

the region of the diastema, and inserting into the palatal mucosa.

Maintenance of orthodontic closure of a significant diastema would require a palatal bonded retainer regardless of whether a frenectomy has been undertaken, owing to the fact that such space closure is predominantly unstable. As such, there is no automatic requirement for an additional frenectomy.

Furthermore, undertaking a frenectomy too early and removing the interdental fibres leads to scar tissue formation, generating an obstacle which may lead to difficulties in subsequent diastema closure.

Therefore, frenectomy is almost always contraindicated prior to orthodontic treatment. When a frenectomy is indicated, the timing should be agreed between the orthodontist and surgeon.

The frenectomy may be undertaken when the incisor teeth are orthodontically aligned and space closure is imminent or partial space closure has been undertaken, ie during orthodontic treatment.

As such, the surgeon has interdental space to carry out the procedure safely, and space closure may be instigated or resumed immediately following surgery. Theoretically, the subsequent scar tissue formation may help to keep the diastema closed.

However, it is imperative to point out that as stability remains an issue, a bonded retainer will still be indicated. Therefore, the presence of a labial frenum with interdental fibres passing through to the palatal mucosa is not, per se, an indication for a frenectomy.

The principal indications for an upper labial frenectomy are the presence of a low (inferiorly attached, towards the gingival margin), thick and fleshy frenal attachment, which may be unattractive, a potential obstruction to maintenance of good oral hygiene, or causing recurrent trauma with tooth brushing, and/or tethering of the upper lip by the frenum, leading to hypomobility of the philtrum of the upper lip. These situations are uncommon.

The maxim remains for all practitioners – when in doubt, refer. However, it is worth repeating that the simple presence of a labial frenum, or a maxillary dental midline diastema, should not be a habitual reason for referral or an unconsidered indication for frenectomy.

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Coronectomy

Coronectomy & CBCT – A marriage of convenience!

Sir, cone beam computed tomography (CBCT) is an established radiographic investigation for accurate delineation of the inferior dental nerve (IDN) in high-risk mandibular third molars (M3M). In recent times, it is commonly used as part of the preoperative work up and risk assessment for coronectomy procedures.

Coronectomy is 'deliberate surgical removal of the dental crown and vital tooth retention to prevent iatrogenic damage to associated vital structure(s)'. In the case of M3M teeth, the proximity of the IDN can be radiologically assessed using a simplified risk assessment tool based on various criteria proposed in the past (Table 1).^{1,2}

Cross-sectional imaging such as CBCT and medical CT may be required to further delineate the intimate structures and assist in surgical planning.

Occasionally, teeth found to be intimate to IDN on plain radiographs may appear well separated on the CBCT. We feel that doing a coronectomy in these cases is not justified as there is no higher risk to the nerve in the first place. Coronectomy is to be considered only if benefits outweigh its risks in management of high-risk M3M.

A retrospective study of 80 patients booked for coronectomy procedure was conducted in our unit. All patients had an orthopantomogram (OPT) radiograph, following which 73% (58/80) patients had further CBCT assessment.

Based on the risk assessment tool, the imaging was evaluated to assess whether surgeons are using CBCT correctly while planning coronectomy.

This small cohort study demonstrated that only two thirds (66%) of the booked patients satisfied the criteria for the coronectomy procedure.

Slightly more than a quarter of these patients (n = 22) had only OPT imaging as part of radiological assessment. More than two thirds of these patients (68.2%) were booked to have a coronectomy in spite of well separated M3M and IDN.

Furthermore, in patients who had CBCT assessment, 21% (n = 12) were not adequately risk assessed in spite of availability of cross sectional imaging. This could have been due to a lack of general consensus in the use

Table 1 Radiological risk assessment of M3M (any one)

1	Darkening of roots	
2	Deflection of roots	
3	Narrowing of roots	
4	Narrowing of canal	
5	Interruption of canal	

of CBCT for assessment of impacted M3M and understanding of the indications for coronectomy.

Hence, we recommend a standardised coronectomy criteria to assist clinicians in making correct and informed decisions.

The authors wish to highlight the importance of justifying investigations/procedures to prevent harm and improve surgical outcomes. Additionally, coronectomy should only be performed in select cases where complete extractions may cause more harm than benefit to the patient.

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1. Rood J P, Shehab B A. The radiological prediction of inferior alveolar nerve injury during third molar surgery. *Br J Oral Maxillofac Surg* 1990; **28**: 20–25
2. Renton T. Notes on Coronectomy. *Br Dent J* 2012; **212**: 323–326.

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