Unusual localized microdontia: case reports

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Three rare cases of microdontia of central incisors are reported.


Key words: Microdontia.

The term, microdontia is used when teeth are smaller than normal (i.e. outside the usual limits of variation). According to Shafer et al 1 three types of microdontia are recognized (i) true generalized microdontia, (ii) relative generalized microdontia, and (iii) microdontia involving a single tooth.

Microdontia involving a single tooth is a rather common condition. It affects most often the maxillary lateral incisor and the third molar. These two teeth are among those most often congenitally missing. It is of interest to note that other teeth often congenitally absent, the maxillary and mandibular second premolars, seldom exhibit microdontia. Supernumerary teeth, however, are frequently small in size.

Presented here are unusual cases of microdontia of maxillary and mandibular central incisors.

CASE REPORT

Case 1

A nine year old boy reported to the Department of Pedodontics and Preventive Dentistry with the chief complaint of smaller looking upper front tooth. Extra-oral examination did not show any abnormality. Intra-oral examination revealed the mixed dentition stage with Class I molar relationship. Microdontia of 11 was seen (Fig. 1). Radiographic examination confirmed the diagnosis (Fig. 2). The management included build up by light cure composite resin.

Case 2

A nine year old female complained of irregular front teeth. History revealed the extraction of 84, two months back. Intra-oral examination showed mixed dentition stage with Class I molar relationship and microdontia of 11. The maxillary and mandibular dental midines did not coincide. Retained deciduous teeth (52, 72 & 73) were observed and extracted. Space maintainer was given for 44 region. Orthodontic correction and esthetic restorations were advised.

Case 3

An eight year old girl reported to the department with a complaint of odd looking lower front teeth. Intra-oral examination revealed microdontia of 31. Radiographic examination confirmed a peg shaped 31 (Fig. 4).

DISCUSSION

One of the common forms of localized microdontia is that which affects the maxillary lateral incisors, and this condition that has been called the "peg lateral". Instead of exhibiting parallel or diverging mesial and distal surfaces the sides converge or taper together incisally forming a peg-shaped or cone-shaped crown. The root on such a tooth is frequently shorter than usual. It is clear that reduced or hypoplastic maxillary laterals are a variable expression of the gene for congenitally missing lateral incisor.

Relative generalized microdontia occurs when all teeth appear to be involved but actually the jaws are too large. The role of hereditary factors in producing such a condition is obvious. True generalized microdontia occurs when the size of the jaws is normal and all teeth are actually too small. This disorder is extremely rare. It has occasionally been reported as a result of pituitary dwarfism radiation and chemotherapeutic treatment during the developmental stage of the teeth.

A conservative management is advised for microdontia.
keeping in view the age and sex of the patient, clinical crown length, crown-root ratio etc. An interim esthetic restoration can be replaced by a permanent restoration such as a porcelain jacket crown at a later date.

REFERENCES


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