

In Memoriam

[John I. Ingle, DDS, MSD, 1919–2017: The Legacy of an Extraordinary Leader](#)

Leif K. Bakland, Ilan Rotstein

CONSORT Randomized Clinical Trial

[Intracanal Cryotherapy Reduces Postoperative Pain in Teeth with Symptomatic Apical Periodontitis: A Randomized Multicenter Clinical Trial](#)

Jorge Vera, Jorge Ochoa, Monica Romero, Marino Vazquez-Carcaño, Cesar Omar Ramos-Gregorio, Ruben Rosas Aguilar, Alvaro Cruz, Philippe Sleiman, Ana Arias

[Effect of a Combination of Intranasal Ketorolac and Nitrous Oxide on the Success of the Inferior Alveolar Nerve Block in Patients with Symptomatic Irreversible Pulpitis: A Prospective, Randomized, Double-blind Study](#)

Daniel Stentz, Melissa Drum, Al Reader, John Nusstein, Sara Fowler, Mike Beck

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[Intentional Replantation Techniques: A Critical Review](#)

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[Methodological Quality Assessment of Meta-analyses in Endodontics](#)

Sereen Kattan, Su-Min Lee, Meetu R. Kohli, Frank C. Setzer, Bekir Karabucak

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[Ultrasound Assessment of Bone Healing after Root-end Surgery: Echoes Back to Patient's Safety](#)

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[Evaluation of Related Factors in the Failure of Endodontically Treated Teeth: A Cross-sectional Study](#)

Keziban Olcay, Hanife Ataoglu, Sema Belli

[Morphological Characteristics and Classification of Mandibular First Molars Having 2 Distal Roots or Canals: 3-Dimensional Biometric Analysis Using Cone-beam Computed Tomography in a Korean Population](#)

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[Root Canal Morphology Evaluation of Central and Lateral Mandibular Incisors Using Cone-beam Computed Tomography in an Israeli Population](#)

Avi Shemesh, Eitan Kavalerchik, Avi Levin, Joe Ben Itzhak, Oleg Levinson, Alex Lvovsky, Michael Solomonov

[A Cone-beam Computed Tomographic Study of Root and Canal Morphology of Maxillary First and Second Permanent Molars in a Thai Population](#)

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[Differential Expression of Long Noncoding RNAs in Normal and Inflamed Human Dental Pulp](#)

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[Complicated Root Canal Morphology of Mandibular Lateral Incisors Is Associated with the Presence of Distolingual Root in Mandibular First Molars: A Cone-beam Computed Tomographic Study in a Taiwanese Population](#)

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Regenerative Endodontics

[Minced Pulp as Source of Pulpal Mesenchymal Stem Cells with Odontogenic Differentiation Capacity](#)

Zhangrui Liang, Satoshi Kawano, Wei Chen, Moein Seyed Sadrkhani, Chaehwan Lee, Euseong Kim, Alireza Moshaverinia, Reuben H. Kim, Mo K. Kang

[Cytokine Expression of Stem Cells Originating from the Apical Complex and Coronal Pulp of Immature Teeth](#)

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[Bleaching of a Discolored Tooth with Retrieval of Remnants after Successful Regenerative Endodontics](#)

Aovana Timmerman, Peter Parashos

[Dimethylolallylglycine-embedded Poly\(\$\epsilon\$ -caprolactone\) Fiber Meshes Promote Odontoblastic Differentiation of Human Dental Pulp-derived Cells](#)

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[Bioactivity of Photoactivated Functionalized Nanoparticles Assessed in Lipopolysaccharide-contaminated Root Canals *In Vivo*](#)

Annie Shrestha, Shimon Friedman, Calvin D. Torneck, Anil Kishen

[Evaluation of the Periodontal Disease Effect on Pulp Volume](#)

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Technology

[Comparison of Alterations in the Surface Topographies of HyFlex CM and HyFlex EDM Nickel-titanium Files after Root Canal Preparation: A Three-dimensional Optical Profilometry Study](#)

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[Dehydration Induces Cracking in Root Dentin Irrespective of Instrumentation: A Two-dimensional and Three-dimensional Study](#)

Hagay Shemesh, Tom Lindtner, Carlos Aznar Portoles, Paul Zaslansky

[Biocompatibility of New Pulp-capping Materials NeoMTA Plus, MTA Repair HP, and Biodentine on Human Dental Pulp Stem Cells](#)

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[Root Canal Filling Quality of a Premixed Calcium Silicate Endodontic Sealer Applied Using Gutta-percha Cone-mediated Ultrasonic Activation](#)

Jung-Ae Kim, Yun-Chan Hwang, Vinicius Rosa, Mi-Kyung Yu, Kwang-Won Lee, Kyung-San Min

[Periodontal Blood Flow Protects the Alveolar Bone from Thermal Injury during Thermoplasticized Obturation: A Finite Element Analysis Study](#)

Rong Cen, Renqing Wang, Gary S.P. Cheung

[Foraminal Deformation after Foraminal Enlargement with Rotary and Reciprocating Kinematics: A Scanning Electronic Microscopy Study](#)

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[Antibacterial Activity of Endodontic Sealers against Planktonic Bacteria and Bacteria in Biofilms](#)

Vasileios Kapralos, Andreas Koutroulis, Dag Ørstavik, Pia Titterud Sunde, Håkon Valen Rukke

[Clindamycin-modified Triple Antibiotic Nanofibers: A Stain-free Antimicrobial Intracanal Drug Delivery System](#)

Ashley Karczewski, Sabrina A. Feitosa, Ethan I. Hamer, Divya Pankajakshan, Richard L. Gregory, Kenneth J. Spolnik, Marco C. Bottino

[Reinforcement of Simulated Immature Permanent Teeth after Mineral Trioxide Aggregate Apexification](#)

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[Cyclic and Torsional Fatigue Resistance of XP-endo Shaper and TRUShape Instruments](#)

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[Effects of Photodynamic Therapy on the Adhesive Interface of Fiber Posts Cementation Protocols](#)

Anna Thereza Peroba Rezende Ramos, Lauriê Garcia Belizário, Ana Carolina Venção, Keren Cristina Fagundes Jordão-Basso, Alessandra Nara de Souza Rastelli, Marcelo Ferrarezi de Andrade, Milton Carlos Kuga

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Case Report/Clinical Techniques

[Large Periapical or Cystic Lesions in Association with Roots Having Open Apices Managed Nonsurgically Using 1-step Apexification Based on Platelet-rich Fibrin Matrix and Biodentine Apical Barrier: A Case Series](#)

Sarang Sharma, Vivek Sharma, Deepak Passi, Dharendra Srivastava, Shibani Grover, Shubha Ranjan Dutta