

The Prevalence of Impacted Third Molars and their Associated Pathologies in Adult Patients with Age Group 25–60.

Ajrish George S

1 year BDS student, Saveetha Dental College, Chennai-77

Abstract:

Aim

To analyze the type of impaction impacted third molars and their associated pathologies in the age group of 25 to 60.

Background

Third molar or the wisdom tooth develops in the permanent dentition as an extension of the dental lamina posterior to the second molar. Most of the time it is completely impacted or partially impacted. The impacted third molars are extracted if it is associated with pain, swelling, and other pathologies. Early extraction of impacted third molars are recommended to prevent dental caries in adjacent second molar and other pathologies like cyst and tumor.

Reason

To check the prevalence of impacted third molar in adult patients, by which creating awareness in management of impacted third molar.

INTRODUCTION

Impacted teeth are those which fail to erupt during development. The mandibular and maxillary third molar, maxillary canine, maxillary lateral incisor and mandibular premolars are the commonly impacted permanent teeth. Third molars have been found to erupt between the ages of 17 and 21 years. The impacted teeth are prone for few pathologies which includes dental caries, odontogenic cyst and odontogenic tumor. Most of the time it is affected by caries which if not treated in early stages may produce discomfort to the patient. The impacted third molar also makes the adjacent second molar vulnerable for caries. Literature review reveals 75% of the people has caries in their impacted third molar and 85% of the study group with impacted third molar were associated with periodontal pathologies. The indication for the removal of the third molar includes recurrent periodontitis, abscess, osteomyelitis, non-restorable caries, periapical pathology and internal resorption. Prophylactic impacted tooth extraction were suggested by few authors considering their associated pathologies. The complication of impaction extraction like nerve paresthesia, hemorrhage and even fracture of jaw should be considered and explained to the patient in prophylactic extractions. The study was carried out to analyze of the type of impaction in maxillary and mandibular third molar and their associated pathologies in the age group of 25 to 60.

AIM AND OBJECTIVE :

To the analyze of the type of impaction in impacted third molar and their associated pathologies in the age group of 25 to 60.

MATERIALS AND METHODS

The study was carried out in the department of Radiology of saveetha dental college and x – rays were collected from the registry. 27 patients Panoramic x-ray fulfilling the inclusion criteria were selected as study group . Panoramic

x-ray was examined to analyse the type of impaction in mandibular and maxillary third molar and associated pathologies were also assessed. Winters imaginary lines was used to assess the type of impaction.

Inclusion criteria:

Radiographic evidence of impaction orthopantomogram(OPG) of the Patient within the age group of 25 to 60.

Exclusion criteria:

1. Not within the specified age group
2. OPG with no evidence of impaction.

RESULT

19 out 26 patients have mandibular third molar impaction, 6 patients had maxillary impaction and mandibular third molar impaction and one had maxillary molar impaction.

Sl no	Findings	Number of cases expressed the finding
1	Partial impaction	18
2	Complete impaction	8
3	Mesioangular	18
4	Distoangular	2
5	Horizontal impaction	5
6	Vertical impaction	1
7	Caries in impacted third molar	8
8	Caries in adjacent second molar	4

DISCUSSION

The impacted molars is a frequently encountered problem worldwide. There are various theories to demonstrate the process of impaction. **Orthodontic theory** : Jaws develop in downward and forward direction. Growth of the jaw and movement of teeth occurs in forward direction ,so any thing that interfere with such movement will cause an impaction

(small jaw-decreased space). A dense bone decreases the movement of the teeth in forward direction. **Phylogenic theory:** Nature tries to eliminate the disused organs i.e., use makes the organ develop better, disuse causes slow regression of organ. [More-functional the masticatory force – better the development of the jaw]. Due to changing nutritional habits of our civilization, use of large powerful jaws have been practically eliminated. Thus, over centuries the mandible and maxilla decreased in size leaving insufficient room for third molars.

The present study showed 73% of cases had mandibular third molar impaction, 23% percent of cases showed both mandibular and maxillary impaction and one case exhibited maxillary impaction. 69% of cases showed partial impaction and 31% percent cases showed complete impaction. In the present study the impaction is common in 30-40 year age group. The result of present study concludes the above finding with 79 percentage cases exhibited mesioangular impaction in mandibular third molar. Vertical and mesioangular impaction were common in maxillary third molar.

Arsalan Wahid et al reported that impaction were more common in females and vertical impaction is common in maxillary tooth and mesioangular in mandibular tooth.

Impacted tooth were even more prone for dental caries and the second molar associated with third molars were also prone for dental caries, the present study shows that 31% of impacted third molar and 15% of associated second molars were affected by dental caries. Present study also shows that second molar associated with mesioangular impacted mandibular third molar were more prone dental caries. Robert D. Marciani et al suggested that not every third molar needs to be removed. Full bony impacted lower third molars well below the cervical margin of the second molar crowns should be considered for retention. Risk factors associated with third molar removal should be carefully established and explained to the patient.

CONCLUSION

1. The present study concludes that third molar impaction is most common in mandible
2. Mesioangular is the most common impaction in mandibular third molar and vertical and mesioangular in maxillary third molar
3. 73% of cases had mandibular impaction.
4. 69% of cases showed partial impaction.
5. 30% of cases had dental caries in impacted teeth and 15% of cases showed dental careies in adjacent second molar. No other pathologies noticed.

REFERENCE

1. Assessment of Different Patterns of Impacted Mandibular Third Molars and their Associated Pathologies Asif Nazir, Muhammad Usman Akhtar, Shahid Ali
2. Mandibular Third Molar Impaction: Review of Literature and a Proposal of a Classification Gintaras Juodzbalys and Povilas Daugela
3. Complications of Third Molar Surgery and Their Management Robert D. Marciai, DMD
4. PREVALENCE OF IMPACTED MANDIBULAR AND MAXILLARY THIRD MOLARS: A RADIOGRAPHIC STUDY IN PATIENTS REPORTING MADINA TEACHING HOSPITAL, FAISALABAD Arsalan Wahid, Farrukh Imran Mian, Syed Akhtar Hussain Bokhari, Azka Moazzam, Ayesha Kramat, Fatima Khan.
5. The Wisdom Behind Third Molar Extraction: A Clinicopathologic Study Monica Yadav, Meghana SM, Atul Deshmukh, Pournima Godge
6. Impacted third molars and risk of angle fracture T. Meisami A. Sojat G.K.B. Sàndor H.P. Lawrence C.M.L. Clokie
7. Huelke, DF, Burdi, AR. Location of mandibular fractures related to teeth and edentulous regions. J Oral Surg. 1964;22:396–405.
8. Management of Impacted Third Molar Teeth: An Evidence Based Approach ,Brian Rittenberg, DDS, MSc, FRCD(C); Kris Lee, BSc, DDS, MD, FRCD(C) 2014-06-01