# BILATERAL MANDIBULAR CANINE IMPACTION – A RARE CASE REPORT

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**Mandibular canine impaction is considered as a rare condition. It is an even rarer phenomenon when both the mandibular canines are impacted. Bilateral mandibular canine with left maxillary canine impaction with incidence causes and management is discussed in a 13 year old boy.**

**Key words: mandible, canine, impaction, incidence, causes, management**

Dental impaction is defined as a condition in which a tooth is prevented from eruption by some physical barrier in the eruption path.[1] Although impaction of maxillary canine is common, impaction of mandibular canine is rare. Bilateral mandibular canine impaction is even rarer. Canines play an important role from esthetics and functional point of view. Timely diagnosis and proper intervention can help to bring the canines in to the arch in their proper positions.

Cases of mandibular canine impaction are rare and there are limited number of studies regarding its incidence. Grover and Lorton[2] (1985) found 11 impacted mandibular canines in 5000 cases. Aydin et al[3] (2004) in their study of 4500 panoromic radiographs found the incidence of mandibular impaction to be 0.44%. The gender ratio was found to be M:F - 1:1.22.

Yavuz et al[4] (2007) in their study on 65 patients with mandibular canine impaction found that only 6 patients had bilateral mandibular canine impaction. The same study also showed that vertical impaction (40.8%) was most common, followed by mesioangular (32.4%), horizontal (18.3%) and distoangular (8.5%) Chu et al[5] (2003) reported five mandibular impacted canine teeth in 7486 patients.

## CASE REPORT

A 13 yrs old boy reported in orthodontic department complaining of irregular teeth. The patient was found to be medically fit. There was no history of trauma or abnormal habits. Extraoral examination showed that the boy had class I skeletal relationship. Intraoral examination revealed that the patient had bilateral class I molar relationship and was in the late mixed dentition phase with upper and lower anterior crowding .Panoramic radiograph revealed bilaterally impacted mesially inclined mandibular canines. In addition to this, the upper left permanent canine was also impacted (fig 1,2,3,4,5,6).

## DISCUSSION

The various causes of mandibular canine impaction include insufficient dental arch length, blockage by a supernumerary tooth, or a complex composite odontome, or by several small denticles belonging compound composite odontome, lack of coordination between the maturing permanent canine and deciduous canine[6,7].

In most of the cases, the impacted mandibular canines are asymptomatic. They may be found buccally ectopic or in the general line of the arch or on lingual side of alveolar process as a palpable hard swelling under the lingual mucosa [7]. It is possible that routine full mouth intraoral dental radiograph fail to reveal impacted canines.[8,9] Panoramic radiographs are useful in such cases.

In rare cases, an impacted mandibular canine migrates to the other side of mandible, crossing the mandibular midline. This abnormal movement of a tooth has been termed transmigration or movement of unerrupted tooth across the midline without the influence of any pathological entity.[9]

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*Fig.1. Intraoral photograph showing frontal view.*



*Fig.2. Intraoral photograph showing right buccal view.*



*Fig. 3. Intraoral photograph showing left buccal view*

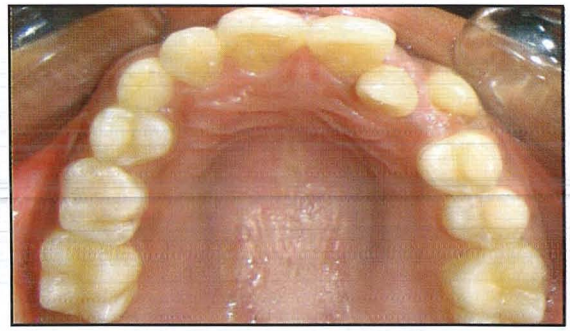


*Fig.4. Intraoral photograph showing occlusal view of the maxillary arch*

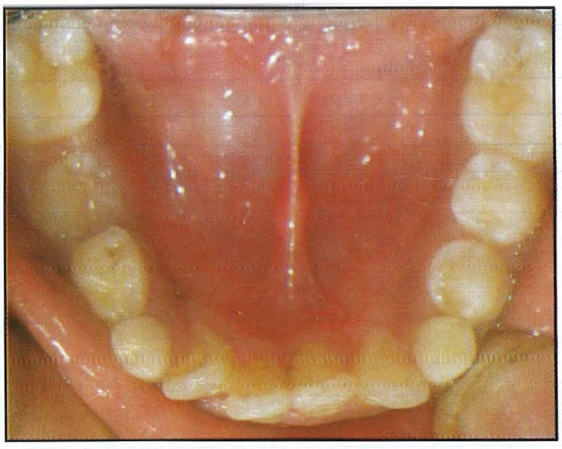


*Fig.5. Intraoral photograph showing occlusal view of the mandibular arch*

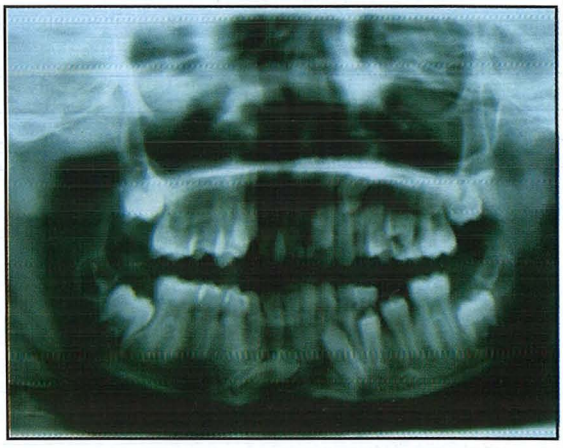


*Fig.6. O.P.G sowing impacted 23, 33,43*

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1. I.F. Gardner et al Pg 231, Antiseptics & Disinfectants
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The various treatment options for impacted mandibular canine include observation, orthodontic management, surgical extraction, transplantation.[10]

Some authors believe that asymptomatic impacted teeth can be kept under observation after removal of overlying obstruction but panoramic radiographs should be taken periodically to observe change in the path of impacted canine.

Orthodontic management includes the following steps –

1. surgical exposure, 2.attachment to the impacted tooth, 3.orthodontic mechanics to bring the tooth in to the arch.

The existence of infection, cyst or tumour requires surgical extraction of impacted canine. Contraindications for removal of impacted tooth include extremes of age, compromised medical status, probable excessive damage to adjacent structures. Transplantation of impacted canine is also an option however the long-term prognosis is unstable.

## CONCLUSION

A rare case of bilateral mandibular canine impaction in a 13 year old boy has been described. In addition to this the incidence ,causes and management of bilateral mandibular canine has also been dicussed.

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