

IMPACTED THIRD MOLAR EXTRACTIONS-ARE WE FOLLOWING ANY RECOMMENDED GUIDELINES?

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ABSTRACT

Among the minor oral surgeries done by an oral surgeon and surgeries carried out in the department of oral and maxillofacial surgery all over the world third molar removal is one of the most frequent procedures done. 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 Ireland where third molars are extracted in accordance with NICE guidelines. This study was carried out to assess the compliance of general dental practitioners and oral surgeons to the NICE guidelines. It was noted that 90% of the patients referred for third molars extraction fulfilled the criteria set forth by NICE. A few modifications were carried out in the guidelines provided which were done under scientific evidence based knowledge i.e. Prophylactic extraction of impacted third molars. 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. It is suggestive that the governing authorities in Pakistan should also implement such guidelines for extractions of impacted third molars.

Key Words: *Third molars, removal, NICE guidelines.*

INTRODUCTION

The extraction of third molars is among the most common surgical procedures and is a cornerstone of the field of oral and maxillofacial surgery. Third molars have high incidence of impaction, and have been associated with the pericoronitis, caries of the distal surface of the second molar or of the third molar itself, certain types of cysts or odontogenic tumors, and primary or secondary dental crowding.

The impaction is defined in relation to the geometric angle of impaction such as mesioangular, distoangular, vertical and horizontal. Impacted third molar is also associated with many periodontal diseases especially the loss of periodontal attachment distal to second molar which is one of the sequel of the disease.⁴

There is an abundance of literature devoted to variables affecting extraction difficulty, pharmacologic therapies associated with removal, and postoperative complication rates.

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

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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.

Pakistan being developing country has yet to design basic necessary guidelines in health care services specially in field of dentistry and oral surgery. There is no standard protocol for third molar surgeries designed by any council in Pakistan or implemented by any regulatory authority in Pakistan. Most important advantage of having 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 and avoid serious complications. The aim of this article is to establish the need for third molar removal guidelines, or either implementation of NICE guide lines in Pakistan will be immense achievement.

METHODOLOGY

A total of 800 patients were referred for third molar removal to Smile dental practices 28 O’Connell Street, Dublin Ireland from 1st Jan 2010 to 1st June 2013. Study time period was 42 months.

Smile dental practice is a private dental setup in



Fig 1

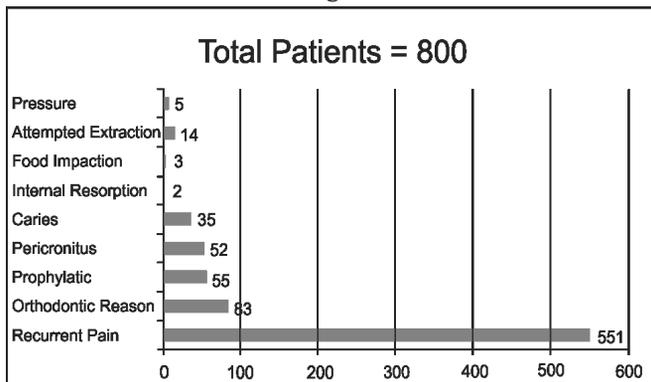


Fig 2

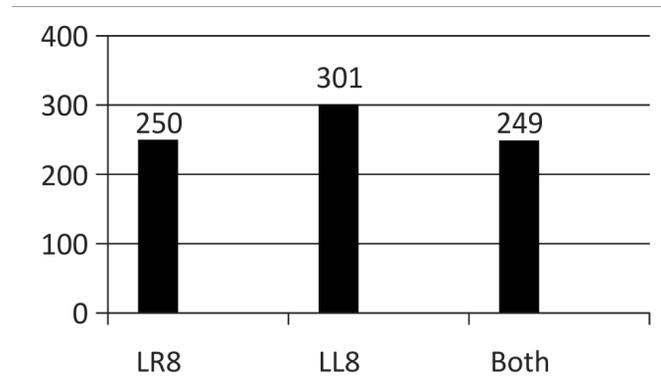


Fig 3

Ireland. To maintains the uniformity of the study all the surgeries were performed by one surgeon under same setup with assistance of one single dental nurse along the entire time period of study. Data collection was done using Microsoft Excel 2007 and analysis was later done using SPSS 17.

Consent before surgery was taken from all patients. Majority of the patients were from 3rd decade. With maximum age of 72 years and minimum age of 12 years .all cases were previously screened and inclusion was only done for patients who had no associated co morbid.

Total number of 418 females and 319 male patients reported to the dental clinic male to female ratio 319: 418 was seen and is shown in Fig 1.

Most frequent etiology for impacted third molar removal was recurrent pain other etiologies included caries,pain,orthodontic reasons,unerpted tooth,cyctic lesion, internal reportion food impaction, attempted extraction by other clinic previously, pressure and prophylactic.

Total number of extraction were 800 Left lower impacted third molars 250 right lower impacted third molars 229 both right and left impacted third molars 24985 patients had their impacted third molars removed in IV sedation Criteria for selection for IV sedation for such patients was

DISCUSSION

Third molars have been described as different from other teeth in the oral cavity. They have the highest rate of developmental abnormalities and, most importantly, are last in the eruption sequence.

In 2004, a review of the impact that NICE guidance was published in British Journal of General Practice, having over a range of clinical interventions suggested that NICE had no discernable effect on the management of patients with third molar teeth.

For the last ten years the recorded incidence of caries and its sequel, as an indication for removal, has increased from less than 10% to almost 30% of all patients requiring third molar removal.⁸ Over the last ten years the recorded incidence of patients having third molars removed due to dental decay has increased by over 200%.

Several studies now advocate removal of third molars when it is beneficial to the patient. Prophylactic extraction has been carried out regularly in many countries and has been a modification in the outlines given by NICE. We have carried 249 extractions bilaterally in total and 209 extraction was done prophylactically. Patients reported with one side extraction with either one of the etiology mentioned in the Fig 3 patient was offered extraction of asymptomatic opposite side tooth also such way patient was offered economical benefits as well certain packages were offered that saved him almost a quarter cost 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.

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. Bilateral Third molar extractions can be carried even under local anesthesia in the same setting.

For developing countries like Pakistan we should encourage our governing authorities to design certain guideline keeping the patient benefits of health as

well as low socio economic status and more number of pathologies associated with asymptomatic impacted third molar.

CONCLUSION

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

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