Some sensible Tips and Messages on Prosthodontic management of the RCT’d Tooth

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Hands – On Session – Northwick Park Hospital
RCT’d tooth – Friday 1st May 2015
Hopefully this session will help you avoid this type of problem (early unexpected failure with POP)
Important Instruments & Kit

• Spiral fillers
• Gates Glidden Burs, Dental Amalgam, Matrix Bands
• Para post kits - cements
• Fine amalgam or resin pluggers
• Crown preparation burs
• Light curing
• Reciproc R25, R40 & R50
Practical Task 1 - Endodontic Rx

• We need a Root filling within the teeth we place posts (life like)
• For the Nayyar Core you will need to open up a correct the access cavity and use GGs to flare out the coronal aspects of the root canals
• We are going to use Reciproc – to allow quick RCT
• I have Janice from QED here to help us.
• I want you all to have to have experience of removing GP when doing your Post-canal preparations
• Place extracted teeth in putty
Single file systems

- Reciprocation technology
- Single file systems
- A defined back and forth movement as oppose to continuous rotation
- Most popular systems are *Wave One* (DENTSPLY) and *Reciproc* (VDW)
Reciprocation – an alternating back-and-forth movement

CW and CCW movements determine amplitude of reciprocation
- Instrument is first driven in a cutting direction and then reverses to release the instrument.
- Several reciprocating movements complete one 360 degree rotation.
- The angle in the cutting direction is greater than the angle in the reverse direction.
- Angles set in the motors

Need a motor that reciprocates
Reciproc Technique

- Access cavity/ straight-line access
- EWL from rad
- Irrigate access cavity
- Select instrument R25, R40 or R50
Introduce instrument into orifice
Press foot pedal when instrument at orifice
Push on the peck
In and out ‘Pecks’

- Slow in-and-out pecks
- 3mm movements
- “3-pecks and out!”
- 1 in-and-movement = 1 peck
• Remove instrument and clean/inspect
Simulation preparation of MB2
Practical Task 1 - Endodontic Rx / Re-Rx

• Have a play a reciprocation file – Reciproc (sizes #25, #40 & #50)
• I want you to place a RCT or the single root you place a post in
• Today is not about endodontics – but hopefully you all realise that Endo is essential for Posts / Nayyar cores
• Janice and I will help you – it is really easy & quick
Practical Task 2 - Nayyar Amalgam
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- Place extracted teeth in Putty
- Build up a Nayyar Amalgam Core for a posterior tooth
- Be sure that the tooth is appropriately endo-coronally prepared for the restoration – root filling must be cut back well below amelo-cemental junction
- Be clear why you are using a Nayyar core and why it will work
- Make sure that you are using instruments that allow packing of the amalgam into tops of the root canals
- Use matrix band - carve up to full contour – go for it lets see what you can do
Practical Task 3 – Nayyar Resin

• Once you have done one in amalgam happy for you to have another go with resin
• Again think about how you will avoid voids - particularly between the RCT and the under-surface of the restoration
• Full-contour build-up and lets see what you can all do
Practical Task 4 – Indirect post preparation

• Cut back your GP (50 – 66% of the root length)
• Length of post depends on the height of ferrule and the remaining volume of tooth tissue after tooth preparation
• Use non-end cutting Gates Glidden burs (sizes 2/3/4) to cut into the root canal to required length
• Select the smallest post drill and drill to required length
• Go up the drill sizes until appropriate
Practical Task 4 – Indirect post preparation & Impression

• Go up the drill sizes until appropriate diameter reached (ideally over 1.5mm – purple and above)
• Select plastic impression post
• Cut to length, mushroom, apply impression fixative
• Be ready for impression
Mattison et al 1982, Trabert et al 1978 both concluded that it is best to leave 4-5mm of apical GP. Never place an un-measured instrument within a root canal.
Ready for indirect impression: length, mushroom and adhesive
## Ordering Information

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<th>ParaPost Fiber Lux™</th>
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## ParaCore

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### ParaBond

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**ParaPost Fiber Posts**

Esthetics requires a solid base.
The complete esthetic post & core system

Indication-Driven Glass Fiber Posts

ParaPost® FIBER LUX™
Parallel Post Design

ParaPost® TAPER LUX™
Tapered Post Design

Post Head Design for Greater Stability

The special sequential head design from ParaPost® Fiber Lux™ and Taper Lux™ is aimed at enhancing the reliability of cement retention. This permits removal of retention points, even if the post length is insufficient from its head design, to allow for esthetic continuity without a problem.

Superior Strength

The high percentage of uni-directional glass fibres ensures excellent esthetic strength characteristics, allowing the post to be as thin as possible.

Filter Composition
- Glass Fiber: 84.5%
- Resin: 15.5%

Physical Properties
- Flexural Strength: 1000 MPa
- Flexural Modulus: 200 GPa
- Volume Loss: 0.1%

Quick, On-Command Post Cementation

ParaCore® cement is a unique, light-transmitting glass fiber cement that can be applied in one stage. This allows immediate bonding to dual and light-cured core materials and core composites using high-performance cement without affecting the post.

Exceptional Adhesive Retention

ParaCore® cement and ParaCore® fiber Lux™ and Taper Lux™ provide micro- and macro-mechanical retention to dual and self-curing resin cements and composite based core materials without the need for homogenous matrices.

NEW: Faster and Easier Post Cementation

ParaCore® Post Core Mixing Tip for direct application into the final cavity.
Direct Core Build

- Para - Bond
- Para - Core
Practical Task 5 – Cement Direct Post

- Select matching metal or carbon fiber post that matches your last drill size
- Make sure that the post fits to the correct (required) length
- Ensure that you have a spiral filler in slow hand piece and ready
- Mix-up cement and spin down to the full length of root canal
- Pump your post to seat
- Remove excess and let set
Practical Task 6 – Create and prepare Resin Core

• When lute cement I set and excess removed
• Evaluate and seat of Core / Crown mould – build up with composite resin beneath and light cure
• Prepare core and marginate for all-ceramic crown
Direct Core Build

- Para - Bond
- Para - Core
Assess Outcome

• Good endodontic and periodontal health
• Good ferrule (2-3mm)
• Good post fit
• No voids / gaps between GP and post
• Satisfactory core preparation – taper, two labial planes, margin shape, margin size and contour
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