

Case Report

Surgical Management of Impacted Mandibular Second Premolar: A Short Case Report

Ashvini Kishor Vadane^{1*} and Janardan Bhagwat Garde²

¹Senior Lecturer, Department of Oral and Maxillofacial Surgery, M.A.Rangoonwala College of Dental Sciences and Research Centre, Pune

²Professor and Head of the department, Department of Oral and Maxillofacial Surgery, M.A.Rangoonwala College of Dental Sciences and Research Centre, Pune

*Correspondence to: Ashvini Kishor Vadane, Senior Lecturer, Department of Oral and Maxillofacial Surgery, M.A.Rangoonwala College of Dental Sciences and Research Centre, Pune; Tel: 7387935523; E-mail: drashvinivadane@gmail.com

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ABSTRACT

In some conditions, teeth are prevented from eruption due to any physical barrier in their path of eruption; those teeth are known as “*Impacted teeth*”. This article reports a case of mandibular impacted second premolar, which was successfully managed by the surgical extraction in our institute.

Keywords: *Impaction; Impacted Premolar; Mandibular Premolar; Orthodontic Treatment; Surgical extraction.*

CASE REPORT

A 13 years old male patient visited our institute with the chief complaint of pain in the mandibular left posterior teeth region of the jaw for 2 months. On clinical examination, mandibular left second premolar was found missing. Hence, a provisional diagnosis of impacted mandibular left second premolar was made. Radiographic examination was advised to the patient. Patient's orthopantomogram revealed the presence of the impacted mandibular left second premolar as shown in Figure 1.

Figure 1. Orthopantomogram showing impacted mandibular left second premolar.



The patient was advised to undergo the surgical extraction of the impacted tooth under local anesthesia. Preoperative blood inves-

tigations were done and all were within normal limits. Patient and his parents were explained about the procedure. Patient's and his parent's consent was obtained before the procedure. All aseptic measures were maintained. Left side inferior alveolar nerve block was administered supplemented with lingual nerve block. The anterior releasing incision was taken the distal side of canine and crevicular incision was taken from left mandibular 1st premolar to the left mandibular 1st molar. A mucoperiosteal flap was elevated with the periosteal elevator and impacted the second premolar was exposed as shown in Figure 2 and was extracted surgically. Surgical site closure was done with mersilk suture and the patient was recalled after 8 days. There were no postoperative complications. Suture removal was performed on 8th day, as healing was satisfactory.

Figure 2. Surgical exposure of impacted left side second premolar.



Figure 3. Postoperative picture.



DISCUSSION

Mandibular 2nd premolar is the second most frequently impacted tooth in the oral cavity.¹ Approximately 24% of all impactions is contributed by mandibular 2nd premolars.²⁻⁵ As compared to maxillary premolars, mandibular premolars are most commonly impacted.^{6,7} The prevalence for impaction is 0.2% to 0.3% for mandibular premolars, whereas it is 0.1 percent to 0.3 percent in the case of maxillary premolars. The presence of supernumerary teeth, obstacles to the eruption and the presence of odontomas are the causes of premolar impaction. Developmental variability is higher in case of the mandibular bicuspid [2nd premolars] due to distal inclination of the developing tooth and agenesis.⁸⁻¹⁰

CONCLUSION

Different treatment modalities have been proposed and advocated for the management of impacted mandibular second premolars like observation, relocation, surgical extraction, conservative management by exposing impacted premolar's crown and orthodontic treatment.^{11,12}

CONFLICTS OF INTEREST

Authors declare that there is no conflict of interest in this study.

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