

Clinical Research

[Association of Apical Periodontitis with Cardiovascular Disease via Noninvasive Assessment of Endothelial Function and Subclinical Atherosclerosis](#)

Nishant Chauhan, Shweta Mittal, Sanjay Tewari, Jyotsana Sen, Kuldip Laller

[Resilon: Assessment of Degraded Filling Material in Nonhealed Cases](#)

Lesleigh A. Payne, Peter Z. Tawil, Ceib Phillips, Ashraf F. Fouad

[The Effect of Crown Lengthening on the Outcome of Endodontically Treated Posterior Teeth: 10-year Survival Analysis](#)

Karishma Patil, Navid Khalighinejad, Nivine El-Refai, Kristin Williams, Andre Mickel

Regenerative Endodontics

[Release of Transforming Growth Factor Beta 1 from Human Tooth Dentin after Application of Either ProRoot MTA or Biodentine as a Coronal Barrier](#)

Kunlada Wattanapakkavong, Tanida Srisuwan

[Effects of 3-dimensional Bioprinting Alginate/Gelatin Hydrogel Scaffold Extract on Proliferation and Differentiation of Human Dental Pulp Stem Cells](#)

Haiyue Yu, Xiaoyi Zhang, Wenjing Song, Ting Pan, He Wang, Tingting Ning, Qin Wei, Hockin H.K. Xu, Buling Wu, Dandan Ma

Basic Research

Biology

[Mesenchymal Stem Cell Marker Expression in Periapical Abscess](#)

Carlos Estrela, Paulo Otávio Carmo Souza, Mateus Gehrke Barbosa, Artur Aburad de Carvalhosa, Aline Carvalho Batista, Décio dos Santos Pinto Júnior, Fernanda Paula Yamamoto-Silva, Brunno Santos de Freitas Silva

[Anatomic Analysis of Palatal Roots of Maxillary Molars Using Micro-computed Tomography](#)

Katherine A. Divine, Scott B. McClanahan, Alex Fok

[Neurotrophic Proteins in Dentin and Their Effect on Trigeminal Sensory Neurons](#)

Matthias Widbiller, Obadah Austah, Sophia R. Lindner, Jenny Sun, Anibal Diogenes

Technology

[Root Canal Disinfection by Single- and Multiple-instrument Systems: Effects of Sodium Hypochlorite Volume, Concentration, and Retention Time](#)

Isbelia Gazzaneo, Gaya C.S. Vieira, Alejandro R. Pérez, Flávio R.F. Alves, Lucio S. Gonçalves, Ibrahimu Mdala, José F. Siqueira Jr., Isabela N. Rôças

[Free Water Loss-induced Heterogeneous Residual Strain and Reduced Fatigue Resistance in Root Dentin: A 3-dimensional Digital Image Correlation Analysis](#)

Bobby Nadeau, Zhenning Chen, Anil Kishen

[Accuracy and Reliability of Root Crack and Fracture Detection in Teeth Using Magnetic Resonance Imaging](#)

Tyler J. Schuurmans, Donald R. Nixdorf, Djaudat S. Idiyatullin, Alan S. Law, Brian D. Barsness, Samantha H. Roach, Laurence Gaalaas

[Matching the Dimensions of Currently Available Instruments with the Apical Diameters of Mandibular Molar Mesial Root Canals Obtained by Micro-computed Tomography](#)

Bernardo M. Almeida, José Claudio Provenzano, Marília F. Marceliano-Alves, Isabela N. Rôças, José F. Siqueira Jr.

[Accuracy of Different Imaging CBCT Systems for the Detection of Natural External Radicular Resorption Cavities: An Ex Vivo Study](#)

Angela Graciela Deliga Schröder, Fernando Henrique Westphalen, Júlio César Schröder, Ângela Fernandes, Vânia Portela Ditzel Westphalen

[Changes in Geometry and Transportation of Root Canals with Severe Curvature Prepared by Different Heat-treated Nickel-titanium Instruments: A Micro-computed Tomographic Study](#)

Daniel José Filizola de Oliveira, Graziela Bianchi Leoni, Rafael da Silva Goulart, Manoel Damião de Sousa-Neto, Yara Teresinha Correa Silva Sousa, Ricardo Gariba Silva

[255-nm Light-emitting Diode Kills *Enterococcus faecalis* and Induces the Production of Cellular Biomarkers in Human Embryonic Palatal Mesenchyme Cells and Gingival Fibroblasts](#)

Kimberly Morio, Emma L. Thayer, Amber M. Bates, Kim A. Brogden

[Comparator Choice in Studies Testing Endodontic Instrument Fatigue Resistance: A Network Analysis](#)

Sascha Rudolf Herbst, Joachim Krois, Falk Schwendicke

[Microcomputed Assessment of Transportation, Centering Ratio, Canal Area, and Volume Increase after Single-file Rotary and Reciprocating Glide Path Instrumentation in Curved Root Canals: A Laboratory Study](#)

Zeliha Uğur Aydın, Neslihan Büşra Keskin, Taha Özyürek, Ferhat Geneci, Mert Ocak, Hakan Hamdi Çelik

[Novel Activated Microbubbles-based Strategy to Coat Nanoparticles on Root Canal Dentin: Fluid Dynamical Characterization](#)

Fang-Chi Li, Suraj Borkar, Arun Ramachandran, Anil Kishen

[Comparison of *In Vitro* Torque Generation during Instrumentation with Adaptive Versus Continuous Movement](#)

Sang Won Kwak, Jung-Hong Ha, Gary Shun-Pan Cheung, Sung Kyo Kim, Hyeon-Cheol Kim

[Effectiveness of Gutta-percha/Sealer Removal during Retreatment of Extracted Human Molars Using the GentleWave System](#)

Carl R. Wright, Gerald N. Glickman, Poorya Jalali, Mikhail Umorin

[Effect of Truss Access and Artificial Truss Restoration on the Fracture Resistance of Endodontically Treated Mandibular First Molars](#)

Mahmoud Y. Abou-Elnaga, Moataz-Bellah A.M. Alkhawas, Hyeon-Cheol Kim, Ashraf S. Refai

Case Report/Clinical Techniques

[Guided Endodontics Modified for Treating Molars by Using an Intracoronar Guide Technique](#)

Jørgen Buchgreitz, Mikkel Buchgreitz, Lars Bjørndal