

Tooth Fusion : A Case Report

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Abstract

Fusion refers to the union of two tooth germs which are usually separated and depending upon the stage of development of the teeth at the time of union it may be either complete or incomplete.

This is a rare case of fusion of permanent mandibular central & lateral incisors of both sides.

Key Words : Fusion, Mandibular incisors.

Introduction

The terminology of dental fusion and gemination are used to define two different morphological dental anomalies characterized by the formation of a clinical wide tooth.

The phenomenon of gemination arises when two teeth develop from one tooth bud and as a result, the patient has an extra tooth in contrast to fusion, when the patient would appear to be missing one tooth.

Fused teeth arise through union of two normally separated tooth germs and depending upon the stage of development of the tooth at the time of union it may be either complete or incomplete.

On some occasions two independent pulp chambers and root canals can be seen.

Case Report

A 35 year old male reported to the clinic

for bleeding gums on intra oral examination there was generalized calculus deposition with bleeding on probing. The mandibular central incisors of both sides was larger with increased mesiodistal width (Fig. 1)

The I.O.P. X-Ray were taken and it revealed only two permanent incisor with large pulp chamber and root canal (Fig. 2).

Discussion

The etiology of fusion is unknown. Some researchers, believe that physical pressure and force generated during growth causes contact between two tooth germs, viral infection and use of thalidomide during pregnancy is also, considered as possible etiology.

The anatomic irregularities occur more often in deciduous than in permanent dentition. Only a few cases of fusion. Involving molars and premolars teeth has been reported.^{1,2} A region case of bilateral fusion are less frequent than unilateral fusion.³

Turell and Zmever¹

Describe a case of fusion involving mandibular 3rd and 4th molar. This anomaly in anterior region causes an unpleasant aesthetic tooth shape due to irregular morphology.

These teeth also tend to be greatly predisposed to caries and periodontal disease and in some cases endodontic treatment is very complicated.^{4,6}

The main periodontal complication in fusion cases occurs due to the presence of fissures or grooves in the union between the teeth involved. Bacterial plaque accumulation in this area is quite high.

Furthermore, fusion may have an adverse effect on occlusion, causing deviation and sometime delaying eruption of other teeth. In this case bilateral fusion of mandibular lateral and central incisor leads to broad incisors.

Conclusion

The clinical problems are associated with fused teeth are esthetics, arch symmetry spacing and malocclusion. These problems require cosmetic and orthodontic considerations.

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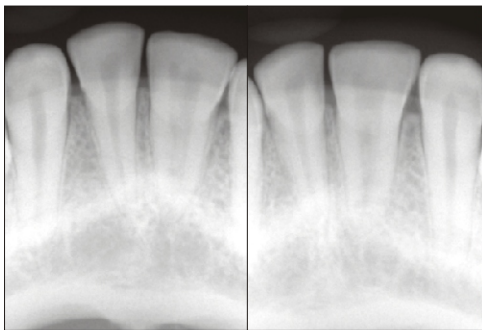


Fig. 1

Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

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