

Coronectomy? A case report following coronectomy of a ‘high-risk’ mandibular third molar

Précis: Coronectomy presents as a viable alternative surgical option for the removal of mandibular third molars that are at high risk of inferior alveolar nerve damage.

Abstract

Background: The surgical removal of a mandibular third molar (M3M) is a common procedure performed by oral and maxillofacial surgeons, oral surgeons and general dental practitioners. Apart from risks such as pain, swelling, bruising, bleeding, trismus, alveolar osteitis, postoperative infection and damage to adjacent structures, which are common to all surgical extractions, M3M removal includes the risk of permanent or temporary damage to the inferior alveolar nerve (IAN) or the lingual nerve. IAN damage can significantly impact on quality of life (QoL) due to an altered sensation of the lip and chin area. As such, the alternative surgical option of coronectomy, which is the sectioning of the crown from the tooth and deliberate retention of the roots, can be offered to high-risk cases to avoid IAN damage.

Case presentation: A 36-year-old female patient was diagnosed with recurrent pericoronitis of her left M3M. Her left M3M was partially erupted and horizontally impacted, with bulbous roots that were in close proximity to the IAN. Due to a higher risk of IAN damage, she underwent a coronectomy procedure of her left M3M instead of a complete removal. She experienced typical postoperative pain and swelling, but no other complications such as altered nerve sensation were reported. The surgical site was healed with full mucosal coverage after 12 weeks.

Conclusion: Coronectomy provides a viable alternative surgical option for removal of M3Ms that are at high risk of IAN damage. This is due to the significant reduction of risk of IAN damage and low incidence of failure.

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