

# Fused primary mandibular teeth: A case report

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## Abstract

*Fusion is defined as the dentinal union of two embryologically developing teeth. It is a rare developmental anomaly in primary dentition resulting in increased likelihood of anomalies of the succedaneous permanent teeth. The present article describes a case of fused primary canine and first molar in the mandibular region.*

**Key words:** Developmental anomaly, fusion, primary dentition.

## Introduction

Fusion is defined as a union between the dentin and enamel of two or more separate developing teeth<sup>1</sup>. Clinically, it may appear to be normal sized or large, depending upon the stage at which embryological union occurs during development. The fused teeth may have separate, partly fused or fully fused root canals when seen radiologically<sup>2</sup>. Fusion has an incidence of 0.5% and is more common in the primary dentition<sup>3</sup>. It is most often seen in mandibular primary incisors<sup>3,4</sup>. The present report describes a case in which fusion of mandibular primary canine and first molar was observed.

## Case Report

A eight-year-old boy reported to the Outpatient Department of Pedodontics and Preventive Dentistry, Faculty of Dental Sciences, Chatrapati Shahuji Maharaj Medical University, Lucknow with a chief complaint of missing teeth in the lower arch. Intraoral examination showed a mixed dentition with no caries or periodontal involvement. All four first permanent molars were fully erupted.

The mandibular arch revealed an asymmetry in the tooth number. There were five teeth on the left side and six teeth on the right side. The mandibular left permanent central and lateral incisors were present along with an enlarged bifid crown *i.e.* 73 and 74 [Fig. 1]. Radiological examination revealed that the enlarged bifid crown was due to fusion of the 73 and 74 tooth (mandibular left primary canine and the primary first molar). The affected tooth showed the fusion of crown and roots resulting in joined pulp canal through pulp chambers [Fig. 2].

## Discussion

Fusion is a dental anomaly of size which may lead to clinical problems such as unacceptable appearance or alignment of teeth, and periodontal conditions<sup>5</sup>.

Fusion should be clinically distinguished from gemination by counting of teeth in the arch. If there is a deficiency in the normal complement including the bifid crown, the condition is fusion.

It has been thought that some physical force or pressure produces contact of the developing teeth and their subsequent fusion. If this contact occurs early, at least before calcification begins, the two teeth may be completely united to form a single large tooth and if it occurs later, there may be union of the roots only<sup>6</sup>. Fusion occurs more frequently in females. Genetics appears to be a factor, when increased incidence is found<sup>7</sup>.

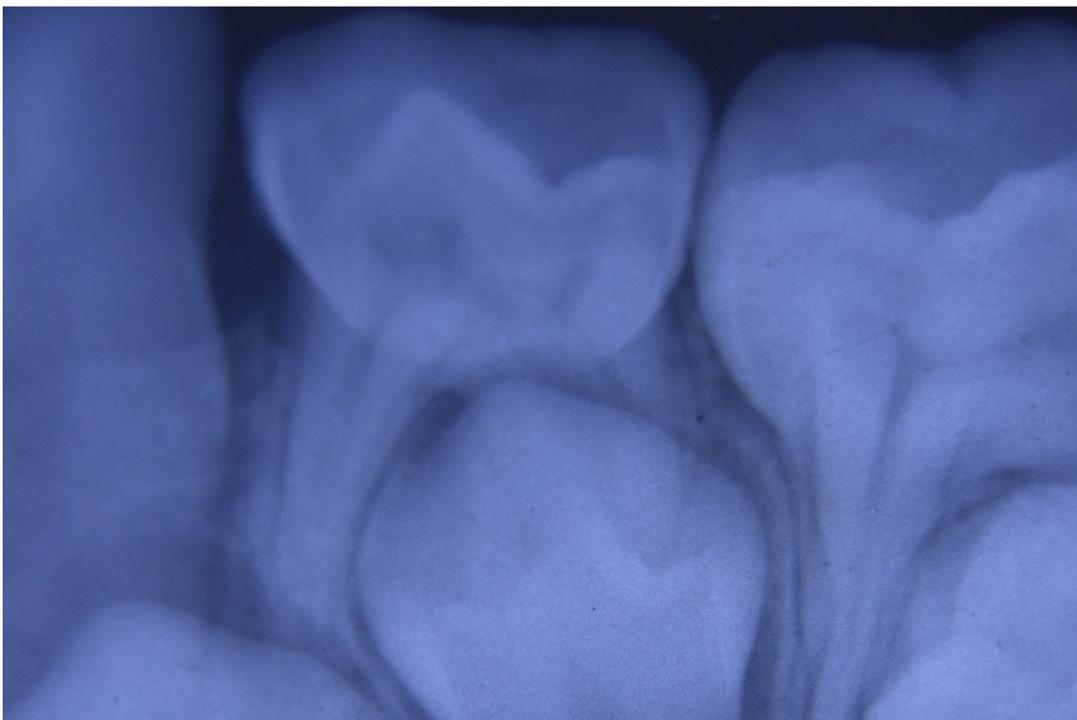
The dental professionals should be aware of the possibility of finding fused teeth on routine dental inspection and once diagnosed the patient should be informed of the potential hazards as regards plaque accumulation and varied root canal morphology<sup>8</sup> during endodontic practices.

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**Figure 1 :** Showing fused 73 and 74 tooth



**Figure 2 :** Radiograph of involved 73 and 74 tooth illustrating joined pulp canals through pulp chambers