RICHMOND
ENDODONTIC CENTRE

A 9MM RARE BIRD

JUN
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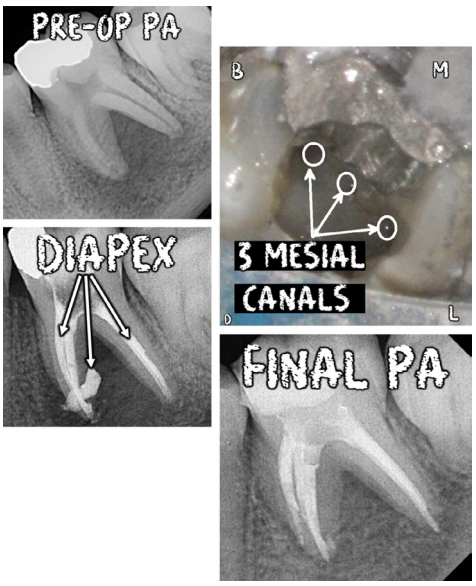

A stoma in the gingival crevice is a diagnostic challenge; it could be due to an endodontic lesion, a vertical root fracture, a developmental groove, or a primary periodontal lesion. Attaining a definitive diagnosis is a process of elimination and below is a summary of my approach:

- A periodontal defect is not likely because of the absence of a broad coronal opening and generalised alveolar bone loss
- The buccal surface of the mesial root of a mandibular first molar is a highly unusual location for developmental defect
- The negative response to pulp vitality testing is highly suggestive of a lesion of endodontic origin as well as a vertical root fracture
- A vertical root fracture is less likely because of a lack of mobility, no history of trauma, and a dearth of overt signs of wear on any teeth

A lesion of endodontic origin cannot be discounted merely because the defect is 9mm deep and narrow. Although useful, a cone beam CT evaluation may not be definitive as the pattern of bone loss could be similar for both conditions and small fractures are not distinguishable even with the best high-resolution devices. CBCT images would afford a more detailed scrutiny of the extent of the internal resorption in the apical portion of the mesial root. Nevertheless, the patient declined the '3-D scan' and chose to proceed with a diagnostic access and monitoring of the tooth over an extended period.

No evidence of a vertical root fracture was discovered during treatment. Interestingly, there were five canals, in this tooth, with three in the mesial and two in the distal root.

Over twelve months, the canals were re-medicated thrice with Diapex. The tooth responded well with an expeditious resolution of symptoms and gradual hard tissue healing. With the elimination of the narrow probing defect, frank evidence of hard tissue healing, and over one year of asymptomatic function the diagnosis of pulp necrosis with a chronic abscess sans vertical root fracture was confirmed. It was deemed appropriate to complete the endodontic treatment and proclaim a favourable long-term prognosis for this tooth. At any time during the preceding fourteen months, if progress proved elusive the possibility of a fracture would have been revisited.

Common things occur commonly and a 9mm narrow probing defect on a heavily restored mandibular first molar with a necrotic pulp is almost pathognomonic of a catastrophic vertical root fracture. Yet condemning this tooth as utter flotsam is diagnostically parsimonious. Tackling the diagnostic challenge it posed brings to mind a quote from Walt Disney, "the flower that blooms in adversity is the rarest and most beautiful of all". The radiographic aesthetics of the obturation are not particularly spellbinding but I am perhaps more proud of this case than most. "The rare moment is not the moment when there is something worth looking at, but the moment when we are capable of seeing", Joseph Wood Krutch.

Regards,

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