EndoArt Diploma – Reflective Log

Day 1: Pulp anatomy, Biology and Pathology

Day 1 gave me a significantly clearer understanding of pulp pathology, how this results in patient signs and symptoms and how to consolidate this information into an accurate diagnosis. I have learnt to appreciate the chronological process of pulpal responses following bacterial exposure. More specifically, how this response can be manifested into symptoms reported by the patient.

Along with discussion of causes of apical periodontitis, I have also gained a better appreciation of pathologies that can mimic the condition, such as cysts. Such conditions highlight the importance of diagnostic testing prior to treatment, to ensure an appropriate diagnosis for that tooth is made and therefore a suitable treatment plan can be formulated.

We had a good discussion on relevant special tests and how some can be adapted for more effective findings, such as using a rubber dam to isolate a tooth when checking response to temperature. In the time that has passed since attending the study days, I have found myself utilising Endofrost testing more quickly than I previously would have and feel much more confident using this as a diagnostic tool to inform my treatment planning. I have also invested in a new apex locator with pulp testing capabilities. Though I have found the results can be subjective, I utilise this equipment more if I am finding a tooth particularly difficult to diagnose.

Since attending the course, I have noticed that I have better skills at appraising a radiograph in regard to assessing suitability for endodontic treatment. Previously, the main factor I would assess is curvature of roots, however I now take more time to look for pulp stones and especially calcified canals. I have a better overall understanding of how calcified canals present difficulties in access and feel much better prepared to circumvent these difficulties when I take on such cases. I find myself using radiographs more to discuss treatment options or limitations with a patient and think it is really helpful when I can communicate specific risks for that case or to help support the decision to refer onwards. Though I do not have access to CBCT in general practice, I am more confident at identifying when a case could benefit from CBCT and therefore, is beyond my capability.

Overall, as a result of this day I feel I have become more adept at assessing a given tooth, giving a confident diagnosis and treatment planning effectively. I have a more efficient manner of reading patient symptoms and connecting these with appropriate special tests to formulate an accurate pulpal and periapical diagnosis. Perhaps most importantly of all, this has resulted in an improved ability to assess whether endodontic treatment for a given tooth is something I can provide within my skill set or whether the tooth should require an onward referral.

Day 2: Access cavities & Rubber Dam

With my overall increase in confidence in performing RCT in general, I have inevitably been completing more cases. The knock-on effect of this has been reflected in increased confidence and speed when using rubber dam. Due to time pressures in the past, I was quick to assume that I could perform a quick access of a tooth and irrigate with chlorhexidine to prevent the need to 'waste time' placing a rubber dam. I now have a completely opposite approach to this scenario. I have come to appreciate the benefits of rubber dam in terms of isolation and improved visibility. Also, I think much more about the long-term restorability of a tooth before even starting - i.e. if I cannot successfully isolate with a rubber dam, then how can I better prepare the tooth to be accepting of it with deep margin elevation, or to consider where the tooth is even a good candidate for a long-term restoration

overall. Whilst I had a good understanding that sodium hypochlorite is the base of an ideal irrigant, I would neglect its use without a rubber dam when extirpating. Since attending the course, I cannot recall a scenario where I extirpated a tooth without a combination of rubber dam and hypochlorite. I noticed that the main reason I was neglecting the rubber dam in these situations was worrying about time pressures and that my nurses were not prepared for the situations I would want to use a rubber dam. I had some discussions with the nurses I work with and accepted that to begin with we may overrun on some emergency appointments. However, as we have increased in preparedness and confidence together, I now find I need no 'extra' time to use the rubber dam. As I am now using a more ideal irrigant on the first visit, I have noticed an increased number of patients getting a resolution of symptoms after the first visit as well. I also just feel more confident sending a patient home after the extirpation without worrying they may continue to experience pain.

One of the most significant impacts that I experienced on this day and afterwards has been the use of magnification. Prior to attending the course, I had not had such consistent use of a microscope and have learnt the difference this can make in assessing tooth structure (including cracks) and finding canals. Since this session I have invested in much higher magnification loupes (7.2x) and have noticed an instantaneous improvement in how long it takes me to locate canals. This investment has allowed me to dedicate more time to the later stages of opening and dressing a tooth, especially gaining straight line access and opening the coronal third.

In addition to improved magnification, I have also invested in long shank safe ended burs and endodontic ultrasonic tips. I am becoming more confident in defining the edges of the pulp chamber and identifying the difference between calcified deposits and dentine. With better tools and growing experience, I now find that my access cavities are more focused towards the margins of the pulp chamber, therefore preserving natural tooth structure.

On reflection, the knowledge gained from the study days with the hands-on opportunity to try endodontically focused equipment has significantly helped me to decide what can be utilised in my day-to-day practice. Whilst it has taken some time to purchase and adapt to some of these changes, I now feel much more prepared when approaching root treatments. The knock-on effect has led to increased patient comfort, better time management and potentially better outcomes when undertaking these treatments.