Clinical management of mandibular incisors with 2 separate canals and foramina

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I. Introduction

Successful endodontic therapy depends on the practitioner's ability to find, clean, shape, and seal all the canal system. In mandibular incisor teeth, the prevalence of two canals has been reported to be from 11.5 to 44.1%. But it is difficult to find the lingual canal in small mandibular incisor teeth without thorough understanding of root canal anatomy. The methods can be used for the lingual canal are the careful interpretation of the preoperative radiograph, manual exploration with endodontic file or explorer, the use of microscope.

After finding two canals, the practitioner should attempt to determine whether a wall of denitne separated two distinct canals or whether the two canals were actually connected by an isthmus of pulp tissue. This case report presents the root canal treatment of 2 separate canal and foramina in mandibular incisors in 2 patients.

II. Case Presentation

- < Case I >
- 1. Sex/age: M/21
- 2. Chief Complaint (C.C): Crown fracture on #31, 32, 41
- 3. Past Dental History (PDH): N. S
- 4. Present Illness (P.I): Per(++), mob(+) on #31, 32, 41
- 5. Impression: Complicated crown fracture on #31, 32, 41
- 6. Tx Plan: Endodontic treatment on #31, 32, 41
- < Case II >
- 1. Sex/age: M/68
- 2. Chief Complaint (C.C): Swelling on #31, 32
- 3. Past Dental History (PDH): Incomplete root canal tx. on #31, 32
- 4. Present Illness (P.I): Sinus tract on #31, Per(+), mob(+) on #32, 31
- 5. Impression: Apical periodontitis on #31, 32, 41
- 6. Tx Plan: Endodontic retreatment on #31, 32, Endodontic treatment on #41

III. Conclusion

Although the incidence of two separate canals was low, it is important to be aware that such cases exist, particularly in teeth with a large labio-lingual crown width, and to attempt to find the lingual canal.