

# Bilateral Fusion of Primary Mandibular Incisors: A Rare Case Report

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A 32-month-old boy accompanied by his parents reported with chief complaint of decayed teeth. The patient did not have any systemic disorder and his medical history was noncontributory. There was no family history of dental anomaly and no consanguinity was reported in the parents. On examining the patient intraorally, bilateral presence of unusually large teeth in the mandibular incisor region was seen. Both side lateral and central incisor were fused to form large tooth [Table/Fig-1].

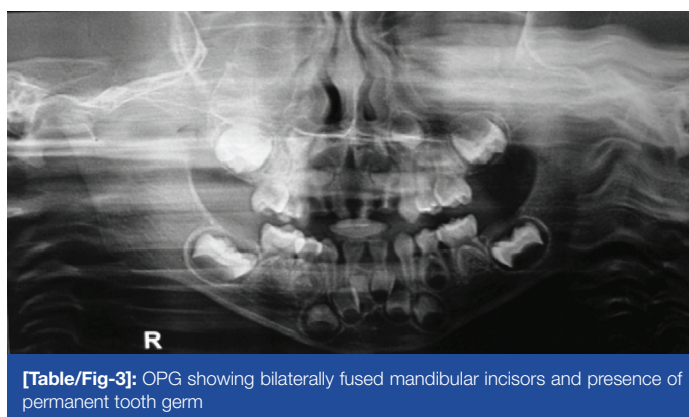
These bulbous teeth were not affected by dental caries and periodontal problems. Radiographic evaluation of the left and the right sides revealed two distinct roots and root canals and were evident of the fused 71,72 and 81,82 [Table/Fig-2]. The underlying permanent successor tooth were also evident in both the intraoral and periapical and panoramic radiographs [Table/Fig-3]. So, a diagnosis of bilaterally fused mandibular primary central and lateral incisors was made. Now patient is on follow-up.

The developmental anomaly of union of two deciduous or permanent teeth is called as fusion. There are certain problems associated with fusion namely aesthetic problems, space problems, occlusal disturbances and delayed eruption of permanent teeth. Therefore careful monitoring of the case is required. This case report highlights a rare case of bilateral fusion of primary mandibular incisors in a 32-month-old boy. In the primary dentition various anomalies of number and form may occur [1]. One of such anomaly is fusion which is identified as union of two distinct dental organs. In fusion the number of teeth in the dental arch is reduced. This anomaly is different from gemination because in gemination single tooth germ divides into two. The causes of fusion is still unknown but possible cause can be due to the pressure or physical forces, close contact between two developing teeth occurs [1]. Other contributing factors include genetic predisposition and racial differences. Fused teeth may also present in some syndromes like chondroectodermal dysplasia or achondroplasia. In primary teeth, the incidence of bilateral fusion is 0.01-0.04% [2]. In fused teeth, the clinical crown appears as a crown which is double the size of normal crown. On radiographic examination, fused teeth can show separate pulp chambers and root canals or a single common pulp chamber and root canal system. Fused teeth can predispose to caries due to presence of deep fissures and can also lead to periodontal, aesthetic and spacing problems [3].

Fusion occurs when some physical force or pressure brings contact of the two normally separated tooth germs. It occurs during developmental stage of the teeth. When the contact occurs before calcification stage, a single large tooth is produced. When the contact and union of the teeth occurs after the formation of the crown, the incomplete fusion at the root level is formed.



**[Table/Fig-1]:** Intraoral view of fused bilateral mandibular central and lateral incisors  
**[Table/Fig-2]:** IOPA showing bilateral fused mandibular central and lateral incisors



**[Table/Fig-3]:** OPG showing bilaterally fused mandibular incisors and presence of permanent tooth germ

Several problems occurred in permanent dentition follow fused primary teeth such as repeated double teeth, hypodontia (missing teeth), supernumerary teeth and peg shaped teeth [1]. Also, double primary teeth may cause delayed resorption of the root because of the big root mass, resulting in delayed or ectopic eruption of permanent teeth [4].

Fused primary teeth are highly correlated with the absence of permanent teeth and the prevalence depends on the combination of fused primary teeth [5].

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