

Abnormally-shaped Supernumerary Maxillary Incisors

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Reports have shown that supernumerary teeth are found mainly in the maxillary incisor region and are associated with the central and lateral incisors.^{8,9,11} Most of the extra teeth (abnormal in shape, such as the conical shape mesiodens) associated with the upper central incisors are regarded as "supernumerary".^{2,11,13} The additional teeth closely resembling normal tooth shape and morphology and usually associated with the upper lateral incisors are often called "supplemental" teeth.^{2,5,12}

Several methods of classifying supernumerary teeth according to their form and shape have been suggested. Howard⁷ divided supernumerary incisors into four groups:

1. Mesiodens—small peg-shape or conical teeth.
2. Incisiform—resembling the normal incisor.
3. Invaginate or tuberculate—short and barrel shaped.
4. Odontomes—teeth with no regular shape and form.

Colyer¹ classified supernumerary teeth into two main classes: normal, resembling the normal incisors and abnormal, containing conical and tuberculated teeth.

Supernumerary incisors differ in their effects on the dentition. They may cause delayed eruption of the permanent teeth, displacement or rotation of adjacent teeth or, in a small percent-

age, may have no effect on the dentition.⁴ This paper will present a case with abnormally-shaped supernumerary upper central incisors.

CASE REPORT

The patient, a 13 years 10 months old girl, was referred for orthodontic consultation and treatment to the orthodontic department, Tel-Aviv University. Clinical examination revealed the presence of two abnormally-shaped supernumerary teeth fully erupted between the upper central incisors (Fig. 1). Lateral displacement of the central incisors and lingual displacement of the lateral incisors were the result of this deviation from the normal eruptive pattern of the dentition.

The two supernumerary teeth were extracted and studied morphologically and radiographically. They show rare abnormal shape, size and form and bear no resemblance to the morphology of the permanent incisors. The common characteristics of the two supernumerary teeth are the wide labiolingual diameter and the broad half-circle shaped incisal surfaces surrounding a rather deep fissure or crater (Fig. 2). Both teeth present two distinct fissures on their labial surfaces; however, the left supernumerary tooth has an additional peg-shaped tooth on its labial surface (Fig. 3). The radiographic examination reveals the presence of an extra crown fused to the main crown, both having one common root separated by a deep fissure (Fig. 4).

DISCUSSION

The literature regarding supernu-

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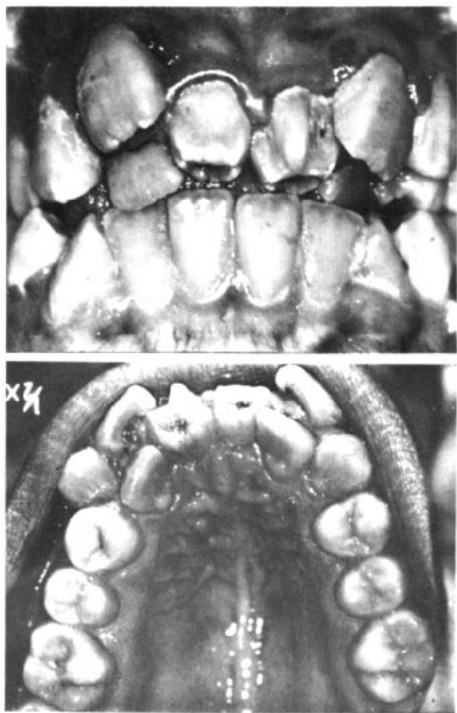


Fig. 1 Note the lateral displacement of the normal central incisors and the severe anterior crowding caused by the erupted supernumeraries.

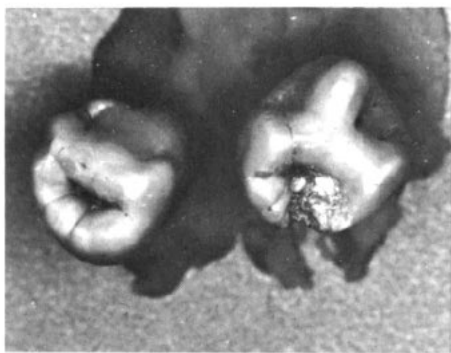


Fig. 2 Incisal view of both supernumerary teeth.

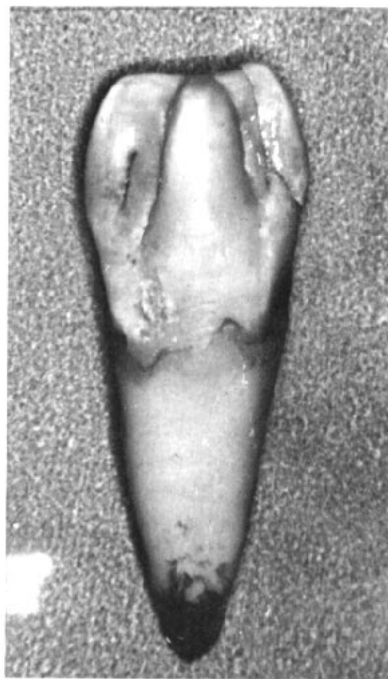


Fig. 3 Frontal view of the left extracted supernumerary tooth.

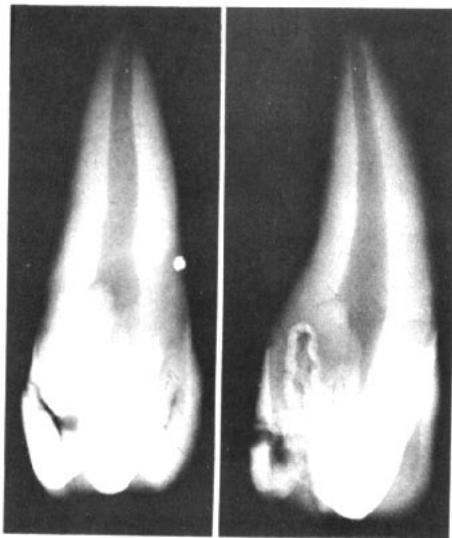


Fig. 4 Front and side view radiographs of the left supernumerary incisor.

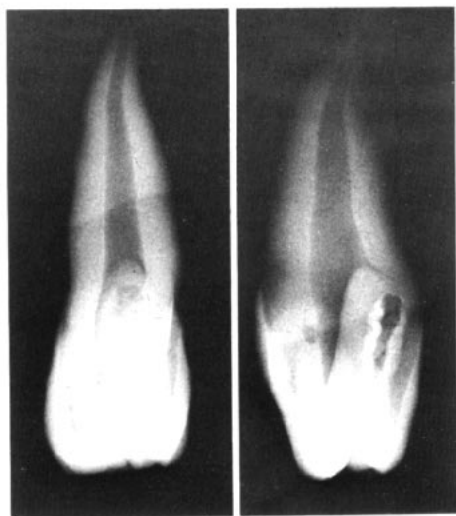


Fig. 5 Front and side view radiographs of the right supernumerary incisor.

merary teeth includes epidemiological studies as well as case reports on "normal" and "abnormal" shaped supernumerary teeth. There are, however, few reports on abnormally-shaped supernumerary incisors. An interesting collection of abnormally-shaped teeth removed from the region of the premaxilla was reported by Colyer.¹ No explanation was suggested regarding the origin and development of these malformed teeth. Fusions between a supernumerary tooth and a permanent central incisor were reported by Harris⁶ and Shapira.¹⁰ Fusion between two supernumerary teeth has not been reported to the best of our knowledge.

There are several theories regarding the origin of supernumerary teeth. It has been suggested that those supernumerary teeth of the same shape, size and degree of development as the adjacent normal teeth develop as an extra tooth germ arising directly from the dental lamina. They may present

an additional tooth in the second dentition. On the other hand, the origin of the tuberculated abnormally-shaped supernumerary tooth whose development starts much later than the normal tooth is apparently of the third dentition.³ A further possible explanation may be the dichotomy theory, where the tooth germ splits either to equal or unequal parts giving rise to a supplemental or conical type supernumerary tooth.¹²

The position of the supernumerary teeth in this case presentation, as well as their root formation, leads us to speculate that they developed from extra tooth germs in the dental lamina associated with the second dentition even though this shape is suggestive of third dentition teeth. An additional peg-shaped tooth seems to be fused to the left supernumerary incisor. Further, the occlusal fissures in both supernumerary incisors (Fig. 2) are very deep and seem to split their crowns as seen in the side view x-rays (Figs. 4,5). This may indicate that the right supernumerary tooth was formed from two additional teeth fused at their mesial and distal sides. The unusual morphology of the left supernumerary tooth may be a result of fusion between three extra teeth. Fusion probably took place during crown formation, prior to the onset of tooth development of the supernumerary teeth, explaining the formation of only one root.

SUMMARY

Two unusual supernumerary upper central incisors with rather rare abnormal shape and morphology are reported in a 13 years 10 months old girl.

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