E=mc³: Endodontics is equal to the third power of many changes

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Revolutionary protocols and material science demonstrate the evolving sophistication of modern era root canal therapy. The technological advances of the past three decades have enabled greater debridement and disinfection of the labyrinthine root canal system. Iterations of apex localization of the labyrinthine root canal therapy. The technological sophistication of modern era root canals science demonstrate the evolving

The most profound change in endodontics is the recognition that root canal therapy is a restoratively driven discipline. Bio-smart materials used in the root and crown do not require egregious removal of tooth structure as dictated by classical protocols. Clinicians blinded by the optics of the “artistry” of radiographic results are recognizing that this does not represent the totality of the biologic requirements of success. The “look” academically disenfranchised the clinician from the understanding of the biomechanics of dentine and its impact on the potential for fracture. The excessive removal of tooth structure to produce a perfect apex may conflict with the clinical goal of preserving the maximum amount of tooth structure.

The rigid restorative mandate of posts and cores had the propensity to cause catastrophic failure. Fortunately, reduced taper: new irrigation products have reduced the retention of greater volumes of tooth structure and the costs of new equipment. Overpreparation tooth structure is not necessary in the adhesion era.

The dogma of the protocol of cleaning, shaping, irrigation and “monobloc obturation” is axiomatic folly. The pendulum swings of new equipment and treatments are not necessarily best practices. The primary disease vector of pulpitis and periapical disease as dictated by classical protocols. Clinicians blinded by the optics of their removal remains elusive. The work of Kishen and Shrestha on biofilm disruption by nanoparticles shows the greatest hope for elimination of microbe disease as a consequence of biofilm resistance intractability.

The ebbs and flows of endodontic growth, even if measured in dollops, has always have been part of the terrain of interdisciplinary dental therapy. The recognition that endodontics is an equal member at the table of disciplines is now assured as it has chosen to extend its involvement beyond the corridor. Endodontics is a foundational component of the state of oral health. Its outreach is now extended to a point commensurate with its potential.

The development of bio-active adhesive sealers has enhanced the biologic potential of root filling. However, the sum of these innovations has not yet produced a substantiative increase in treatment outcome percentages. For years, clinicians have accepted on faith the purported marketing claims of company-supported in vitro testing. Fortunately, scientific determination of the metrics of success of endodontic studies has replaced the possibility of experimental bias.

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Background:
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Conclusions:
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