



## CONSORT Randomized Clinical Trial

A Randomized Controlled Study of the Use of ProRoot Mineral Trioxide Aggregate and Endocem as Direct Pulp Capping Materials: 3-month versus 1-year Outcomes

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## Review Article

Correlation between *Enterococcus faecalis* and Persistent Intraradicular Infection Compared with Primary Intraradicular Infection: A Systematic Review

Chenjiao Zhang, Jianrong Du, Zhixiang Peng

## Clinical Research

Genetic Variants in Cyclooxygenase-2 Contribute to Post-treatment Pain among Endodontic Patients

Elizabeth Applebaum, Andrea G. Nackley, Eric Bair, William Maixner, Asma A. Khan

General Dentists' Use of Isolation Techniques during Root Canal Treatment: From the National Dental Practice-based Research Network

Nathaniel C. Lawson, Gregg H. Gilbert, Ellen Funkhouser, Paul D. Eleazer, Paul L. Benjamin, Donald C. Worley

Comparison of Bacterial Community Composition of Primary and Persistent Endodontic Infections Using Pyrosequencing

Giorgos N. Tzanetakis, M. Andrea Azcarate-Peril, Sophia Zachaki, Panos Panopoulos, Evangelos G. Kontakiotis, Phoebus N. Madianos, Kimon Divaris

Tomographic Evaluation of Reparative Dentin Formation after Direct Pulp Capping with Ca(OH)<sub>2</sub>, MTA, Biodentine, and Dentin Bonding System in Human Teeth

Alicja Nowicka, Grażyna Wilk, Mariusz Lipski, Janusz Kolečki, Jadwiga Buczkowska-Radlińska

Cone-beam Computed Tomography Analysis of the Root Canal Morphology of Maxillary First and Second Premolars in a Spanish Population

Francesc Abella, Luís Miguel Teixidó, Shanon Patel, Francisco Sosa, Fernando Duran-Sindreu, Miguel Roig

Residents' Perceptions of the Graduate Endodontic Application Selection Process and Match

Karl F. Woodmansey, Jianing He, Gerald N. Glickman

## Basic Research

### Biology

Temporal-controlled Dexamethasone Releasing Chitosan Nanoparticle System Enhances Odontogenic Differentiation of Stem Cells from Apical Papilla

Suja Shrestha, Anibal Diogenes, Anil Kishen

Interferon Gamma-treated Dental Pulp Stem Cells Promote Human Mesenchymal Stem Cell Migration *In Vitro*

Chelsea Strojny, Michael Boyle, Amelia Bartholomew, Premanand Sundivakkam, Satish Alapati

Effect of BioAggregate on Receptor Activator of Nuclear Factor-Kappa B Ligand-induced

Osteoclastogenesis from Murine Macrophage Cell Line *In Vitro*

Jie Zhang, Lingxin Zhu, Ping Yan, Bin Peng

Role of ALK5/Smad2/3 and MEK1/ERK Signaling in Transforming Growth Factor Beta 1-modulated Growth, Collagen Turnover, and Differentiation of Stem Cells from Apical Papilla of Human Tooth

Hsiao-Hua Chang, Mei-Chi Chang, I-Hua Wu, Guay-Fen Huang, Wei-Ling Huang, Yin-Lin Wang, Sheng-Yang Lee,

Chien-Yang Yeh, Ming-Kuang Guo, Chiu-Po Chan, Hsiang-Chi Hsien, Jjiang-Huei Jeng

Expression and Distribution of Receptor Activator of Nuclear Factor Kappa B, Receptor Activator of Nuclear Factor Kappa B Ligand, and Osteoprotegerin in Periradicular Cysts

Luciana Armada, Patrícia dos Santos Marotta, Fábio Ramôa Pires, José F. Siqueira

Expression of Interleukin-1 $\beta$  and Matrix Metalloproteinase-8 in Cytolytic and Noncytolytic *Enterococcus faecalis*-induced Persistent Apical Periodontitis: A Comparative Study in the Rat

Bingling Lu, Jinxiu Zhang, Xiaojing Huang, Suli Xiao, Ming Zhang, Zhiyu Cai

[Combined Antibacterial Effect of Sodium Hypochlorite and Root Canal Sealers against \*Enterococcus faecalis\* Biofilms in Dentin Canals](#)

Tianfeng Du, Zhejun Wang, Ya Shen, Jingzhi Ma, Yingguang Cao, Markus Haapasalo

[Pulp Revascularization of Immature Dog Teeth with Apical Periodontitis Using Triantibiotic Paste and Platelet-rich Plasma: A Radiographic Study](#)

Soledad Rodríguez-Benítez, Carlos Stambolsky, José L. Gutiérrez-Pérez, Daniel Torres-Lagares, Juan José Segura-Egea

[Periapical Lesions Decrease Insulin Signaling in Rat Skeletal Muscle](#)

Rafael Dias Astolphi, Mariane Machado Curbete, Fernando Yamamoto Chiba, Luciano Tavares Angelo Cintra, Edilson Ervolino, Max Sander de Oliveira da Mota, Cristina Antoniali, Cléa Adas Saliba Garbin, Doris Hissako Sumida

## Technology

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[Influence of Using Clinical Microscope as Auxiliary to Perform Mechanical Cleaning of Post Space: A Bond Strength Analysis](#)

Ricardo Ferreira, Maíra Prado, Adriana de Jesus Soares, Alexandre Augusto Zaia, Francisco José de Souza-Filho  
[Comparative Study of Pulpal Responses to Pulpotomy with ProRoot MTA, RetroMTA, and TheraCal in Dogs' Teeth](#)

Haewon Lee, Yooseok Shin, Seong-Oh Kim, Hyo-Seol Lee, Hyung-Jun Choi, Je Seon Song

[Evaluation of Cold Plasma Treatment and Safety in Disinfecting 3-week Root Canal \*Enterococcus faecalis\* Biofilm \*In Vitro\*](#)

Yinglong Li, Ke Sun, Guopin Ye, Yongdong Liang, Hong Pan, Guomin Wang, Yijiao Zhao, Jie Pan, Jue Zhang, Jing Fang

[Evaluation of Effects on the Adhesion of Various Root Canal Sealers after Er:YAG Laser and Irrigants Are Used on the Dentin Surface](#)

Ismail Ozkocak, Bade Sonat

[Antimicrobial Effects of Novel Triple Antibiotic Paste–Mimic Scaffolds on \*Actinomyces naeslundii\* Biofilm](#)

Maria T.P. Albuquerque, Stuart J. Ryan, Eliseu A. Münchow, Maria M. Kamocka, Richard L. Gregory, Marcia C. Valera, Marco C. Bottino

[The Effect of Surfactants on the Stability of Sodium Hypochlorite Preparations](#)

Andrea R. Guastalli, Roger M. Clarkson, Giampiero Rossi-Fedele

[Validation of Optical Coherence Tomography against Micro-computed Tomography for Evaluation of Remaining Coronal Dentin Thickness](#)

Patrycja Majkut, Alireza Sadr, Yasushi Shimada, Yasunori Sumi, Junji Tagami

[Antibacterial Properties Associated with Chitosan Nanoparticle Treatment on Root Dentin and 2 Types of Endodontic Sealers](#)

Aldo del Carpio-Perochena, Anil Kishen, Annie Shrestha, Clovis Monteiro Bramante

[Effect of Ultrasonic Activation of Irrigants on Smear Layer Removal](#)

Tamer F. Schmidt, Cleonice S. Teixeira, Mara C.S. Felipe, Wilson T. Felipe, David H. Pashley, Eduardo A. Bortoluzzi

[Evaluation of the Effect of \*Enterococcus faecalis\* Biofilm on the 2% Chlorhexidine Substantivity: An \*In Vitro\* Study](#)

Daiana Elisabeth Böttcher, Nicole T. Sehnem, Francisco Montagner, Clarissa Cavalcanti Fatturi Parolo, Fabiana Soares Grecca

## Case Report/Clinical Techniques

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[Vertical Bone Growth after Autotransplantation of Mature Third Molars: 2 Case Reports with Long-term Follow-up](#)

Sunil Kim, Seung-Jong Lee, Yooseok Shin, Euseong Kim

[Varicella Zoster Virus and Internal Root Resorption: A Case Report](#)

Bitra Talebzadeh, Saeed Rahimi, Amir Ardalan Abdollahi, Ahmad Nouroloyuni, Vahide Asghari

[Selective Root Retreatment: A Novel Approach](#)

William J. Nudera