WISDOM BEHIND REMOVAL OF WISDOM TOOTH

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ABSTRACT:
Removal of third molars (wisdom teeth) remains one of the most common procedures and indications for referral to Oral and Maxillofacial surgeons. The treatment of impacted third molars that have neither symptoms nor disease is controversial. One school of thought is that these teeth should be extracted before they do become symptomatic and/or diseased. A second school of thought advocates retaining these teeth until such time when they show evidence of developing symptoms or disease. We conclude by suggesting that the decision to extract third molars seems most effective when made on a case-by-case basis that is tailored to each patient’s health status and access to professional oral health care.

Key words: Prophylactic removal, Third molar, wisdom tooth

INTRODUCTION:
When things cease to be a subject of controversy, it ceases to be a subject of interest. Both ignored and overblown controversies can result in public health damage. Prophylactic removal of asymptomatic wisdom tooth or third molar has been a subject of controversy and a topic of debate among clinicians and researchers worldwide.¹ Some of the clinicians strongly believe that the impacted third molars have no definitive role in the oral cavity except to be involved in the pathosis, hence these teeth are recommended to be surgical removed even in the absence of any associated pathology. It is recommended that non-functional wisdom teeth are best removed in teenagers and young adults.² This is sound preventive dentistry. On October 19, 2010, a press release by American Association of Oral and Maxillofacial Surgeons was issued entitled: “Conventional Wisdom about Wisdom Teeth Confirmed - Evidence Shows Keeping Wisdom Teeth May Be More Harmful than Previously Thought.” (www.aaoms.org/third_molar_news.php).³ While, other dental practitioners believe that the incidence of pathologies related to the impacted or unerupted third molars are very low and thus routine removal of asymptomatic impacted or unerupted third molars is questionable and therefore, not a good clinical practice. In fact, 50% of maxillary third molars classified as impactions are actually normal developing teeth and most of these will erupt with minimal discomfort if not removed prematurely. While, only 12% of truly impacted teeth are presented with pathological diseases like as cysts and damage to adjacent teeth. Cost and risk factors associated with prophylactic third removal also cannot be ignored.⁴⁻⁷ In present review article controversies in prophylactic removal of third molar has been discussed.

PROPHYLACTIC REMOVAL:
‘Prophylactic removal’ has been advocated as a means to prevent the late development or exacerbation of mandibular incisor crowding arguably attributable to the eruptive forces of third molars. They believe that it avoid the risks of pathological sequelae expected with the presence of partially erupted or impacted third molars.

Costs and risks:⁸⁻¹⁰
Third-molar surgery or the removal of the impacted third molars is a multibillion-dollar industry generating significant income for the dental practitioners, particularly oral and maxillofacial surgeons. It is driven by myths and misinformation that have been exposed before but that continue to be propagated by the profession. If the clinician is satisfied that a particular third molar is truly asymptomatic, then it is justifiable to seriously question its removal from the point of view of assessing direct and indirect (opportunity) costs. The accounting of such financial costs, as well as health risks, has caused questions to be asked about the continuing wholesale ‘slaughter’ of third molars.

Risk of retaining third molars:⁹⁻¹³
1. Pericoronitis with attendant symptoms.
2. Periodontal pocketing affecting the bone and posterior surface of the distal root of the second permanent molar associated with mesial impaction of the third molar.

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3. Orthodontic concerns about late development of dental arch crowding attributed to eruptive force of third molars.
4. Root resorption at the distal aspect of the second molar associated with third molar impaction.
5. Other less common conditions including cysts, tumours, cellulitis and temporomandibular joint dysfunction

Complications of Third-Molar Extractions 11,13,14
- Pain
- Swelling
- Trismus
- Hemorrhage
- Alveolar osteitis (dry socket)
- Periodontal damage
- Soft-tissue infection
- Injury to temporomandibular joint
- Malaise
- Transient or Permanent paresthesia
- Fracture of adjacent teeth/ mandible/ maxilla
- Sinus exposure or infection
- Anesthetic complications

CONTROVERSY REGARDING THIRD MOLAR REMOVAL5,7,9,13:
- 12% of impacted third molars are associated with pathology. This incidence is the same as for appendicitis (10%) and cholecystitis (12%), yet prophylactic appendectomies and cholecystectomies are not the standard of care. Then why shall we perform prophylactic third-molar extractions?
- Several authors give reasoning that Pressure of Erupting Third Molars may cause Crowding of Anterior Teeth. But now a days authors believe that Third molars do not possess sufficient force to move other teeth. They cannot cause crowding and overlapping of the incisors, and any such association is not causation.
- Many researchers have strong belief that The Risk of Pathology in Impacted Third Molars increases with Age but there is no strong evidence of a significant increase in third-molar pathology with age.

DISCUSSION:
Many health care purchasers and third-party payers have become concerned about the escalating costs of health care. This has prompted a reassessment of the appropriateness of third molar surgery.” The appropriateness of a health service considers whether the procedure makes a difference and whether the treatment should be available to everyone or only certain subgroups of the population. Available literature has not really challenged the therapeutic effectiveness of third molar removal. Rather, attention has been focused on the appropriateness of the preventive removal of impacted third teeth that are not associated with any pathology. This procedure has been inaccurately labeled as the prophylactic removal of asymptomatic third molars. Critics have identified this procedure as inappropriate and unnecessary. 6-10

One school of thought is that these teeth should be extracted before they do become symptomatic and/or diseased. A second school of thought advocates retaining these teeth until such time that they show evidence of developing symptoms or disease. Both groups recognize that when surgical intervention is employed, complications such as pain, swelling, alveolar osteitis, periodontal problems, TMJ dysfunction, nerve involvement, sinus communication, and financial stress are not uncommon. Proponents of surgical extraction are of the belief that many asymptomatic and disease free impacted teeth eventually do become symptomatic and/or diseased, and do so when the patient is older. At that point in time, surgical extraction of these teeth becomes necessary and results in an increased morbidity and complication rate of consequences common to the procedure. They would prefer that their patients experience these problems at a younger age when the complications are less likely to be as severe or permanent. 5,8,10,13

Proponents of retaining and monitoring these teeth are of the opinion that the status of these asymptomatic and disease-free impacted teeth may never change and therefore never require surgical intervention. Furthermore, they are of the belief that surgical intervention will not necessarily produce increased morbidity and complication rates in all patients, even if they are older. 15,16 They also believe that the increased complication rate and morbidity experienced by some of the older surgical patients do not justify the routine removal of all asymptomatic, disease-free impacted third molars at an early age. Proponents of each school of thought point to studies to support their therapeutic approach. It is not the intent of this paper to advocate one approach or the other; but rather to present the reasoning behind them, and the studies supporting them. Ultimately, the practitioner must use his/her academic knowledge, personal clinical experience, and input from an informed patient to decide the strategy for treatment of asymptomatic, disease-free impacted teeth. It is the opinion of this author that more studies must be done, especially with regard to surgically related TMJ consequences that occur with younger patients undergoing extraction of impacted teeth, and the influence that periodontally diseased third molars may have on systemic conditions. 15-17 We hope that future studies will be helpful to evaluate risk/benefit ratios of each treatment strategy and further clarify uncertain answers as to how the best interests of the patient will be achieved when treating this controversial issue.
CONCLUSION:
We cannot reliably predict whether impacted third molars will develop any pathological changes. The decision-making process, about prophylactic removal versus the retention of asymptomatic impacted third molar teeth, should be based on the best available evidence and must be combined with clinical experience. The key element of judgment in cases of prophylactic surgical removal should first be a patient’s safety risk-benefit analysis to avoid possible iatrogenic injuries. In addition, patients’ perspectives, values, and attitudes should also play a prominent role. The patient must be told about all of the possible options and must be involved in the decision.

REFERENCES: