Journal of Specialist Dentistry

Developing Dental Expertise

Editorial Board

A warm welcome from the Editor

Dr Massimo Peru, BDS, MSc Endo

Welcome to the inaugural edition of the Journal of Specialist Dentistry. We are delighted to introduce this quarterly publication, available both in hard copy and on line.
The aim of the JSD is two fold, first to give our readers an interesting insight into complex specialist procedures, whilst also providing helpful and practical guidance on how to undertake cutting edge procedures in each of the specialisms. Our contributors are specialist clinicians, providing relevant and up-to-date information for GDPs and other specialists alike. We are delighted to work in conjunction with our partners at the Chiswell Green Specialist Dental Centre, a centre of excellence in Hertfordshire, boasting some of the UK's top specialist dentists.

Best wishes,
Dr Massimo Peru

SMILE AWARDS 2009 · Dentistry Awards · Private Dentistry AWARDS 2008

Chiswell Green Dental Centre

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Endo Report: First Lower Molar With Five Canals.

Dr. Claudio Peru discusses ways to discover difficult accessory canals.

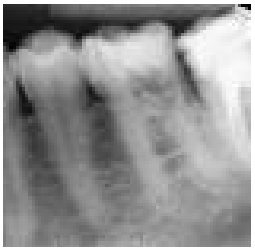
Introduction

This case report presents the endodontic treatment of a first mandibular molar with five canals, of which three were located in the mesial and two in the distal root. The study highlights the importance of a good knowledge of root canal anatomy, the exploration of the pulp chamber floor, and the use of the operative microscope to locate accessory canals.

Case Report

A 39-year-old Caucasian man was referred from his general practitioner to our endodontic surgery for evaluation and treatment of tooth No. 36 (LL6). The medical history was unremarkable. The patient presented with a history of throbbing pain for 3 days, and complained of lingering symptoms to cold stimuli from the lower left quadrant of his mouth, which he tried to reduce using analgesics. The clinical examination revealed no swelling, lymphadenopathy, or other significant findings extraorally. Intraorally, no erythema, swelling, or sinus tract was noted. The LL6 was restored with a composite filling. The tooth was not tender to percussion, and thermal testing with Endo-Ice® (The Hygenic Corporation) elicited lingering, sharp and severe pain. Radiographic examination revealed no periapical radiolucency associated with tooth No. 36. Recurrent caries was noticed on the distal surface of this tooth. A diagnosis of irreversible pulpitis was made. Treatment options were discussed with the patient, and informed consent was obtained.

Under local anesthesia and rubber dam isolation, the carious lesion was excavated, and an access cavity was made. Three canals were located in the mesial root (mesio-buccal, middle- mesial, mesio- lingual) and two in the distal root (disto-buccal and disto-lingual). Working lengths (WL) were determined using the apex locator. The canals were coronally pre-flared with ProTaper® SX (Dentsply Tulsa Dental Specialties). WL was determined with an ISO size 10 K-file (Dentsply Tulsa Dental Specialties) and the Root ZX® apex locator (J. Morita USA Inc.). A glide path was then established with K-Flexofiles® sizes 15 and 20.



Cleaning was performed with 3% NaOCl, which was ultrasonically activated with an IrriSafeTM tip (Satelec®) several times throughout the procedure. The ultrasonic activation of the irrigating solution results in more effective removal of organic tissue, debris and planktonic bacteria. Shaping was done with ProTaper files S1, S2 and F1, F2 and F3 in each one of the canals creating a sufficient taper. An ISO size 10 K-file was used to maintain patency throughout the entire treatment. After the canals had been shaped, they were rinsed with 17% EDTA for 3 minutes.

A continuous rinse with 5 ml of 17% EDTA, for 3 minutes efficiently removes the smear layer from root canal walls. (Mello et al 2010). A final rinse was performed with 3% NaOCl and chlorhexidine 2%. The canals were dried with paper points (Roeko).

Obturation was performed with a warm vertical compaction technique using ProTaper gutta-percha cones. The System BTM needle was taken 4 mm short of WL into the canal to fill the apical 4 mm. The coronal parts of the canals were backfilled using the Obtura® 2 syringe SybronEndo). AH Plus® (Dentsply Tulsa Dental Specialties) was used as a sealer. The root canal orifices were sealed using glass ionomer cement (ChemFilTM Molar [Dentsply]), and a core of composite resin was built using Core.XTM (Dentsply).

Final radiographs were taken, and the patient was sent home with instructions regarding possible post-operative discomfort and a prescription for 400 mg ibuprofen.

Conclusion

Good knowledge of root canal morphology and configuration is required by the clinician. The existence and location of accessory canal orifices requires a clinical evaluation of the pulp chamber floor. The use of the dental operating microscope is an excellent clinical resource to locate, negotiate, disinfect and seal the root canal system.

Minimally invasive surgical techniques in the management of gingival recession defects

Dr Rajiv Patel Specialist Periodontist

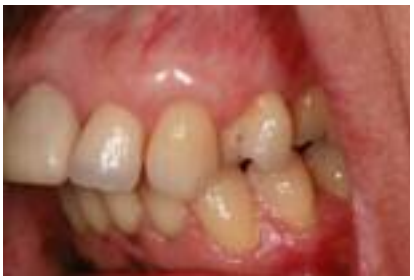
Gingival recession is caused by a combination of factors; an anatomical predisposition and an inflammatory trigger.

In normal anatomy, the roots of the teeth are surrounded by the alveolar bone and the bone is subsequently covered by gingiva and oral mucosa. Where gingival recession has occurred, the roots of the teeth are either too big relative to the width of the bone or positioned at the edge of the alveolar housing (and sometime through it). This means that very thin or possibly no bone would be covering the roots.

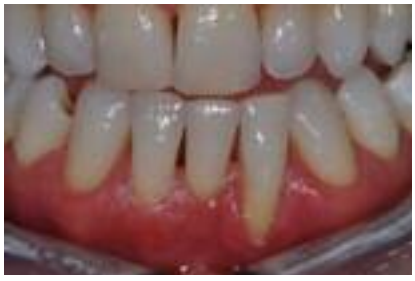
In this scenario, if inflammation were to be induced, the bone would quickly resorb. As the bone surrounding the tooth starts to resorb, the overlying gum follows the bone, exposing the root of the tooth. Inflammation of the gums may commonly occur by either 'over-brushing' the gums (causing a traumatic inflammation) or by 'under-brushing' (leaving bacteria at the gum margin which in turn induces inflammation). Therefore it is vital that the first step in managing gingival recession should be to ensure an atraumatic but effective brushing technique is used.

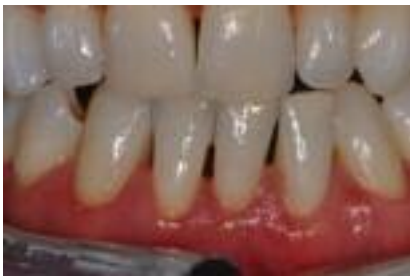
Once this has been achieved, if the recession defects are of anaesthetic concern, they can be predictably managed using minimally invasive surgical techniques. A tunnel or envelope is prepared apically and laterally to the recession by split thickness incisions through the gingival sulcus, detaching the gingivae from the underlying bone. A connective tissue graft from the palate can be placed between the detached gingivae and the bone to help thicken the tissues. Finally the gingivae and mucosa can be coronally advanced at time of suturing.

Root coverage of the upper left canine and first premolar teeth.

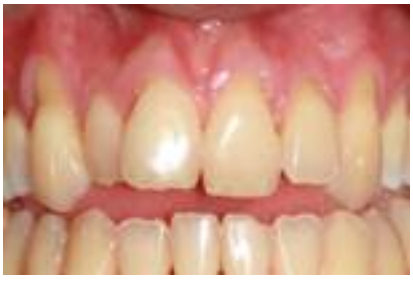


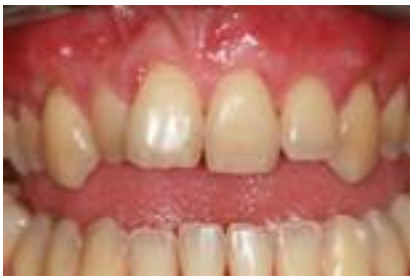
Root coverage of the lower left lateral incisor tooth.





Root coverage of multiple recession defects affecting the upper left and right canine teeth, upper left central and lateral incisor teeth.





Upcoming CPD Events

As part of Chiswell Green Dental Centre's committal to dental excellence we periodically organise evening seminars on different dental related subjects. The seminars are free of charge and valid for two CPD hours. **To register for your place please contact reception on 01727 800372 or email on info@chiswellgreendental.co.uk** Registration with refreshments starts at 6.30pm and the course begins at 7pm.

The next available seminars will be:
Endodontics 7th Oct, 21st Oct, 11th Nov 2015
Periodontics 13th Jan, 17th Feb 2016
Implants 30th Sept, 11th Nov 2015

Hands on courses are currently being organised please call to register your interest 01727 800 372. Prices TBC

Lunch & Learn

Book a "Lunch & Learn" session. We can visit you or you are welcome to bring your team to us. Let us show you the practice and give you a quick overview of the different treatment options available to your patients. We will provide a light lunch with refreshments. Just let us know how many members of your team will attend and each person will receive training worth 1 CPD point. A certificate will be issued.

If you would like to participate in these sessions please email info@chiswellgreendental.co.uk or call us on 01727 800372 for more information.

Private referral form

Practice and referring dentist details

Referring practice.....
Practice address.....
.....
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Referring dentist details:

Patient details

Patient's name.....
Patient's address.....
Town/City.....Post code:.....

Male/female.....
Date of birth.....
Home telephone.....
Mobile.....

Treatment required:

Restorative	Endodontics	Oral Surgery
Implants	Fixed Prosthodontics	Facial rejuvenation
Implants placement only	Removable Prosthodontics	Pedodontics
Periodontics	Orthodontics	Opinion only

Reason for referral/provisional diagnosis.....
Treatment carried out to date.....
Medical and dental history.....
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