International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 420-424 www.ijdmsrjournal.com ISSN: 2582-6018

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

Dr Pratiksha Malhotra, Dr. R.S. Neelakandan, Dr P.Manodh
BDS, MDS(OMFS), FAM, Department Of Dentistry, ANIIMS (G.B.Pant), Portblair , Andaman And Nicobar Islands, India
M.D.S(OMFS) ,IBOMS, IFHNOS (US) Professor & Head, (co-author)
M.D.S(OMFS), Professor(co-author)
Department Of Oral & Maxillofacial Surgery, Meenakshi Ammal Dental College And Hospital, Chennai, India

Submitted: 01-08-2022 Accepted: 07-08-2022

ABSTRACT
The presence of a third molar is very common, but its ectopic position is rare. They areplaced mostly in an unusual position distant from their anatomic 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 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 oftenfound to be in unusual positions, mainly indistance to the normal anatomic position.Reported sites include the maxillary sinus, palate,mandibular condyle, coronoid process, orbit, nasalcavity, or through the skin. Ectopic teeth may besupernumerary, deciduous, or permanent.Impaction of mandibular third molars being themost common condition has a higher frequencyof about 20%-30% to have an ectopic eruption.[10,16]

The heterotrophic position reported in the mandibleis ramus, condylar area, in the ascending ramusof the mandible, in the coronoid process, and evenin pterygomandibular raphe. The mostfrequent location of ectopic molars was in the condyle followed by ramus, angulus, and thecoronoid and least on the lower edge of the mandibular corpus.[2,14] This can be eithertypically symptomatic or asymptomatic accidentalfindings in the routine clinical and radiographicinvestigations. Mostly the impacted tooth have an upward crown position of the ectopic molar whereasthe others had a downward inclination or even aninverted crown position of the ectopic molar.[11,16]This paper, reports a case of infiltration of anectopic third molar on the left ramus-condylarjunction.

II. CASE REPORT

A 60-year-old male reported at Chakraborty hospital Andamans, and witha complaint ofdifficulty in mouth opening from 1 month. The patient was further referred to a higher centreat Meenakshi Ammal Dental College And Hospital, Chennai for further management and treatment. Therewas the presence of an evident extraoral sinus openingwith discharge on the left cheek region. Radiologicexamination revealed the lower left third molar,located on the junction of the left ascending ramusand neck of the condyle. (Figure 1). The tooth hadbeen sitting with the crown facing towards thesigmoid notch and the apex facing upward towardsthe neck of the condyle. A magnetic resonanceimaging (MRI) scan exposed the relationship of theectopic tooth to the anatomic structure. An ill-definedmarrow edema was observed in the ramus and thecondyle of the mandible on the left side. It waspositioned upward and outward to the close to theouter cortical bone showing erosion of the ramus ofthe mandible. The minor collection was also observed in theleft masseter muscle measuring 10 x 9mm. The edemawas also observed in the left masseter and parotid glandindicating soft tissue cellulitis. A retromandibularapproach is also known as Hinds/Post Ramal approachwas used for the access of the ectopic tooth. Thetooth with the surrounding infection was addressedand removed in toto with the complete preservationof the nerve and parotid gland. There was sufficientbony support hence no reconstruction was done andleft for healing. the contralateral side of the impactedthird molar that was placed in a horizontal position wasalso removed as a preventive measure. Postoperativerecovery was uneventful with complete resolution ofthe entire swelling. After a

International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 420-424 www.ijdmsrjournal.com ISSN: 2582-6018

6month postoperativereview revealed no recurrence or further dischargefrom the skin lesion. Adequate mouth opening wasalso achieved after aggressive sessions ofphysiotherapy.

III. DISCUSSION

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

The exact etiology and incidence of ectopic remainunknown.[4,7]It has been suggested that an aberrant eruptionpattern results when the tooth has been displaced by a lesion,usually an odontogenic cyst.[3,10,11]In most cases, an OPGtogether with clinical examination is usually sufficient forthe diagnosis of an ectopic third molar. However, MRI /CT scansare sometimes required to determine the tooth andassociated lesions in a more precise anatomical position andits relation to adjacent vital structures. Indications fortreatment of ectopic third molars in the condylar region areto prevent recurrent infection if there is an associatedpathology, such as a cyst that cannot be safely observed, orthere is a significant risk of a pathological fracture. Theassociated infection and decreased mouth opening are themain indications in this case. There are various other surgicalapproaches intraoral, extraoral – preauricular,submandibular including trans-masseteric approaches forexcising in the condylar - Ramus region.[1,6,8]However, Aretromandibular approach, providing adequate exposuretowards the tooth and soft tissue lesion was a better choice forthis case.[3,13,14] This also helps in providing minimal damage to thefacial nerve and other vital structures. In certain situations,endoscopic removal is possible, however, it was not indicatedin this particular case because of the difficulty that would beencountered in sectioning and removing the tooth andensuring complete removal.[5,12]

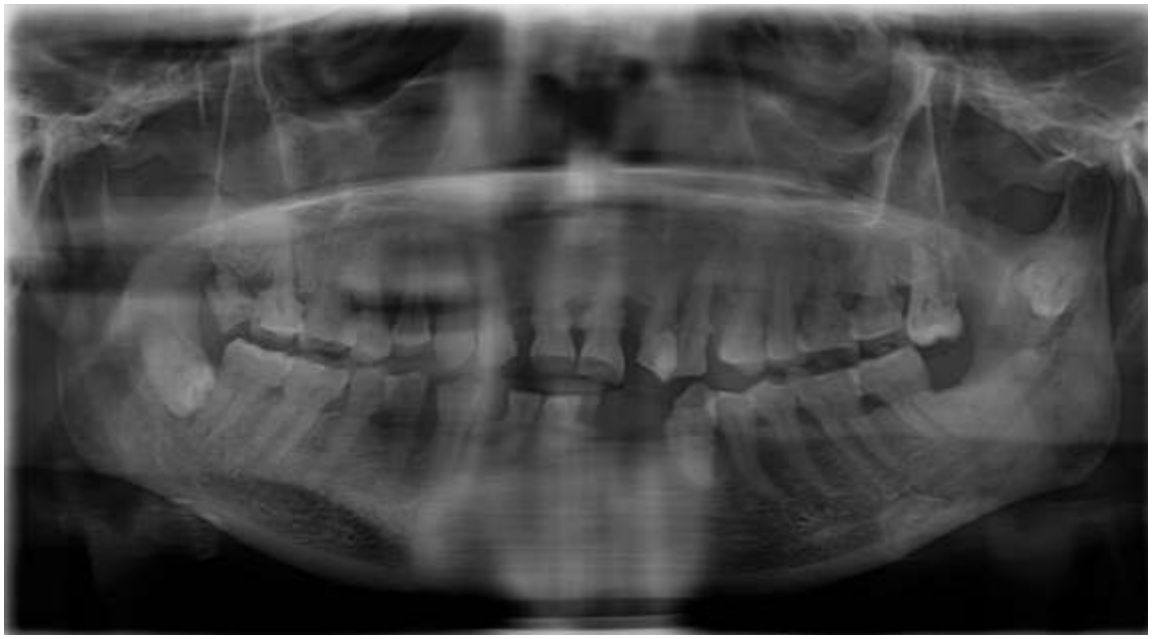
IV. CONCLUSION

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.

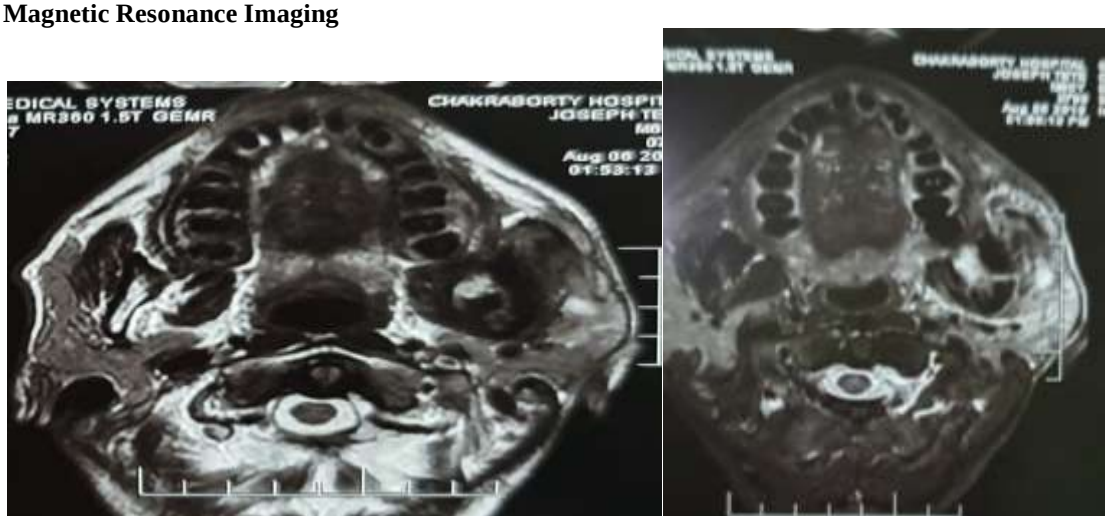
Presurgical

Orthopantomograph

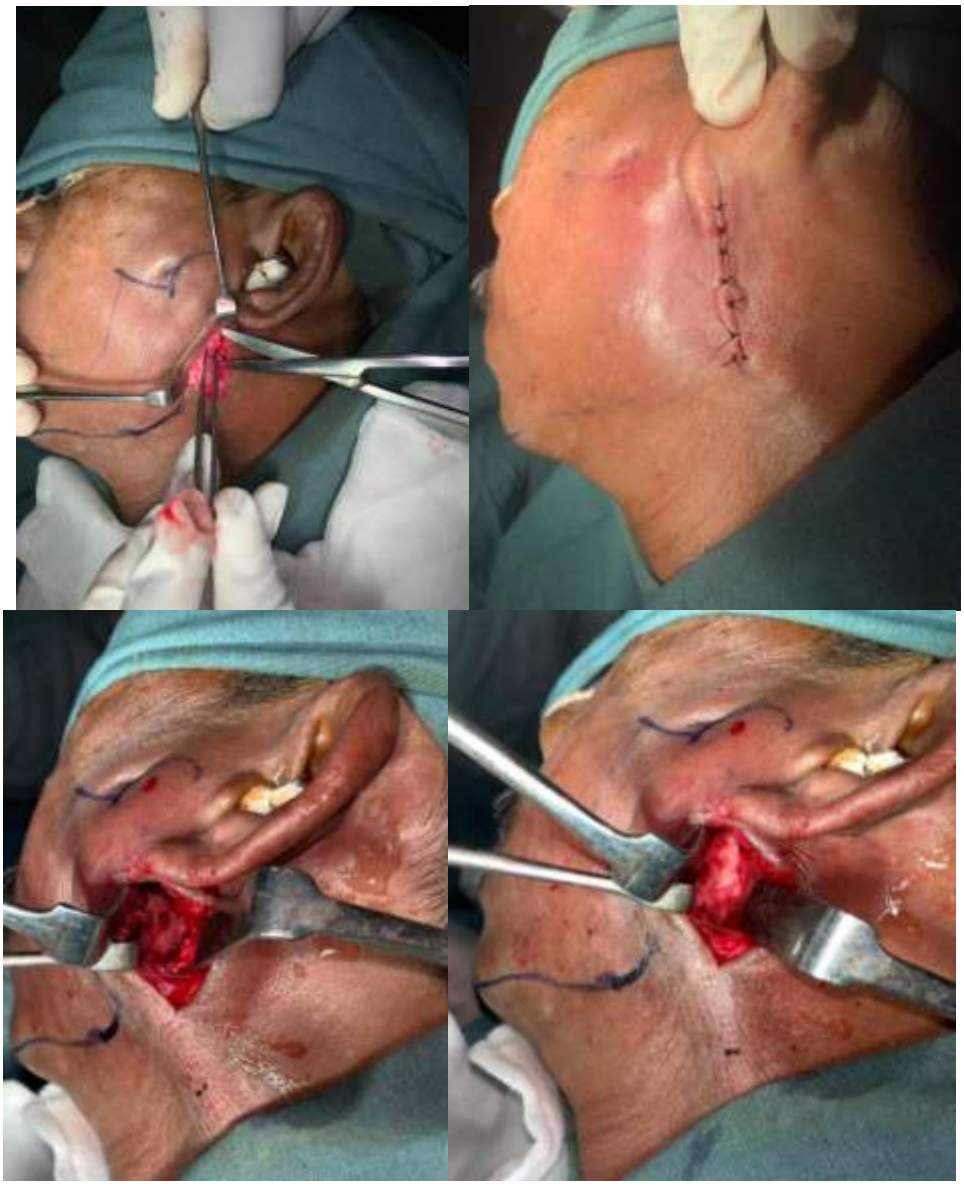
International Journal Dental and Medical Sciences Research
Volume 4, Issue 4, July-Aug 2022 pp 420-424 www.ijdmsrjournal.com ISSN: 2582-6018



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

Consent for publication – received from the patient and concerned hospital for case report publication

Competing interest – none

Author contribution- declared above

Funding- not applicable

Availability of data and material – case presented at the hospital.

REFERENCES AND BIBLOGRAPHY

[1]. Almomen, Ali, B Alkhudair, A Alkhatib, G Alazzah, Zainab Ali, Ibrahim Al Yaeesh, Ahmed AlOmairin, Abdullah Alshuaibi, and Abdulelah AlBahr. "Ectopic Maxillary Tooth as a Cause of Recurrent Maxillary Sinusitis: A Case Report and Review of the Literature." Journal of Surgical Case Reports 2020, no. 9 (September 1, 2020): rjaa334. https://doi.org/10.1093/jscr/rjaa334.

[2]. Apaydin, Aysegul. "Ectopic Third Molar in Mandibular Ramus: Report of Two Cases and Literature Review." International Journal of Oral and Dental Health 1, no. 2 (June 30, 2015). https://doi.org/10.23937/2469-5734/1510007.

[3]. Birch, Catharine. "Aberrant Molar Tooth In The Floor Of The Nose." Archives of Otolaryngology 39, no. 3 (1944): 262-262.
[4]. Bortoluzzi, Marcelo C., and Rafael Manfro. "Treatment for Ectopic Third Molar in the Subcondylar Region Planned With Cone Beam Computed Tomography: A Case Report." Journal of Oral and Maxillofacial Surgery 68, no. 4 (April 2010): 870–72. https://doi.org/10.1016/j.joms.2009.04.072.
[5]. Bowman, Jonathan, Barry O'Regan, and Sats Bhopal. "Transmasseteric Antero-Parotid Approach: A Technique Adaptation for Ectopic Subcondylar Third Molar Removal and Associated Dentigerous Cyst Enucleation." British Journal of Oral and Maxillofacial Surgery 52, no. 1 (January 2014): e7–8. https://doi.org/10.1016/j.bjoms.2013.10.011.
[6]. Chawla, Sonia, Mayank Singhal, and Aditi Yadav. "Ectopic Supernumerary Tooth in Nasal Cavity : A Rare Case Report." Santosh University Journal of Health Sciences, n.d., 3.
[7]. Crolius, William E. "Dentigerous Cyst with an Aberrant Third Molar in the Maxillary Sinus." Oral Surgery, Oral Medicine, Oral Pathology 11, no. 1 (January 1958): 31–33. https://doi.org/10.1016/0030-4220(58)90216-0.
[8]. Demir, Esin, Cagdas Elsurer, and Mete Kaan Bozkurt. "Transnasal Endoscopic Approach to Extraction of Ectopic Maxillary Third Molar Tooth." Edited by Mateus Rodrigues Tonetto. International Journal of Medical and Dental Case Reports 7, no. 1 (2020): 1–3. https://doi.org/10.15713/ins.ijmdcr.142.
[9]. Elmorsy, Khairy, Lubna K. Elsayed, and Sara M. El Khateeb. "Case Report: Ectopic third molar in the maxillary sinus with infected dentigerous cyst assessed by cone beam CT." F1000Research 9 (2020).
[10]. Findik, Y., and T. Baykul. "Ectopic Third Molar in the Mandibular Sigmoid Notch: Report of a Case and Literature Review." Journal of Clinical and Experimental Dentistry, 2015, e133–37. https://doi.org/10.4317/jced.51871.
[11]. Forgach, Gary A., and Stephen P.R. MacLeod. "Ectopic Molar Removal from the Ramus/Condyle Unit: A Minimally Invasive Approach." Craniomaxillofacial Trauma & Reconstruction 11, no. 1 (March 2018): 059–064. https://doi.org/10.1055/s-0036-1594275.
[12]. Hanisch, Marcel, Leopold F. Fröhlich, and Johannes Kleinheinz. "Ectopic Third Molars in the Sigmoid Notch: Etiology, Diagnostic Imaging and Treatment Options." Head & Face Medicine 12, no. 1 (December 2016): 36. https://doi.org/10.1186/s13005-016-0133-x.
[13]. Lee, Young-Kyu, Sung-Soo Park, and Hoon Myoung. "Surgical Extraction of Mandibular Third Molar in Pterygomandibular Space: A Case Report." Journal of the Korean Association of Oral and Maxillofacial Surgeons 39, no. 5 (2013): 242. https://doi.org/10.5125/jkaoms.2013.39.5.242.
[14]. Pace, C, D Holt, and M Payne. "An Unusual Presentation of an Ectopic Third Molar in the Condylar Region: Ectopic Third Molar." Australian Dental Journal 55, no. 3 (September 1, 2010): 325–27. https://doi.org/10.1111/j.1834-7819.2010.01243.x.
[15]. Salmerón, J.I., Á. del Amo, J. Plasencia, R. Pujol, and C.N. Vila. "Ectopic Third Molar in Condylar Region." International Journal of Oral and Maxillofacial Surgery 37, no. 4 (April 2008): 398–400. https://doi.org/10.1016/j.ijom.2007.09.172.
[16]. Wang, Chun-Cheng, Sang-Heng Kok, Lien-Tuan Hou, Puo-Jen Yang, Jang-Jaer Lee, Shih-Jung Cheng, Ru-Cheng Kuo, and Hao-Hueng Chang. "Ectopic Mandibular Third Molar in the Ramus Region: Report of a Case and Literature Review." Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology 105, no. 2 (February 2008): 155–61. https://doi.org/10.1016/j.tripleo.2007.04.009.