Aberrant/Ectopic Eruption of Third Molar in Ramus-Condylar Junction

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ABSTRACT
The presence of a third molar is very common, but its ectopic position is rare. They are placed mostly in an unusual position distant from their anatomical site. This article presents a case of the ectopic location of the third molar in the ramus-condylar junction. The description of the position of the tooth, management of the pathology using an open surgical procedure, and removal of the molar along with the preservation of anatomy and function are detailed in this case report.

KEYWORDS: aberrant/ectopic molar, ramal-condylar junction

I. INTRODUCTION
Aberrant or Ectopic eruptions of the tooth are often found to be in unusual positions, mainly indistinct to the normal anatomical position. Reported sites include the maxillary sinus, palate, mandibular condyle, coronoid process, orbit, nasolacvity, or through the skin. Ectopic teeth may be supernumerary, deciduous, or permanent. Impaction of mandibular third molars being the most common condition has a higher frequency of about 20%-30% to have an ectopic eruption.[10,16]

The heterotrophic position reported in the mandible is the ramus, condylar area, in the ascending ramus of the mandible, in the coronoid process, and even in pterygomandibular raphe. The most frequent location of ectopic molars was in the condyloid followed by ramus, angular, and thecromandiboid and least on the lower edge of the mandibular corpus.[2,14] This can be either typically symptomatic or asymptomatic accidental findings in the routine clinical and radiographic investigations. Mostly the impacted tooth had an upward crown position of the ectopic molar whereas the others had a downward inclination or even an inverted crown position of the ectopic molar.[11,16] This paper reports a case of infiltration of anectopic third molar on the left ramus-condylar junction.

II. CASE REPORT
A 60-year-old male reported at Chakraborty hospital Andamans, with a complaint of difficulty in mouth opening of 1 month. The patient was further referred to a higher centre Meenakshi Ammal Dental College And Hospital, Chennai for further management and treatment. There was the presence of an evident extraoral sinus opening with discharge on the left cheek region. Radiologic examination revealed the lower left third molar located on the junction of the left ascending ramus and neck of the condyle. (Figure 1). The tooth had been sitting with the crown facing towards the sigmoid notch and the apex facing upward toward the neck of the condyle. A magnetic resonance imaging (MRI) scan exposed the relationship of the ectopic tooth to the anatomic structure. An ill-defined marrow edema was observed in the ramus and thecondyle of the mandible on the left side. It was positioned upward and outward to the close to the external cortical bone showing erosion of the ramus of the mandible. The minor collection was also observed on the left masseter muscle measuring 10 x 9 mm. The edema was also observed in the left masseter and parotid gland indicating soft tissue cellulitis. A retromandibular approach is also known as Hinds/Post Ramal approach was used for the access of the ectopic tooth. The tooth with the surrounding infection was addressed and removed in toto with the complete preservation of the nerve and parotid gland. There was sufficient bony support hence no reconstruction was done and left for healing. The contralateral side of the impacted third molar that was placed in a horizontal position was also removed as a preventive measure. Postoperative recovery was uneventful with complete resolution of the entire swelling. After a...
6month postoperative review revealed no recurrence or further discharge from the skin lesion. Adequate mouth opening was also achieved after aggressive sessions of physiotherapy.

III. DISCUSSION

Impacted mandibular third molars are categorized according to the anterior-posterior space between the second molar and the mandibular ramus, its superior-inferior position, its medial-lateral in the body of the mandible, and the position of its long axis. [2,4,9]

The exact etiology and incidence of ectopic remain unknown. [4,7] It has been suggested that an aberrant eruption pattern results when the tooth has been displaced by a lesion, usually an odontogenic cyst. [3,10,11] In most cases, an OPG together with clinical examination is usually sufficient for the diagnosis of an ectopic third molar. However, MRI /CT scans are sometimes required to determine the tooth and associated lesions in a more precise anatomical position and its relation to adjacent vital structures. Indications for treatment of ectopic third molars in the condylar region are to prevent recurrent infection if there is an associated pathology, such as a cyst that cannot be safely observed, or there is a significant risk of a pathological fracture. The associated infection and decreased mouth opening are the main indications in this case. There are various other surgical approaches intraoral, extraoral – preauricular, submandibular including transmasseteric approaches for excising in the condylar - Ramus region. [1,6,8] However, Antromandibular approach, providing adequate exposure towards the tooth and soft tissue lesion was a better choice for this case. [3,13,14] This also helps in providing minimal damage to the facial nerve and other vital structures. In certain situations, endoscopic removal is possible, however, it was not indicated in this particular case because of the difficulty that would be encountered in sectioning and removing the tooth and ensuring complete removal. [3,12]

IV. CONCLUSION

Ectopic molars in the ascending ramus and condylar junctions are very rare. [15] They are mostly found because of presenting clinical symptoms therefore regular follow ups and radiographic evaluation of asymptomatic aberrant molars are highly required to prevent major complications and surgical procedures.

Presurgical

Orthopantomograph
Magnetic Resonance Imaging

Surgical pictures
DECLARATIONS
On behalf of all Co-Authors, I shall bear full responsibility for the submission. I confirm that all authors listed on the title page have contributed significantly to the work, have read the manuscript, attest to the validity and legitimacy of the data and its interpretation, and agree to its submission.
Ethics Approval and consent to participate - received from the patient for case report
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REFERENCES AND BIBLIOGRAPHY


