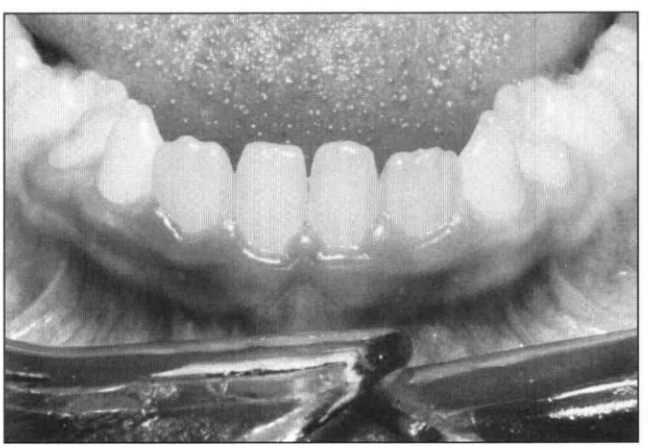

Fig 2. Microdontic central incisors in a 9-year-old male (Case 2).

Discussion

Data given by Garn et al.[2] indicate that the average mesiodistal size for mandibular central incisors in males is slightly less than 5.5 mm. The widths of the central incisors in cases 1 and 2 were well outside the standard deviation of the average width whereas the widths of the lateral incisors were very close to the lower end of the average range (Table, page 401).

Garn et al.[2] also indicate that the width of the average mandibular central incisor is approximately 0.6 mm smaller than its adjacent lateral incisor. In our two patients, the difference in width between a central incisor and its adjacent lateral incisor ranged from 1.7 mm to 2.6 mm. These differences are striking when compared to the expected mean difference of 0.6 mm. Moorrees and Reed[3] have shown that a fairly high

Table. Mesiodistal measurements of permanent mandibular incisors (mm)

	Right		*Left*	
	I_1	I_2	I_1	I_2
Garn et al.*	5.44 ± 0.375	6.03 ± 0.412	5.46 ± 0.46	6.05 ± 0.428
Case 1	3.5	6.0	3.4	6.0
Case 2	3.7	5.5	3.7	5.4

*Mean value for males

degree of concordance (r = 0.73) normally exists between mandibular central and lateral incisor widths in an individual.

These findings suggest that there might be some unknown developmental influence common to the occurrence of natal teeth and abnormally small (mesiodistal dimension) permanent successors. This speculation is weakened by the fact that no similar reports are found in the literature. It is difficult, however, to dismiss the occurrence of natal teeth and dysmorphic successors as coincidental and unrelated.

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1. Gardiner JH: Erupted teeth in the newborn. Proc R Soc Med 54:504–6, 1961.
2. Garn SM, Lewis AB, Walenga AJ: Maximum-confidence values for the human mesiodistal crown dimension of human teeth. Arch Oral Biol 13:841–44, 1968.
3. Moorrees CFA, Reed RB: Correlations among crown diameters of human teeth. Arch Oral Biol 9:685–97, 1964.