

Impacted Third Molars in Healthy Senior Citizens: An Overview of Management Options

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Abstract

The increasing lifespan and trend toward retention of third molars has led to a growing population of older adults with impacted third molars. While traditionally managed through early prophylactic extraction, contemporary evidence suggests that asymptomatic impacted third molars in healthy elderly patients may be safely monitored or managed conservatively. However, when intervention becomes necessary, advanced age presents unique surgical challenges, including prolonged healing, increased complication rates, and higher anesthetic risks. This review examines the current evidence on pathology prevalence, risk stratification, surgical considerations, and alternative treatment approaches, including coronectomy and watchful monitoring strategies, in the geriatric population.

Keywords: Impacted tooth, third molar teeth, geriatric dentistry, coronectomy.

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INTRODUCTION

The management of impacted third molars in senior citizens represents an evolving clinical challenge as the global elderly population continues to expand. In individuals over 65 years of age, approximately 19% retain at least one third molar, with many remaining asymptomatic for decades [1]. Historical practice favored prophylactic removal in young adulthood; however, contemporary evidence has revealed that considerable third molar pathology develops later in life [2]. The decision to extract versus retain becomes more complex in elderly patients due to diminished physiological reserve, increased medical comorbidities, and elevated surgical risks [3]. Understanding age-specific considerations enables clinicians to provide individualized, evidence-based recommendations for this growing demographic group. Therefore, this narrative review provides a concise summary of the available management options for impacted third molars in healthy senior citizens.

Pathology and Natural History

Retained third molars in elderly populations are associated with a significant pathologic burden. Among individuals over 65 years of age, dental caries affect approximately 80% of retained third molars, while periodontal pathology occurs in 33% [1]. Periodontal attachment loss exceeding 3 mm appears in 68% of senior patients with third molars. Importantly, only 21% of older adults with retained third molars remain completely disease-free [2]. Adjacent second molar pathology is another concern, with third molar eruption serving as a documented risk factor for distal caries and periodontal disease in neighboring teeth [4]. Furthermore, acute pericoronitis demonstrates age-dependent severity, with women over 61 years of age showing significantly elevated odds ratios for acute inflammation compared to those aged 41-50 years [5]. Deep impaction, ankylosis, and cystic development increase with age, complicating future extraction attempts [6].

Surgical Risks and Complications

Age is an independent predictor of postoperative complications following third molar surgery. Patients over 25 years of age demonstrate higher overall complication rates, with the risk escalating substantially in those over 65 years of age [7]. Older adult patients exhibit significantly elevated modified Charlson scores and ASA classifications, reflecting a greater systemic disease burden [3]. Specific complications, including prolonged healing, delayed recovery, and incomplete neurosensory recovery following inferior alveolar nerve injury, increase with advancing age [6]. Older patients require longer operative times owing to denser bone, more complete root development, and higher ankylosis rates [8]. Perioperative management must address antithrombotic and antiresorptive medications, which are common in this population and elevate the risks of bleeding and osteonecrosis [3]. Postoperative infection rates show age-related increases owing to impaired immune function and diminished healing capacity [9].

Conservative Management: Watchful Monitoring

Watchful monitoring is a viable alternative to prophylactic extraction for asymptomatic, disease-free, impacted third molars in healthy seniors. A 2020 Cochrane systematic review found insufficient evidence to support the routine prophylactic removal of asymptomatic wisdom teeth [10]. Cost-effectiveness analyses have demonstrated that watchful monitoring strategies are more economically favorable than prophylactic removal under general anesthesia,

particularly in the Australian healthcare context [11]. This approach requires regular clinical and radiographic monitoring to detect emerging pathologies early. For patients who maintain good oral hygiene with accessible dental care, observation provides an acceptable risk-benefit profile [12]. However, clinicians must educate patients regarding the potential for later-life pathology development and the technical challenges posed by delayed extraction.

Coronectomy as a Risk-Reduction Strategy

Coronectomy, which involves the intentional retention of tooth roots following crown removal, offers a nerve-preserving alternative for high-risk cases. This technique is particularly relevant for patients over 40 years of age who face an elevated neurosensory injury risk [13]. Meta-analyses confirm coronectomy significantly reduces inferior alveolar nerve injury risk by approximately 84% compared to complete extraction [14]. Recent studies in older adults have shown that coronectomy produces favorable outcomes, with manageable postoperative quality-of-life impacts and minimal long-term complications [15]. Secondary intervention rates are approximate 2-11%, with root migration occurring in 13-85% of cases without causing clinical problems [16]. Coronectomy is particularly suitable for deeply impacted mandibular third molars with radiographic indicators of nerve proximity in elderly patients who are unable to tolerate prolonged surgery or significant complications. A summary of management options is provided in Table 1.

Table 1: Summary of management options of impacted third molar in elderly population

Management Option	Indications	Advantages	Considerations
Watchful Monitoring	Asymptomatic, disease-free	Avoids surgery, cost-effective	Requires compliance, regular monitoring
Extraction	Symptomatic, pathologic	Definitive treatment	Higher complications in elderly
Coronectomy	High nerve injury risk	Nerve preservation	Retained roots, potential re-intervention

CONCLUSION

The management of impacted third molars in healthy senior citizens demands individualized clinical decision-making, balancing the pathology risk against surgical morbidity. While significant disease prevalence exists in elderly patients with retained third molars, prophylactic extraction carries substantial age-related complications. Watchful monitoring provides appropriate conservative management for asymptomatic cases in compliant patients. When intervention becomes necessary, careful preoperative assessment, appropriate surgical technique selection including coronectomy consideration, and comprehensive perioperative management optimize outcomes. Clinicians should engage elderly patients in shared decision-making by discussing the natural history, surgical risks, and alternative approaches. Future research should establish

evidence-based monitoring protocols and refine risk-stratification tools for this unique population.

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