

CASE REPORT

Fully Erupted Ectopic Mandibular Canine: A Rare Case Report

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ABSTRACT:

Ectopic eruption of mandibular canine is a rare condition described in dental literature. A rare case of mesial eruption of right mandibular canine between lateral and central incisors of the ipsilateral side is presented. Such cases should be under routine evaluation.

Key words: Ectopic canine, Transmigrated Canine, Rare Case, Incidental Finding.

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INTRODUCTION

The tooth most frequently migrated in the dental arch is the maxillary canine, but migration of the mandibular canine towards the midline between central and lateral incisor is rare.^{1,2} The migrated tooth rarely erupts into the arch.³ Migration of mandibular canine within the jaw apparently commences in the early mixed dentition state (6 to 8 years) and usually the greatest amount of tooth movement occurs before root development is complete. 4-6 The migrating tooth moves in the direction in which the crown is pointed⁷ and the crown maintains the lead during the migration and therefore in mandibular canines, the pathway is mesial⁸. Table 1 gives the list of cases in which the ectopic canines had erupted in the oral cavity. A rare case of mesial eruption of right mandibular canine between lateral and central incisors of the ipsilateral side is described.

CASE REPORT

A 34 years old male patient reported to the Dental OPD of the Yamuna Institute of Dental Sciences and Research, Yamunanagar, Haryana, India for regular dental checkup. History was non contributory. On extraoral examination no significant finding was observed. On intraoral examination, restoration was found with respect to 48 and PFM crown with respect to 16. Secondary dental caries were found with respect to 48 with no tenderness on

percussion. Localized spacing present with respect to the maxillary and mandibular anteriors with molar's in Angle's Class I relationship. Right mandibular canine was found to be erupted ectopically between lateral and central incisors. Patient was diagnosed as Angle's Class 1 type 2 malocclusion.



Clinical Picture of the Ectopic Canine

Patient was advised for replacement of the restoration and fixe orthodontic treatment.

DISCUSSION

In a very true sense transmigration is not a pathological entity.^{1,9} However, it might be associated with other pathologies like cysts and odontomes.² It has been

observed that the left side is more involved than the right and women seem to have this condition more frequently than males. It is not possible to offer any reason for this occurrence. According to Javid an impacted canine that has crossed the midline more than half of its length should be considered as transmigrated.¹⁰ It is worthy to note that in the absence of a permanent mandibular canine under the deciduous canine, the resorptive process of the root of the deciduous canine is rather slow.

It is difficult to give definite etiology to such an occurrence.¹¹ Abnormal displacement of the tooth bud in the embryonic life is a commonly accepted explanation. Heredity has been suggested as a causative factor. It has been suggested that proclination of lower anteriors, increased axial inclination of the unerupted canine and an enlarged symphyseal cross section area of the chin play an important part in the process of transmigration.¹² The transmigrated canine usually remains impacted, but occasionally it erupts labially, lingually or in mirror image fashion with the contralateral side canine (Table 1). Most of the time, there are no symptoms and such teeth are discovered at time of routine radiographic examination before orthodontic treatment.

It is suggested that on routine evaluation of orthopantomograms when the dentist finds an excessive mesial inclination of the unerupted mandibular canine at 8-9 years of age associated with the above mentioned factors, it is best to keep such a patient under routine evaluation. Sometimes interceptive processes like extraction of deciduous canines or surgical exposure of the permanent canine may prevent its impaction.¹² In cases when such a canine is impacted it is better to go for surgical extraction specially when it is an orthodontic extraction case.¹³ If the tip of the crown has migrated past the apex of the adjacent lateral incisor, it might be mechanically impossible to bring the aberrant canine into its normal place.¹⁴ In a non extraction orthodontic case a surgical repositioning should be attempted before surgically extracting it.¹⁵ The transmigrated canine maintains its nerve supply from the original site so it is suggested that it is necessary to anaesthetize the side to which the canine belongs when extraction is done under local anaesthesia.^{9,16}

Ectopic eruption of mandibular canine is a rare and elusive phenomenon described in dental literature. This phenomenon occurs more frequently in the left canine than the right.

REFERENCES

1. Fiedler L.D., Alling C.C.: Malpositioned mandibular right canine-report of a case. *J Oral Surg* 1968; 26: 405 - 407.
2. Shapira Y., Mischler W., Kuftinec M.M.: The displaced mandibular canine. *J Dent Child* 1982; 49: 362 - 364.
3. Barnett D.P.: An unusual transposition. *Br J Orthod* 1977; 4:149.
4. Stafen E.C.: *Oral roentgenographic diagnosis* 2nd ED London: WB Saunders 1963 PP: 57.
5. Dhooria H.S., Sathawane R.S., Mody R.N., Sakharde S.B.: Transmigration of mandibular canines. *J Indian Dent Assoc* 1986; 58:348-351.

6. Platzer K.M.: Mandibular incisor canine transposition. *J Am Dent Assoc* 1968; 76: 778 - 84.
7. Sutton PR.: Migrating non erupted mandibular premolars. A case of migration in coronoid process. *Oral Surg* 1968; 25: 87.
8. Greenberg S.N., Orlian A.I.: Ectopic movement of an unerupted mandibular canine. *J Am Dent Assoc* 1976; 93: 125-8.
9. Joshi M.R., Shetye S.B.: Transmigration of mandibular canines: a review of literature and report of two cases. *Quint Int* 1994; 25: 291-294.
10. Javed B.: Transmigration of impacted mandibular cuspids. *Int J Oral Surg* 1985; 14: 547 - 549.
11. Nodine A.M.: Aberrant teeth, their history, causes and treatment. *Dent Items of Interest* 1943; 65: 440 - 451.
12. Vichi M., Franchi L, Bassarelli V.: Contributo clinico sulla transmigrazione del canino inferiore permanente. *Minerva Stomatol* 1991; 40: 579 - 589.
13. Joshi M. R.: Transmigrant mandibular canines - A record of 28 cases and a retrospective review of literature. *Angle Orthod* 2001; 71 (1): 12-22.
14. Wertz R.A.: Transmigrated mandibular canines. *Am J Orthod Dentofacial Orthop.* 1994; 106: 419 - 427.
15. Howard R. D.: The anomalous mandibular canine. *Br J Orthod* 1976; 3: 117- 119.
16. Caldwell J.B.: Neurological anomaly associated with extreme malposition of a mandibular canine. *Oral Surg Oral Med Oral Pathol* 1955; 8: 484-487.
17. Bruszt P.: Neurological anomaly associated with extreme malposition of a mandibular canine. *Oral Surg Oral Med Oral Pathol* 1958; 11:89-90.
18. Kaufman A.Y., Buchner A.: Transmigration of mandibular canine. *Oral Surg Oral Med Oral Pathol* 1968; 26: 405-406.
19. Pratt RJ. Migration of canine across the mandibular midline. *Br Dent J.* 1969; 126: 463 - 464.
20. Abbot D.M., Svirasky J.A., Yarborough B.H.: Malposition of the permanent mandibular canine. *Oral Surg Oral Med Oral Pathol* 1980; 49: 97
21. Sofat J.R.: Maleruption of mandibular canine. *J Indian Dent Assoc* 1983; 55: 111 - 112.
22. Gadalla G.H.: Mandibular incisor and canine ectopia - A case of two teeth erupted in the chin. *Br Dent J* 1987; 163: 236