

Letters to the Editor

Coronectomy of third molars: concerns when the roots of teeth surround the inferior alveolar neurovascular bundle

Sir,

Several papers - including both research articles and letters to the editor – have been published recently, on the topic of coronectomy, which is aimed at protecting the inferior alveolar nerve (IAN) during the removal of teeth.¹ It is also well-known that the vast majority of residual roots show a definite migration pattern (on average up to ~3.5 mm, mostly within the first 24 months).² After 1 year, 53.2% to 62.9% of the cases that started out with superimposition ended up

showing none.³ In contrast, with adjunctive guided bony regeneration, minimal root migration can be seen (1.1 mm compared with 3.5 mm). A recent review concluded that reoperation is necessary in about 5% of the cases, mainly because of symptoms related to exposure of the roots.⁴ In addition, a migrating perforated root, entrapping the IAN, can cause neurological disturbances several years later.⁵

When the nerve is entrapped (Fig. 1), and coronectomy is done - in my opinion - the following concerns should be raised (Fig. 2):

First, would root migration cause any later neurological complications as a result of nerve dislocation, or would the IAN be stretched slowly in a manner similar to that when it

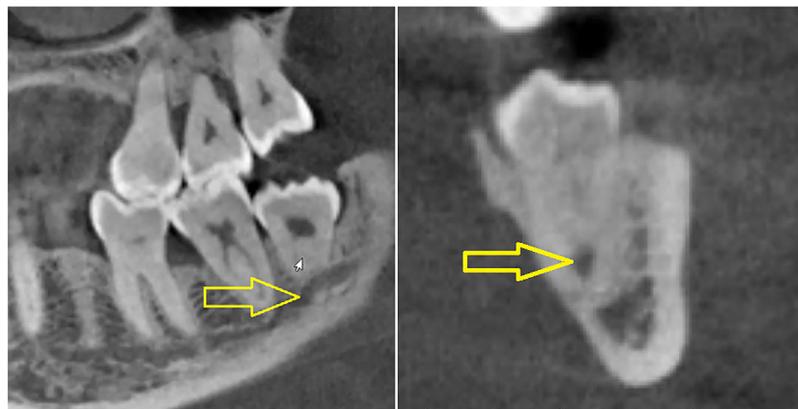


Fig. 1. Since the panoramic radiograph showed specific high-risk signs namely, “darkening of the root” and “diversion of the inferior alveolar canal”, a further cone-beam computed tomographic investigation was indicated. The sagittal (left) and coronal (right) slices of the cone-beam computed tomogram show clearly an interradicular canal course (yellow arrows).



Fig. 2. Cropped images of the panoramic radiographs show the intraoperative control during the coronectomy (left) and only two months later, the visible migration of the roots (right). The white lines are aiming reference lines.

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is gradually stretched and elongated without complication in mandibular distraction osteogenesis?

Secondly, when the root migrates without deficit to the IAN, but later needs to be removed because of root eruption and exposure, does it mean that the IAN-endangering removal was only delayed?

Thirdly, when a “coronectomised” root is removed several years later in a different practice, maybe even in a different country, will their risk-assessment evaluate the circumstances correctly? Is cone-beam computed tomography recommended for migrated root removals that are still super-imposed?

Finally, should we use guided bony regeneration routinely for such cases to reduce migration of the roots appreciably?

It would be interesting to read experts’ opinions and experiences, or study results concerning such cases, to help assess what to expect when the IAN is located inter-radicularly, and surrounded completely or almost completely by the tips of the roots. Or is it all only theoretical?

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient’s permission

The study was approved by the Regional and Institutional Research Ethical Committee of University of Pécs [7920/PTE/2019] and the patient’s consent was obtained.

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Efficacy of a plastic clothes peg in the management of trismus

Sir,

Trismus, or restricted mouth opening, is a well-documented complication after dentoalveolar or maxillofacial surgery that is daunting not only for the patient but also for clinicians to treat. It is usually caused by inflammation and spasms of the masticatory muscle postoperatively, or unyielding scarring. The limited opening of the mouth may cause problems with chewing, speech, and oral hygiene, and may cause pain.¹

Usually trismus will resolve with time, and treatments include the use of physical therapy, active jaw exercises, the application of warmth, and medications such as nonsteroidal anti-inflammatory drugs, muscle relaxants, and steroids.² A number of techniques include the use of commercially-available jaw-stretching tools such as TheraBite® (Atos Medical AB),³ less expensive stacked tongue blades, or tapered corks. Persistent trismus with an unknown cause may also be treated surgically with bilateral coronoidectomies.⁴

We have successfully used plastic clothes pegs (Fig. 1) for active jaw exercises in a patient who had postoperative trismus after the extraction of a third molar. The pegs were inserted between the teeth to increase the interincisal distance until slight pain was felt. The exercises were done for about two minutes every two hours to increase the interincisal distance and to stretch the muscles of mastication, and normal mouth opening was achieved within ten days (Fig. 2). The advantages of using clothes pegs are that they are cost-effective, improve compliance, and do not require multiple visits to the clinic. In a country such as India, where ankylosis



Fig. 1. Plastic clothes peg.