

# CASE REPORT

## ECTOPIC THIRD MOLAR IN THE SUB CONDYLAR REGION- A CASE REPORT

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**ABSTRACT:**

Ectopic teeth often impact in unusual positions or at a distance from their normal anatomic location. Ectopic mandibular third molar is relatively rare with heterotopic positions reported in the sub-condylar area. Ectopic third molar may be asymptomatic initially with clinical manifestations, later on as adjacent structures are affected. The surgical approach must be carefully planned for the aim of choosing the more conservative technique that produces the minimum trauma to patients. We present a case of symptomatic ectopic third molar in the sub condylar region and its removal through intraoral approach.

**Key Words:** Ectopic third molar, Sub condylar region.

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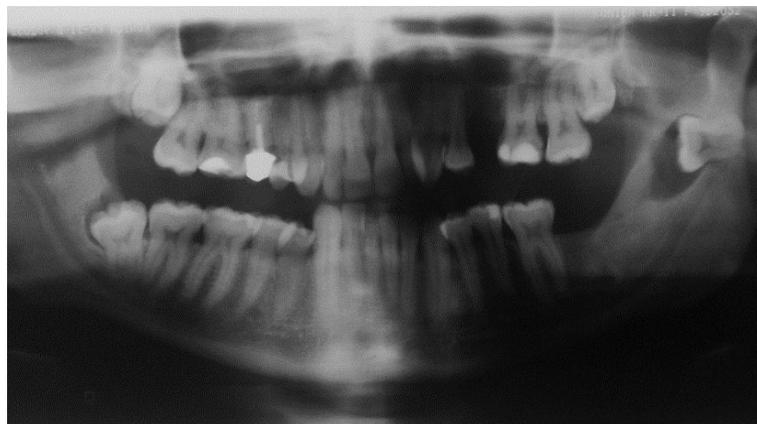
### INTRODUCTION

Ectopic teeth refer to those that are found in unusual positions or have been displaced from their normal position. Ectopic mandibular third molar is relatively rare [1] with heterotopic positions reported in the sub-condylar area[2], ascending ramus of mandible[3] and in the coronoid region[4].

Owing to the rarity of this condition, the optimal management is still unclear. We present a case of symptomatic ectopic third molar in the sub condylar region and its removal through intraoral approach.

### CASE REPORT

A 36 year old Caucasian male patient presented with a complaint of pain and purulent discharge from the left side of the lower jaw over the retromolar region. Clinical examination revealed no gross facial asymmetry or lymphadenopathy. Neurosensory examination was unremarkable. Intraoral examination revealed missing tooth number 38 with an intraoral pus discharging sinus over the left retromolar region. Panoramic radiograph, (figure 1) showed tooth number 38 placed ectopically in the left sub condylar region associated with radiolucency (figure 2).



**Figure 1:** Panoramic radiograph showing the presence of an ectopic third placed third molar in the left subcondylar region



**Figure 2:** Axial and Coronal section of CT scan showing ectopic third molar with associated cyst

CT scan confirmed the findings of an ectopic tooth no 38 in a horizontal position in the left subcondylar region. The impacted tooth was associated with radiolucency enveloping the crown of the tooth.(2 X 1.5 cm)

A working diagnosis of infected dentigerous cyst associated with impacted 38 was made and it was decided to remove the ectopic third molar along with associated pathology surgically through intraoral approach under general anaesthesia.

Under general anaesthesia with naso-tracheal intubation, intraoral access was obtained through an incision on the mandibular ramus along the external oblique ridge down to tooth number 37. Sub periosteal stripping was done to expose mainly the antero-lateral aspect of the ramus corresponding to the area of tooth impaction.

A bony swelling with defect was found on the lateral aspect of the left ramus which was carefully enlarged with surgical burs and bone rongeurs. The bone removal was done judiciously to prevent any iatrogenic fracture of the mandible. The tooth was carefully luxated with dental elevators and gently teased out through the bony window. The associated cyst was enucleated and sent for histopathology. The bony defect was curetted and then irrigated with copious saline and haemostasis achieved by local pressure. The wound was closed primarily with 4-0 vicryl.

The post-operative recovery was uneventful and patient was discharged the following day. He was instructed to use soft diet and avoid all forms of contact sports. On follow up visit after a week, patient was asymptomatic and showed no signs of paresthesia of the mandibular nerve. The patient was a visitor to the country and lost to further follow up.

The histopathological findings were consistent with chronically inflamed dentigerous cyst

## DISCUSSION

All ectopic third molar do not require removal. However, surgical intervention should be considered when the tooth becomes symptomatic. Bruce et[5] stated that association with odontogenic cyst is an important indication for removal of both the tooth and the cyst. Lambade et al[6] proposed surgical intervention if tooth is associated with:- pathological lesion like cyst , tumour, infection, interfering with jaw movements , is cause of ear infection or a cause of recurrent episodes of pain and swelling over the pre and post auricular region and also prophylactically to prevent fracture. Wassoufet al [7] advocated annual follow up with panographs in case of symptom free ectopic third molars .

The exact aetiology of ectopic teeth is not always clear[1]. However, trauma, aberrant eruption, ectopic tooth germs have been proposed as the possible causes[2]. In addition to this, displacement by an odontogenic cyst or tumour has been attributed as the cause of ectopic of third molar[3,8,9] . Most of the cases reported in the literature review by Wang et al[1] and Iglesias et al[10], as well as our case were associated with lesion histopathologically diagnosed as dentigerous cyst[1,10]. Hence the theory of odontogenic cyst in the pathogenesis of ectopic third molar seems to be the most relevant one[8,10,11] .

The most frequent site for ectopic third molar in the mandible was condylar and subcondylar[2] region which was consistent with our case .

Management of such cases needs careful planning. The most critical consideration is the removal of the tooth and the associated lesion from the condylar neck, as the remaining bone is weak and susceptible to fracture. Several extraoral[1] surgical approaches such as submandibular[3], retromandibular[12], preauricular[2,13], endaural[3] and transmasseteric antero-parotid (TMAP)[14] have been described .In addition to this, endoscopy[15,16] has been used to magnify the surgical field in conjunction with an intraoral[7,17,18] approach. Wassouf et al[7] and Mediciet al[9] employed coronoidectomy along with the intraoral approach for better exposure.

In our patient, we have preferred an intraoral approach as it is less traumatic, obviates the chances of facial nerve injury or a facial scar .The surgical access was adequate for removal of the impacted tooth and the associated cyst. There was no dysfunction of the mandibular nerve or its

branches as our surgical approach was mainly confined to the antero-lateral part of the ascending ramus .

## CONCLUSION

The surgical approach for removal of ectopic mandibular third molars should be carefully planned to prevent iatrogenic fracture of the mandible condyle and a contingency plan should be in place in case of such an event .

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