

## Even a Tooth Slips Sometimes

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## INTRODUCTION

Impaction of mandibular third molars in dentoalveolar region is common clinical finding. However, ectopic presence of same teeth in non-dentate area is rare entity.<sup>1</sup> Till date, as per the reviews in literature, very few cases have been reported.<sup>2</sup> Hence we have limited knowledge about the etio-pathogenesis, clinical features and the treatment options.<sup>3</sup> The heterotopic positions reported are the condylar area, the ascending ramus of the mandible, the sigmoid notch, the body of the ramus or in the coronoid process.<sup>2</sup> Because most cases are asymptomatic, they are usually incidental in finding and require no active intervention. However, a regular follow-up is advised to look for any potential complications.

We report a case of ectopic mandibular third molar in right body of ramus of mandible below the sub-condylar area.

## ABSTRACT

While impaction of a tooth or two in dentoalveolar region is common, ectopic presence of them in non-dentate area is less commonly reported. A 45-year-old female reported to the department with pain on right back teeth region since two days. On examination, grossly decayed 46, root stump 47, missing 48, with poor periodontal status were noted. Panoramic radiograph was advised for screening, which revealed an inverted impacted 48 at the right ramus just below subcondylar region. However, it was an incidental finding and the patient was asymptomatic, she was informed about the pros and the cons of her case and kept under close monitoring.

## KEY WORDS

*Ectopic, impacted tooth, panoramic radiography, tooth eruption*

## CASE REPORT

A 45-year-old female reported to Department of Oral Medicine and Radiology, College of Dental Surgery, BP Koirala Institute of Health Sciences, Dharan with chief complaint of pain in right back region of lower jaw since two days. On examination she had buccal gingival swelling of about 6\*7 mm<sup>2</sup>, soft, fluctuant and tender on palpation with sinus opening and pus discharge with respect to grossly carious 46 and root stumps 47. Since she had other missing and carious teeth with poor periodontal status a panoramic radiograph was advised.

Besides other routine dento-alveolar findings, panoramic radiograph in right body of ramus of mandible just below the subcondylar region, revealed a well-defined radiopaque structure morphologically similar to tooth with presence of coronal and radicular portion in an inverted fashion.

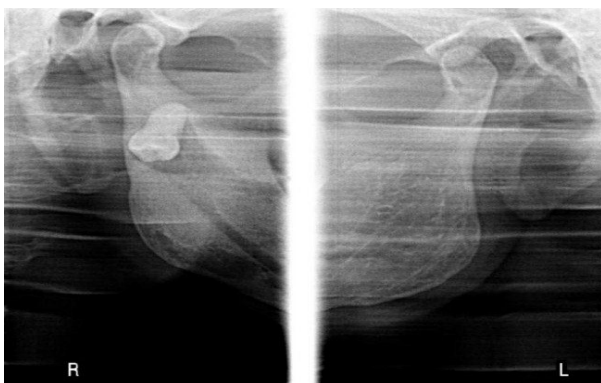
The radiolucent image around the coronal portion and its continuation anteriorly and inferiorly towards retromolar trigone simulates an ectopic path of eruption. (Figure: 1)



**Figure 1.** Panoramic image: right body of ramus of mandible just below the subcondylar region, reveals a well-defined radiopaque structure morphologically similar to tooth with presence of coronal and radicular portion in an inverted fashion. The radiolucent image around the coronal portion and its continuation anteriorly and inferiorly towards retromolar trigone simulates an ectopic path of eruption.

The patient was informed, counselled and motivated for routine follow up visit every month, and radiographic evaluations that she needs to undergo. She was also informed regarding the possible signs and symptoms and the complications that may arise in future. However, she underwent other routine dental treatment she required as per her chief complaint.

On one month follow-up, she was completely asymptomatic regarding ectopic third molar. As a screening process, to have a closer view she was advised lateral TMJ radiograph (Figure: 2) the finding of which was similar to previously taken panoramic radiograph. The patient is on regular follow-up now.



**Figure 2.** Lateral TMJ image: reveals a closer capture of the ectopic 3rd molar. The distal surface of the crown is at about 2 mm from the posterior border of ramus and the root apex is about 4-5 mm from the sigmoid notch.

## DISCUSSION

A tooth is said to be ectopic if it is malpositioned either due to congenital factors or displaced due to pathologic reasons.<sup>4</sup> The true incidence and etiology of ectopic mandibular third molars remain unknown.<sup>3</sup> It may be associated with developmental disorders of jaws, pathological conditions or iatrogenic. Several theories have been put forward to explain ectopic locations of third molars, including the aberrant eruption, trauma, and ectopic formation of tooth germs.<sup>5</sup> Dentigerous cyst is the most common benign lesion related to impacted mandibular third molar. Over time, the pressure exerted by the intracystic fluid on the occlusal aspect of the third molar may cause its displacement, sometimes from its original location.<sup>3</sup>

In the present case, the development of the tooth germ in an aberrant position or aberrant tooth germ eruption pattern may be the most likely etiology. Otherwise, primary and total dislocation of tooth base may be the cause. Peck reported that the intraosseous migration of impacted mandibular tooth is related to genetic determinants.<sup>6</sup> According to Marks et al. regional disturbance in the dental follicle might lead to local defective osteoclastic function, with an abnormal eruption pathway being formed.<sup>7</sup> Sutton believed that an abnormally strong eruption force,<sup>8</sup> or a change affecting the crypt of tooth germ might lead to erroneous eruption.<sup>3</sup>

Due to the sporadic nature it is not appropriate to definitively comment about the gender predilection, site, clinical signs and symptoms, etc. of ectopic 3<sup>rd</sup> molars. Most of the reported cases in literature are in women and located in mandibular subcondylar or condylar region.<sup>2</sup> The present case also adds to this list. According to a review article published in 2015,<sup>9</sup> among the 23 case reports, seven were in men, 13 in women and three were unknown gender of which 16 cases presented in condylar and subcondylar area. The clinical symptoms may be in the form of pain and swelling, trismus or sometimes fever with acute inflammation and draining sinus.<sup>2</sup>

As mentioned earlier these ectopic teeth are rarely symptomatic and often incidental in finding like the case study above. In cases of symptom-free highly aberrant wisdom teeth or without urgent necessity, annual follow-up visits to monitor the growth of the lesion are appropriate.<sup>9</sup> However, regular follow up and radiographic evaluation as in the above case keeps the patient as well as the oral physicians on safe side in every aspect.

Extraction of ectopic third molars in the coronoid and condylar regions is recommended to avoid the morbidity caused by infection of the cyst, malfunction of the temporomandibular joint, and risk of fracture in an area with a very thin bone.<sup>9</sup>

We reported a 45 year old women with impacted mandibular third molar in body of ramus below subcondylar area,

who was asymptomatic. She is kept under regular follow up to monitor the development of any new symptoms or pathology and to observe any increase or decrease in the associated radiolucency. Apparently there seems little we can do to prevent this condition, regular dental checkup

with radiographic assessment is advised to see for the current oral health status or any innocuous conditions as in this case. Treatment if planned should be based on the morbidity of the patient.

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