CONSORT Randomized Clinical Trial

Comparison of Anesthetic Efficacy between Lidocaine with and without Magnesium Sulfate USP 50% for Inferior Alveolar Nerve Blocks in Patients with Symptomatic Irreversible Pulpitis

Review Article

Distribution of Genes Related to Antimicrobial Resistance in Different Oral Environments: A Systematic Review
Ludmila Coutinho Moraes, Marcus Vinícius Reis Só, Tatiane da Silva Dal Pizzol, Maria Beatriz Cardoso Ferreira, Francisco Montagner

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Riccardo D. Kraus, Thomas von Arx, David Gfeller, Julien Ducommun, Simon S. Jensen

Rapid Method for the Detection of Root Canal Bacteria in Endodontic Therapy
Kai Soo Tan, Victoria Soo Hoon Yu, Samantha Yiling Quah, Gunnar Bergenholtz

Isolation of Alkaline-tolerant Bacteria from Primary Infected Root Canals
Hui Pau Lew, Samantha Yiling Quah, Jean Nee Lui, Gunnar Bergenholtz, Victoria Soo Hoon Yu, Kai Soo Tan

Differential Diagnoses for Persistent Pain after Root Canal Treatment: A Study in the National Dental Practice-based Research Network
Donald R. Nixdorf, Alan S. Law, Mike T. John, Radwa M. Sobieh, Richie Kohli, Ruby H.N. Nguyen

C-Reactive Protein Expression Is Up-regulated in Apical Lesions of Endodontic Origin in Association with Interleukin-6
Mauricio Garrido, Andrea Dezerega, María José Bordagaray, Montserrat Reyes, Rolando Vernal, Samantha Melgar-Rodríguez, Pia Ciuchi, Rodolfo Paredes, Jocelyn García-Sesnich, Pablo Ahumada-Montalva, Marcela Hernández

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Ryan Reese, Anita Aminoshariae, Thomas Montagnese, Andre Mickel

A Retrospective Comparative Study of Cone-beam Computed Tomography versus Rendered Panoramic Images in Identifying the Presence, Types, and Characteristics of Dens Invaginatus in a Turkish Population
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Basic Research

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Leptin Promotes Dentin Sialophosphoprotein Expression in Human Dental Pulp
Jénifer Martín-González, Antonio Pérez-Pérez, Flore Sánchez-Jiménez, Eduardo Manuel Díaz-Parrado, Manuel de Miguel, Víctor Sánchez-Margalet, Juan José Segura-Egea

Expression and Function of the Actin-severing Protein Adseverin in the Proliferation, Migration, and Differentiation of Dental Pulp Cells
Xuyan Li, Hongwei Jiang, Yihua Huang, Qimei Gong, Jinming Wang, Junqi Ling

Genipin, a Cross-linking Agent, Promotes Odontogenic Differentiation of Human Dental Pulp Cells
Young-Sun Kwon, Eun-Su Lim, Hye-Min Kim, Yun-Chan Hwang, Kwang-Won Lee, Kyung-San Min

Response of Inflamed Pulps of Rat Molars after Capping with Pulp-capping Material Containing Fluocinolone Acetonide
Phumisak Louwakul, Veera Lertchirakarn

Four and a Half LIM Domain Protein 2 Enhances Differentiation and Mineralization of Human Dental Pulp Cells
Xiufen Tian, Qiang Wang, Xiaoying Wang

Technology

The Effect of Alteration of the Exposure Parameters of a Cone-beam Computed Tomographic Scan on the Diagnosis of Simulated Horizontal Root Fractures
David Jones, Francesco Mannocci, Manoharan Andiappan, Jackie Brown, Shanon Patel

Effect of a Combination of Torsional and Cyclic Fatigue Preloading on the Fracture Behavior of K3 and K3XF Instruments
Ya Shen, Abdullah Mahmoud Riahi, Les Campbell, Huimin Zhou, Tianfeng Du, Zhejun Wang, Wei Qian, Markus Haapasalo

Effect of Varying Water-to-Powder Ratios and Ultrasonic Placement on the Compressive Strength of Mineral Trioxide Aggregate
Fatima B. Basturk, Mohammad Hossein Nekoofar, Mahir Gunday, Paul M.H. Dummer

Comparison of the Cyclic Fatigue Resistance of 5 Different Rotary Pathfinding Instruments Made of Conventional Nickel-Titanium Wire, M-wire, and Controlled Memory Wire
İsmail Davut Capar, Mehmet Emin Kaval, Hüseyin Ertas, Bilge Hakan Sen

Fracture Resistance of Endodontically Treated Roots with Oval Canals Restored with Oval and Circular Posts
İsmail Uzun, Hakan Arslan, Ezgi Doğanay, Buğra Güler, Cangül Keskin, İsmail Davut Çapar

Torsion and Bending Properties of OneShape and WaveOne Instruments
Amr M. Elagthy, Shaymikaya E. Eisaka

Shaping Ability of 4 Different Single-file Systems in Simulated S-shaped Canals
Abdulrahman Mohammed Saleh, Pouyan Vakili Gilani, Saeid Tavanafar, Edgar Schäfer

In Vitro Study of Calcium Hydroxide Removal from Mandibular Molar Root Canals
Jingzhi Ma, Ya Shen, Yan Yang, Yuan Gao, Pan Wan, Yan Gan, Payal Patel, Allison Curtis, Mehrzad Khakpour, Markus Haapasalo

Case Report/Clinical Techniques

Guided Tissue Regeneration in Endodontic Surgery by Using a Bioactive Resorbable Membrane
C. Susan Chi, Diego B. Andrade, Sahng G. Kim, Charles S. Solomon

Treatment of Large Apical Lesions with Mucosal Fenestration: A Clinical Study with Long-term Evaluation
Yi-Chun Lin, Ya-Yun Lee, Yi-Ching Ho, Yi-Chen Hsieh, Yu-Lin Lai, Shyh-Yuan Lee