REVIEW ARTICLE

REMOVAL OF THIRD MOLARS – SHOULD WE HAVE GUIDELINES FOR SURGERY?

[1]AMBER KIYANI, BDS, Resident
[2]MOHAMMAD AZHAR SHEIKH, BDS, MSc (London), FDSRCS (Eng & Ire), FDS Oral Surgery (UK)
[3]ANUM ASHFAQ, BDS, Resident

ABSTRACT

Third molar surgery is the most frequent procedure carried out by the departments of oral and maxillofacial surgery all over the world. The procedure is accompanied by significant risks, with possible damage to the inferior alveolar and / or lingual nerve being of special concern. Considering these risks of morbidity, it is essential to establish the need of removal. National Institute of Clinical Excellence (NICE) in the United Kingdom introduced guidelines for removal of third molars in 2000, advocating that only pathological third molars should be removed. The following article makes reference to a study carried out in England where third molars are extracted in accordance with NICE guidelines. This study was carried out to assess the compliance of general dental practitioners to the NICE guidelines. It was noted that 95% of the patients referred for third molars extraction fulfilled the criteria set forth by NICE. 11% (15) patients who fulfilled the NICE guidelines criteria refused to undergo removal of third molars. Only 5% (7) patients did not meet referral criteria set by NICE guidelines. These guidelines cut down lot of unnecessary referrals and allowed for organization of the patient load by the secondary referral center, as well as limiting unnecessary surgeries and postoperative complications. There is a dire need to define similar guidelines in Pakistan pertaining to the local needs.

Key words: *Third molars, removal, NICE guidelines*

INTRODUCTION

Surgical removal of lower third molars is the most common procedure carried out by oral and maxillofacial surgeons.[1] Pericoronitis, caries, cystic lesions and periodontal problems are the most frequent causes that warrant removal of these teeth.[2,3] The surgical procedure may be followed by complications such as pain, swelling, bleeding and less commonly alveolar osteitis, nerve paresthesia/anesthesia and occasionally jaw fracture.[4]

To limit these serious consequences, National Institute of Clinical Excellence (NICE) in United Kingdom has defined a criterion for third molar surgery in 2000. It advocated removal of third molars only when they are associated with pathologies (recurrent pericoronitis, unrestorable caries, pulpal and periapical pathologies, cellulitis, osteomyelitis, cysts/tumors, internal/external resorption), impeding eruption of adjacent teeth, and resection or reconstructive surgical procedures.[5]

Pakistan has yet to define a standard protocol for third molar surgeries. Such a standard is necessary to prevent unnecessary third molar removal and its associated complications. This will lower health care costs and allow for better organization of the immense patient load in hospitals. The aim of this article is to establish the need for third molar removal guidelines.

METHODOLOGY

A total of 140 patients were referred for third molar removal to the General Hospital in Birmingham, England, in six months from November 2006 to April 2007. Majority of the patients were between the age groups 22-31 years and 32-41 years. Recurrent pericoronitis and gross caries were the most frequent causes of referral. Less common reasons included first episodes

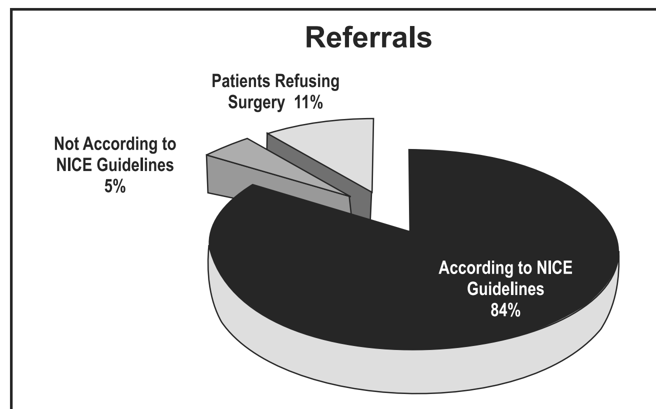
[1,3] Residents
[2] Prof & Head of Department of Oral Surgery, Islamic International Dental College/Hospital G–7/4, Islamabad

of pericoronitis, cystic lesions, periodontal lesions, fractured tooth, cellulitis, damage/risk to adjacent teeth and patient preferences. 49 teeth were removed using local anesthesia, 22 using local anesthesia and sedation and 47 under general anesthesia.

RESULTS

118 third molars that complied with NICE guidelines were removed. 15 patients fulfilling the criterion refused to have the surgery and 7 patients did not comply with the NICE guidelines. Only 5% of referral failed to fulfill the criteria for removal of third molars as set by NICE guidelines.

Sr No.	Procedure	No. of patients
1.	Removal under Local Anesthesia	49
2.	Removal under Local Anesthesia and Sedation	22
3.	Removal under General Anesthesia	47
4.	Discharge back to General Dental Practitioner (not complying with NICE guidelines)	7
5.	No Procedure (Patient refusing surgery)	15



DISCUSSION

Several studies now advocate removal of third molars only when it is beneficial to the patient.[6] Lopes et al[7] conducted a study in 1995 on 522 patients revealing that more than half of the patients did not have any clear indications for third molar extractions. The incidence of postoperative complications in patients who do not have clear indications for removal of third molar surgery were consistent with those who required extraction. Keeping this in account, most of the dentists in England have adopted NICE guidelines as evident by this study.

The American Journal of Public Health published an article in 2007[8] opposing prophylactic third molar extraction. According to this article 10 million teeth are extracted in the US every year at the cost of $ 3 billions. Almost every patient that undergoes surgery presents with multiple postoperative complications, 11000 with permanent damage to the inferior alveolar nerve. For two third of this patient population, the surgery is completely avoidable.

Being a developing country, Pakistan has a significant deficit of health care facilities and finances. It is essential to establish guidelines that will only allow for required procedures to be undertaken. Reducing the number of unnecessary surgeries will allow for reduced postoperative complications and more appropriate utilization of our resources.

RECOMMENDATIONS

National Institute of Clinical Excellence has carefully established and defined the protocol for third molars surgery. The guidelines are lucid and elaborate and can be conveniently implemented in our setting until we have our own guidelines according to our own needs. Presently, we are carrying out research on impacted mandibular third molars, which will facilitate the development of guidelines for removal of impacted mandibular third molars pertaining to our requirements.

CONCLUSION

Defining guidelines for third molar surgery is vital in preventing unnecessary surgeries, postoperative complications and organizing the patient load in hospitals.

REFERENCES

1 Singh H, Lee K, Ayoub AF. Management of asymptomatic impacted wisdom teeth. Br J Oral Maxillofac. Surg. 1996; 28:20-25

2 Von Wowern N, Nielsen HO. The fate of impacted lower third molars after the age of 20. A four-year clinical follow-up. Int J Oral Maxillofac Surg. 1989;18:277–80

3 Stathopoulos P. Cysts and tumours associated with third molar surgery: is prophylactic removal justified? J Oral Maxillofac Surg. 2011;69:405-08

4 Contar CM et al. Complication in third molar surgery: a retrospective study of 588 patients. med Oral Patol Oral Cir Bucal. 2010;15:74-78

5 http://www.nice.org.uk/article.asp?a=533. Accessed on April 19, 2011 at 9:08 PM

6 Haug RH, Perrott DH, Gonzalez ML, Talwar RM. The American association of oral and maxillofacial surgeons age related third molar study. J Oral Maxillofac Surg. 2005;63: 1106-14

7 Lopes V, Mumenya R, Feinmann C, Harris M. Third molar surgery: an audit of the indication of surgery, post operative complaints and patient satisfaction. Br J Oral Maxillofac Surg. 1995;33:33-35

8 Friedman JW. The prophylactic extraction of third molar: a public hazard. Am J Public Health. 2007;97: 1554-59