

Grossly carious mandibular first molar having supplemental root managed exodontically: A rarity reported

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Abstract

The mandibular first molar tooth commonly has two well-defined roots. But, sometimes the appearance and number of roots show variations. The prevalence of supernumerary root associated with mandibular molar is less than 5% in Asian populations and the most common variant is the mandibular first molar with the presence of supernumerary roots distolingually.¹

The present article reports a case in which drashvinivadane@gmail.com supplemental root is present mesiolingually associated with mandibular first molar. Hence, this is the rarest entity. This case was reported in the department of Oral and Maxillofacial Surgery of M.A. Rangoonwala College of Dental Sciences and Research Centre, Pune and its extraction was performed.

Keywords: Supplemental root, Additional root, Mandibular first molar, Radix entomolaris, Extraction.

Case Report

A 48 years old male patient visited department of oral and maxillofacial surgery of our college with the chief complaint of pain in the lower left back teeth region of jaw since 10 days. The pain was throbbing in nature, constantly present and was restricted to that region only. On clinical examination, it is noted that there was grossly carious mandibular left first molar in the patients' jaw. Radiographic examination was advised and intra-oral periapical view revealed carious mandibular left first molar. Tooth was grossly carious and it had lost all its walls. Hence, it was diagnosed as "Chronic periodontitis with mandibular left first molar" and treatment plan advised was "extraction". The intra-oral periapical view radiograph revealed the presence of additional root with mandibular left first molar what literature supports as a very rare entity. Fig. 1 describes the radiographic findings. Extraction of mandibular left first molar was performed under left side inferior nerve block supplemented with lingual and long buccal nerve block. There was presence of three roots associated with this molar tooth as shown in Fig. 2. The presence of 3 roots associated with mandibular first molar is the very rare entity and found in less than 5% of Asian population.¹ And the most common variant is that in which additional root is present distolingually.¹ In this case supplemental root is present mesiolingually. Hence this article describes a rare case.



Fig. 1: IOPA revealing grossly carious three-rooted mandibular first molar



Fig. 2: Picture showing extracted 3 roots of mandibular first molar

Discussion

Proper knowledge of tooth morphology and number of roots is essential for every dentist and for anthropologic significance. Typically, the mandibular first molar has two roots. However, in some cases, the morphology and number of roots of the mandibular first molar tooth show variations. "Radix entomolaris" is the presence of supernumerary roots distolingually and this type is the major variant of mandibular first molar tooth with additional roots.^{1,10}

Some authors consider that the anatomical variant of radix entomolaris is a genetic trait and it is not a developmental anomaly.¹ The additional root with mandibular first molar is most commonly found distolingually present either in the form of short conical extension or a full-length root.^{1,2} In this reported case, the additional root is present mesiolingually which is very rarely present.

Carabelli had described this variant for the first time. Alexandersen and Carlsen had stated classification of "radix entomolaris" based on the location of its cervical part. This classification has described 4 types, i.e., "A", "B", "C" and "AC", which are as follows:¹⁵

1. Type "A": Distally located cervical part of the radix entomolaris with two normal root components.
2. Type "B": Distally located cervical part of the radix

- entomolaris with one normal distal root components.
3. Type "C": Mesially located cervical part.
 4. Type "AC": Central location of supplemental root between the distal and mesial roots.

The supplemental root associated with mandibular first molar tooth is noticed in about 3% Africans, 3.4 -4.2% of Caucasians whereas its prevalence is in less than 5% cases of Indians and higher than 5% in Mongolian traits.²

This article reports a case in which additional root is present mesiolingually associated with mandibular first molar. Hence, this is the rarest entity. This case was reported in the department of Oral and Maxillofacial Surgery of M.A. Rangoonwala College of Dental Sciences and Research Centre, Pune and its extraction was performed.

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