

Bilateral Third Molars in Aberrant Position- A Case Report

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Abstract

Wisdom tooth is often seen with varied morphologies and at aberrant positions. It is infamous for causing infections and pain associated with its unwarranted eruption. Very few cases have been published with bilateral impacted third molars and especially ones where the tooth is present close to the sigmoid notch without any associated pathologies. Here we present a case report where bilateral impacted teeth were present and the treatment was done under general anesthesia.

Keywords: Aberrant, Third molar, Impaction

Introduction

Wisdom tooth is often seen with varied morphologies and at aberrant positions. It is infamous for causing infections and pain associated with its unwarranted eruption. This poses a serious problem for the general health of the patient, as it can lead to referred pain behind the ears, in the TMJ region, in the occipital region and sometimes it may even radiate to the neck.

Impaction is an abnormality of development which predisposes to pathological changes such as pericoronitis, caries, resorption and periodontal problems. Cysts and tumours may also arise and can proceed to an advanced stage before the presentation of symptoms. ¹ This is a common condition with a frequency of 20%-30%, with higher prevalence in women.²

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 position in the body of the mandible, and the position of its long axis.³

Ectopic mandibular third molars, however, are unusual, with their heterotopic positions reported rarely in the condylar area, in the ascending ramus of the mandible, or in the coronoid process. Owing to the rarity of this condition, few cases have been reported, and the etiology and optimal management of ectopic mandibular third molar are still unclear.

Bilateral impacted third molars at aberrant positions are even much rarer to find in literature. Here, we present a case report of a patient with Bilateral impacted third molar. The third molar present on the right side was impacted in the ramus region, while the third molar of left side was a horizontally impacted tooth present near the roots of the adjacent tooth and entwined with the inferior alveolar nerve.

Case report

A 33 year old female presented to our clinic with the chief complaint of recurrent pus discharges and pain from the left third molar area since past 3 months. The patient had already taken three courses of antibiotic therapy before being referred to the specialist. She complained of pain which radiated to her ears on the left side. No loss of sensation along her lips or restriction of mouth opening was noted for the patient. A standard orthopantograph was ordered for her, which revealed the aberrant position of the teeth on both the sides. Incidentally the finding of her lower right impacted third molar was noted along the anterior border of ramus in an inverted position. The left third molar revealed a horizontally impacted tooth completely embedded in the angle of mandible region and suspended on the inferior alveolar nerve. The position of these two teeth warranted the need for more detailed radiography and a CBCT was advised for the patient to record the positions on both the sides.

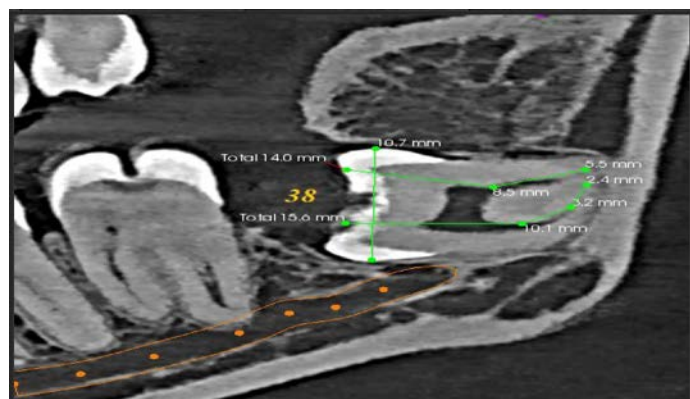


Figure 1: CBCT Measurements For Left Third Molar

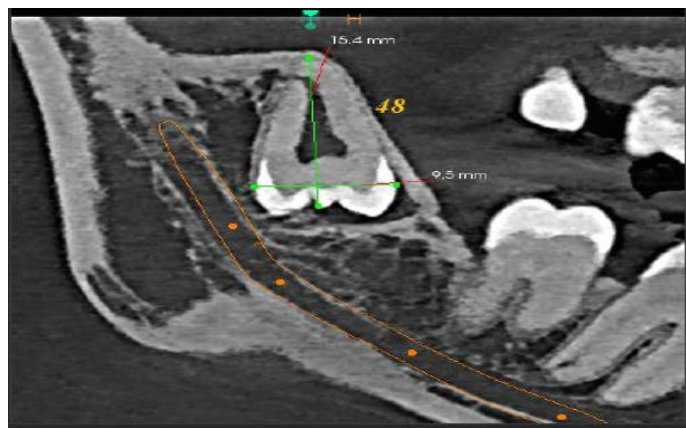


Figure 2: CBCT Measurements of Right Third Molar



Figure 3: OPG Revealing the Position of Impacted Teeth with Adjacent Structures

Treatment given

The patient was taken up under general anesthesia to be prepared for any inadvertent fractures of the angle of mandible or that of the coronoid process owing to its proximity. The risks were explained to the patient concerning the fractures and of inferior alveolar nerve injury on both the sides and consents were taken preoperatively. Under nasal intubation, patient was draped and painted following aseptic protocols. The surgical sites were infiltrated using Lignocaine with adrenaline (1:80,000 dilution) to achieve hemostasis at the site of incision.

Site 1: For the right third molar, an extended ward's incision distal along the external oblique ridge was placed similar to the one placed for ramal osteotomies during orthognathic upto 15 mm above the occlusal plane.

Mucoperiosteal flap was reflected and was then dissected free buccally and lingually, including the buccal aspect of the mandibular angle. The tissues were retracted with a forked ramus retractor and a lingual retractor was placed to protect those tissues. Once an approximate position was determined based on radiographic values, guttering was done along the medial wall of ramus to locate the impacted molar. The impacted tooth was localised and sectioned for safe removal of the roots as it lay in close proximity to the sigmoid notch and coronoid process. The crown and root sections were removed separately to avoid any unnecessary pressures on to the coronoid process. The surgical site was irrigated well and any bony spicules present were smoothed using a bone file. The flap was sutured using 3-0 prolene.



Figure 4: Extracted Tooth 48

Site 2: For the left third molar, extended wards incision was placed and mucoperiosteal flap was reflected. Guttering was started from the distal-most end of the second molar in the cervical region and extended posteriorly by 2-3mm. The bone surrounding the crown was guttered completely and the distal cusp of the tooth visualized. Following which the bone covering the crown and root structures were removed completely to allow for better visualization. The tooth was then sectioned in the horizontal plane along the cervical region and both the roots were also removed separately. The neurovascular

bundle was protected by avoiding bone guttering near the roots. Minimal bleeding was noted on elevation of the roots and no inadvertent fractures were noted.



Figure 5: Extracted Tooth 38

During the procedure, no inadvertent fractures occurred. Post-operatively the patient suffered from paraesthesia of the left side along the lower lip and the mental region. She was reviewed at intervals of 1 week, 2 weeks and 4 weeks, wherein the paraesthesia was found to be reducing and getting further localised on the left lower lip region. This indicated only transient stretching of the nerves which showed marked improvement with subsequent reviews.

Discussion

Several causes of impacted teeth have been recorded in history. They may occur owing to a deviated initial position of the third molar germs or an aberrant eruption pattern. This could be due to developmental cysts, tumors or infections. A lack of space between the mandibular second molar and the ramus of the mandible may also contribute to the unusual position of such molars.⁴

Surgical removal of teeth with acute inflammation or cystic lesions is recommended to prevent further complications such as osteolysis, condylar process

deformity, or bone absorption. Alternatively, it is recommended that the third molars be removed prophylactically in most cases to avoid future infections. The methods of surgical removal can include either extraoral approach or the intraoral route. External accesses have an advantage of good exposure of the surgical site but may result in complications such as scar formation, damage of joint components, facial nerve injury in the case of pre-auricular access, or damage of the marginal branch of facial nerve in the case of submandibular incisions. The intraoral route may avoid these problems but it provides a smaller surgical site comparatively.⁵ Alling et al. introduced 2 techniques which uses intraoral approaches in which one of them requires a sagittal split of the mandibular posterior body and ramus to provide surgical access to the ectopic tooth while the other technique involves removal of lateral cortical bone with a bur and a chisel to give access to the cancellous portions of the mandible.³ Careful attention needs to be given to the critical situation when a tooth is being removed from the condylar neck, because the remaining bone is frequently thin and may fracture. The risk of damaging the neuronal structures and the joint components, defect reconstruction after the surgery, should also be evaluated before treatment. Oikarinen & Altonen (1970)⁶ described a case of impacted third molar in the condylar region. The removal was carried out in a more extensive fashion utilizing an extraoral approach and osteotomy along with removal of the condyle with the impacted molar was achieved. However, this aggressive strategy put joint structures, neuronal structures at risk and produced avoidable scar formation. In case of an unfortunate fracture any type of stabilization is extremely difficult due to the small amount of bone available for screw or wire placement. Hence an intraoral approach fits better for such cases while also keeping the age of the

patient in mind.⁷ It produces lesser risks and delivers higher results. The patient should always be informed pre-operatively of the possible risks and the surgeon must be prepared to handle any inadvertent events during the operation.

Conclusion

Many complications are involved when impacted teeth are seen in ectopic positions. These can be reduced when the treatment plan is properly pondered upon and formulated with the help of current concepts and surgical options available. The risk of nerve injury, condylar fractures, angle of the mandible fractures, and dry socket should be weighed against possible future complications of chronic non-resolving infections for risk-benefit assessment. Adequate exposure of the surgical site is a need to undertake such procedures. The option of an extraoral incision should be evaluated based on the age of the patient and the possible risks associated with it. Such procedures should be preferably done under general anesthesia for better management of complications.

References

1. Kaya G, Muzaffer M, Omezli M, Dayi E. Some morphological features related to mandibular third molar impaction. *Journal of Clinical and Experimental Dentistry*. 2010.
2. Andreasen JO, Petersen JK, Laskin DM, editors. *Textbook and color atlas of tooth impactions*. 1st ed. St. Louis: Mosby Year Book; 222-6.
3. Alling CC, Helfrick JF, Alling RD, editors. *Impacted teeth*. 1st ed. Philadelphia: W.B. Saunders; 1993. p. 197.
4. Wang C, Kok S, Hou L, Yang P, Lee J, Cheng S et al. 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*. 2008;105(2):155-161.

5. Wassouf, A; Eyrich, G; Lebeda, R; Grätz, K W (2003). Surgical removal of a dislocated lower third molar from the condyle region: case report. Schweizer Monatsschrift für Zahnmedizin SMfZ, 113(4):416-420.
6. Oikarinen V J, Altonen M: Impacted third molar in condyloid process : Report of a case. Oral Surgery 30: 7–10, 1970
7. Bruce RA, Frederickson GC, Small GS. Age of patients and morbidity associated with mandibular third molar surgery. JADA 1980;101:240