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
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ParaBond consists of a Non-Fuse Conditioner and a Thermal cured Adhesive, which is ideal for situations where light might not penetrate, such as for post cementation. The adhesive system easily complement ParaCore to ensure for long lasting posts & corndentations with our outstanding sealing properties, on central bond interface and excellent retention.

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Esthetics requires a solid base.

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The complete esthetic post & core system

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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