

**Original Article****The Perception of Third Molar amongst Dentists: A Cognitive Study**

Authors

**Bandana Khanal^{1*}, Ishfa Banu Haque¹, Sandhya Joshi¹,
Kishor Bhandari¹, Reema Joshi²**¹Oral & Maxillofacial Surgery, Dental Department, NAMS, Bir Hospital²Conservative Dentistry & Endodontics, Dental Department, NAMS, Bir Hospital

*Corresponding Author

Bandana Khanal

Associate Professor, Oral & Maxillofacial Surgery, Dental Department, NAMS, Bir Hospital

Email: abandanakhanal@gmail.com**Abstract**

Third molar extraction is the most routinely done minor surgical procedure. Every clinician undertakes the third molar for clinical and radiographic assessment before carrying out the treatment but there is customization and individual variation in each.

The present survey aims to find out the perception of general dentist regarding treatment tailoring for third molar and also intends to find out the protocol of management of third molar extraction amongst them.

Introduction

Third molars are the last tooth to erupt in the oral cavity and most of the times they are either partially or fully impacted in the mandible. They are often associated with anticipated complications like pericoronitis, cystic transformations, periodontal problems and root resorption of the adjoining tooth. These reasons necessitate the removal of the third molar^[1].

Third molar surgeries are most common minor oral surgical procedure performed by the dentists. It has always been associated with complications such as persistent pain, swelling, prolonged bleeding, trismus and even nerve injury^{[2][3]}. However, these complications can be prevented to some extent with proper evaluation and treatment planning^{[4][5]}.

There are a number of radiographic and clinical assessment tools and techniques for the surgical management of impacted tooth, but there is no consensus or an advocated guideline as to what is to be done to a particular type of impaction^{[6][7]}.

This often leaves the clinical management to clinicians' perception and his/her exposure.

The current study was carried out as a pilot study to get a glimpse of general management protocol of the dentists with regard to third molar.

Materials and Method

Random samples of 60 general dentists were taken during the Annual Dental Conference. Inclusion criteria included general dentists with 2 to 5 years of clinical practice. The mode of survey was verbal comprising of five single choice questions. These five questions were selected to assess their mode of management of impacted third molar. A verbal consent was taken and all were informed of the fact that their answers would be used statistically in the survey. All the dentists approached gave consent for the study.

Results

The answers of the five single choice questions were tabulated and calculated in percentage. (Table 1)

Distoangular impaction was found difficult by majority (65%) of the dentists. Similarly, majority of the dentists (67%) found prophylactic removal of third molar justifiable. Views on OPG for third molar removal were found almost equal for and against it. The most striking data on the table is in support of prescription of antibiotic post extraction (87%). The prescription of steroids and proteolytic enzymes on the other hand is much lower in comparison to antibiotic (45%). However, 45% is not a smaller number in itself.

Table 1: Comparison of answers of the survey

SN	Question	Answers (Numbers/Percentage)	
1.	Most difficult impacted tooth for surgical extraction.	Distoangular 39 (65%)	Horizontal 21 (35%)
2.	Is OPG Mandatory for all the cases?	Yes 28 (47%)	No 32 (53%)
3.	Is prophylactic removal of third molar justifiable?	Yes 40 (67%)	No 20 (33%)
4.	Do you prescribe antibiotic post-extraction?	Yes 52 (87%)	No 8 (13%)
5.	Do you prescribe steroid or proteolytic enzyme post-extraction?	Yes 27 (45%)	No 33 (55%)

Discussion

The decision making and treatment planning for third molar removal is undoubtedly a complex one. In a prospective cohort study done in India, the study showed that distoangular impaction is the most difficult type of impaction that oral surgeons see in their day-to-day practice^[8]. Our study also has a similar finding. Studies in the past have documented the presence of periodontal disease around asymptomatic third molars^[9]. The American Association of Oral and Maxillofacial Surgeons, firmly supports the surgical management of erupted and impacted third molar teeth, even if the teeth are asymptomatic, if there is presence or reasonable potential that pathology may occur caused by or related to the third molar teeth^[10]. These could be the governing factors for the higher number of dentists opting for prophylactic removal of third molar. Various

studies have shown the advantage of orthopantomogram (OPG) over an intraoral periapical radiograph (IOPA)^[11]. However, only half of our dentists agreed to it. Regarding antibiotic administrations, randomized controlled triads have concluded that it is necessary only in case of infected cases and those requiring bone removal to a larger extent^[12]. In our case, almost all the dentists preferred to go for antibiotic prescription routinely.

Use of steroids has been documented as useful if given parentally^[13] but its use postoperatively is not advocated in all the cases.

Overall, though verbal surveys are stated as useful, it has its own share of drawbacks and biases involved^[14]. However, the present study has tried to minimize it via single answers, thus serving to its objective.

Conclusion

In general, the survey reflects the pattern of management of third molar cases where the post-operative antibiotic use draws an alarming attention.

References

1. Norholt SE. Treatment of acute pain following removal of mandibular third molars. *Int J Oral Maxillofac Surg* 1998;27:3F37.
2. Motamedi MH. Concepts to consider during surgery to remove impacted third molars. *Dent Today*. 2007 Oct;26(10):136, 138-41; quiz 141, 129
3. Pogrel MA. What are the risks of operative intervention? *J Oral Maxillofac Surg*. 2012 Sep;70(9 Suppl 1):S33-6. Epub 2012 Jun 16.
4. Kim JW, Cha IH, Kim SJ, Kim MR. Which Risk Factors Are Associated with Neuro-sensory Deficits of Inferior Alveolar Nerve After Mandibular Third Molar Extraction? *J Oral Maxillofac Surg*. 2012 Aug 15.

5. Motamedi MH. Can an impacted mandibular third molar be removed in a way that prevents subsequent formation of a periodontal pocket behind the second molar? *J Can Dent Assoc.* 2006 Jul-Aug;72(6):532-3.
6. Carvalho RW, do Egito Vasconcelos BC. Assessment of factors associated with surgical difficulty during removal of impacted lower third molars. *J Oral Maxillofac Surg.* 2011 Nov;69(11):2714-21. Epub 2011 Jul 12
7. Freudlsperger C, Deiss T, Bodem J, Engel M, Hoffmann J. Influence of lower third molar anatomic position on postoperative inflammatory complications. *J Oral Maxillofac Surg.* 2012 Jun;70(6):1280-5. Epub 2012 Feb 4.
8. Srinivas M, Susarla, AB*, Thomas B, Dodson, DMD, MPH† ; Risk factors for third molar extraction difficulty; *Journal of oral and maxillofacial surgery*; Volume 62, Issue 11, November 2004, Pages 1363-1371
9. Ash M, Costich ER, Hayward JR: A study of periodontal hazards of third molars. *Journal of Periodontology* 1962;33:209
10. The American Association of Oral and Maxillofacial Surgeons; Evidence Based Third Molar Surgery; 2013:1-5.
11. Priya PV, Nasyam FA, Ramprasad M, Penumatsa NV, Akifuddin S, Sandeep. Correlating the clinical assessment of impacted mandibular third molars with panoramic radiograph and intraoral periapical radiograph. *J Int Soc Prev Community Dent.* 2016;6(Suppl 3):S219–S225. doi:10.4103/2231-0762.197198
12. Arora A, Roychoudhury A, Bhutia O, Pandey S, Singh S, Das BK. Antibiotics in third molar extraction; are they really necessary: A non-inferiority randomized controlled trial. *Natl J Maxillofac Surg.* 2014;5(2):166–171. doi:10.4103/0975-5950.154821
13. Herrera-Briones, F. J., Prados Sánchez, E., Reyes Botella, C., & Vallecillo Capilla, M. (2013). *Update on the use of corticosteroids in third molar surgery: systematic review of the literature.* *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2013 Nov;116(5):e342-51
14. Drennan J. Cognitive interviewing: verbal data in the design and pretesting of questionnaires. *J Adv Nurs.* 2003 Apr; 42(1), 57–63.