A UNUSUAL CASE REPORT ON DEXTROPOSITION OF IMPACTED PREMOLAR IN MANDIBLE

*Jitendra Acharya¹, Rakesh Garg¹, Nitin Soni¹ and Ashwani Kumar Jadon²
¹Department of Dentistry, S. P. Medical College and PBM Hospital, Bikaner, Rajasthan, India
²Department of Orthodontics and Dentofacial Orthopaedics, Maharana Pratap College of Dentistry and Research Center, Gwalior, India

*Author for Correspondence

ABSTRACT
A rare case of dextroposition of impacted premolar in mandible. Some etiological factor may be responsible for change in position of premolar such as systemic condition (Nutrition and endocrine disorders), trauma, abnormal location of initiation of tooth buds and follicular tooth sac inflammation. The prevalence of impacted premolars may vary according to age, in adults has been reported to be 0.5%. This case report describe impacted premolar in dextroposition in mandible.

Key Words: Dextroposition, Impacted and Mandible

INTRODUCTION
Impacted teeth are those which are prevented from eruption by some physical barrier in the eruption path (Alling & Catone, 1993). Lack of space due to crowding of the dental arches or premature loss of primary teeth with subsequent partial closure of this region is a common factor of partially or completely impacted teeth. Some genetic or environmental factors are included in the multifunctional nature of tooth eruption, which may be distributed in any stage of tooth development (Andreasen, 1997).

Impacted tooth defined as embedded in the alveolus so that is eruption is prevented or the tooth is locked in position by bone or adjacent tooth/teeth¹. Most common impacted tooth is third permanent molar after that maxillary canines and then mandibular second premolar. Impacted premolar may be due to local factors such as mesial drift of teeth arising from premature loss of primary molars, ectopic positioning of the developing premolar tooth buds, or pathology such as inflammatory or dentigerous cyst. They also may be associated with over-retained or infra-occlusal ankylosed primary molars or with syndromes such as cleftcranial dysostosis (Andreasen, 1997).

Another cause of impaction the mandibular premolars erupt after the mandibular first molar and mandibular canine. Thus the room of eruption is inadequate, one of premolars remain unerupted and become impacted (Andreasen, 1997). The prevalence of impacted premolars may vary according to age, in adults has been reported to be 0.5% this range being 0.2 to 0.3% for mandibular premolar¹. This case report describe impacted premolar in dextroposition in mandible.

CASE REPORT
A 20 year old lady reported to the department of dentistry SPMC Bikaner, Rajasthan with complain of pus discharge from left submandibular region since last 4 months. On clinical examination right mandibular premolar was missing (Fig. 1). On orthopantomogram reveals impacted mandibular right second premolar on left canine region at the lower border of mandible, sinus tract was seen extending from right mandibular second premolar on the left canine region below the left lateral incisor and canine (Fig. 2). Based on the clinical examination and the radiological finding surgical extraction of premolar and curettage of sinus tract was planned under GA.

Figure 1: Intraoral view (Missing right lower premolar)
Routine blood and urine investigation were done, after cardiopulmonary assessment and preanaesthetic checkup, patient was taken under GA. Submandibular incision was given from left premolar area to right canine region (Fig. 3). Layer-wise dissection was done. Sinus opening was seen, thick bone was removed from this area premolar was located and thorough curettage of sinus tract was done. Layer wise closing done. Granulation tissue was sent for histo-pathological examination.

**DISCUSSION**

This is a rare case of dextroposition of impacted premolar. Some of etiological factors that may result in dextroposition of premolar:

- Systemic condition such as nutritional disorders and endocrinal disorders.
- Previous trauma/stimulation to the affected site during tooth growth.
- Abnormal location of the tooth bud during initiation.
- Follicular tooth sac inflammation

The patient was well built, well-nourished and had no history of any trauma to the affected side during tooth growth. According to Andreasen (1997), the position of tooth bud might have been abnormal in the initial developmental stage of the tooth. It may be possible that the tooth had been impacted transversely and was further pushed by some extreme forces (Oikarinen & Julku, 1974; Peterson, 2003 and Collell, 2000).

Impacted premolars are not extensive despite the fact that mandibular second premolars alone account for approx. 24% of all dental impactions. Various treatment methods have been including observation, intervention, relocation and extraction depending on the tooth position, depth of the impacted tooth, relationship with adjacent teeth and orthodontic treatment (Collell, 2000 and Ten Cate, 1994).

Stafne and Gibilisco (1975) were noted that migration of unerupted teeth was most often seen in premolars, then canines and third molars. Although the exact mechanism of migration of the tooth is not understood, it appears that the direction of movement of the crown and the least resistance through the medullary spaces of the jaw bone. The normally eruption occurs after the formation of the crown of the tooth and is guided by the gubernacular cord...
towards the oral cavity; any local or systemic abnormalities which interrupts the continuity of the cord may alter the path of tooth eruption (Cohill, 1974 and Sulton, 1968).

REFERENCES