



RESEARCH ARTICLE

INVERTED AND IMPACTED MANDIBULAR THIRD MOLAR WITH INCOMPLETELY FORMED APICES: A RAREST OCCURRENCE

*¹Dr. Shilpi Gupta, ¹Dr. Vikas Verma, ¹Dr. Gunjan Verm and ²Dr. Abhishek Gaur

¹Department of Periodontology, UPUMS, Saifai

²Department of Prosthodontics, Career Dental College, Lucknow

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ABSTRACT

Inverted third molar impaction with incompletely formed apices is a rarest occurrence. Very few cases have been reported in literature till date. Here we report an interesting case of inverted mandibular third molar impaction in a 27 year old female patient with rarest presentation.

Key words:

Ectopic tooth eruption,
Ramus, Odontogenic epithelium,
Alveolar crest.

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INTRODUCTION

Tooth eruption is a complex, localized, and programmed sequence involving bone remodeling at specific timing. Impaction of third mandibular molars is a frequent condition with an incidence of 20-30%, with more prevalence in women (Andreasen *et al.*, 1997). The finding of an impacted third molar in the mandible in an ectopic position located away from its usual anatomic location is not so common. The knowledge about its etiology, clinical features, therapeutic options, and surgical approaches for extraction is unclear (Manoj *et al.*, 2014). During mandibular development as the ramus elongates and grows upward, it may take the tooth germ with it. The development of an associated cyst or tumor may push the tooth into an abnormal position as the cyst grows. When the tooth is grossly displaced, for example up into the ramus or down below the level of the mandibular nerve, it may be referred to as ectopic. The majority of ectopic mandibular third molars are associated with cystic lesions.

Other proposed causes include a lack of space between the second molar and ramus of mandible (Ahmed and Speculand, 2012), trauma and aberrant eruption (Toranzo Fernandez, 1992). The normal position for a third molar is distal to the second molar, however ectopic positions include: condyle, ramus, coronoid process, sigmoid notch and lower border of the angle of the mandible (Ahmed and Speculand, 2012). These teeth are often an incidental finding on routine radiograph and no treatment is required unless they are symptomatic or have associated pathology. We report an unusual impaction of mandibular third molar in an inverted direction with incompletely formed apices. Till date, this is the first case report of its own kind i.e.- Inverted & impacted mandibular first molar with incompletely formed apices.

Case Report

A 27 year female patient reported to the dental clinic complaining of missing tooth in mandibular anterior region. Clinical examination showed missing teeth in mandibular arch, marginal gingivitis and faulty metal splinting in mandibular anterior region. She pointed out regarding the pain in left mandibular posterior region.

*Corresponding author: Dr. Shilpi Gupta,
Department of Periodontology, UPUMS, Saifai

An OPG was taken and it showed an inverted, impacted with incompletely formed mandibular third molar on left side (Fig.1). The patient has been informed but she refused for the removal of impaction.



Fig. 1. OPG Showing inverted and impacted mandibular third molar with incompletely formed apices



Fig. 1. OPG Showing inverted and impacted mandibular third molar with incompletely formed apices

DISCUSSION

Any permanent tooth in the dental arch can be impacted, but the teeth most frequently involved in a descending order are the mandibular and maxillary third molar, the maxillary canines, the mandibular and maxillary second premolar, and maxillary central incisors (Rafi Ahmad Togoo, 2013). The etiology of impaction is multifactorial. Impacted teeth may be associated with periodontal disease, dental caries, odontogenic cyst and tumors, pain of unexplained origin, jaw fracture, and resorption of root of the adjacent tooth (Maglutac *et al.*, 2008).

Third molars in both the mandible and maxilla may develop far from their normal location due to unusual proliferation of odontogenic epithelium before development of tooth germ (Saleh, 2001). The inverted impaction has been called a complicated impaction as it has a crown pointing downwards and root pointing towards the alveolar crest (Pai, 2008). Removal of an inverted tooth is more complicated than that of simply impacted tooth because of age of the patient and the deeper position of the inverted tooth. Loss of bone would be a major disadvantage since these teeth are completely impacted in the bone (Pai, 2008). The dentist must weigh between risks and benefits of removal of impacted third molars and explain them thoroughly to the patient. The risk factors associated with surgical removal should be communicated to the patient. Patient's compliance or whether to or not to proceed must be obtained.

Conclusion

Impaction of mandibular molar in inverted direction is a rare occurrence and till date a very few cases of inverted mandibular molars have been reported in the literature. This case report would therefore add to the present academic literature available. In our view, the risks of removal of such asymptomatic teeth should be carefully weighed with the benefits of retaining.

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