

## CONSORT Randomized Clinical Trial

---

Efficacy of a Buffered 4% Lidocaine Formulation for Incision and Drainage: A Prospective, Randomized, Double-blind Study

Taryn Kratz Harreld, Sara Fowler, Melissa Drum, Al Reader, John Nusstein, Mike Beck

## Review Article

---

Ultrasonically Activated Irrigation to Remove Calcium Hydroxide from Apical Third of Human Root Canal System: A Systematic Review of *In Vitro* Studies

Ibrahim Ethem Yaylali, Ayse Diljin Kececi, Buglem Ureyen Kaya

## Clinical Research

---

Infection Control in Retreatment Cases: *In Vivo* Antibacterial Effects of 2 Instrumentation Systems

Renata C.V. Rodrigues, Henrique S. Antunes, Mônica A.S. Neves, José F. Siqueira, Isabela N. Rôças  
Diagnostic Accuracy of Quantitative Sensory Testing to Discriminate Inflammatory Toothache and Intraoral Neuropathic Pain

André Luís Porporatti, Yuri Martins Costa, Juliana Stuginski-Barbosa, Leonardo Rigoldi Bonjardim, Marco Antônio Hungaro Duarte, Paulo César Rodrigues Conti

Influence of Endodontic Treatment and Coronal Restoration on Status of Periapical Tissues: A Cone-beam Computed Tomographic Study

Aline C. Gomes, Yuri Nejaim, Amaro I.V. Silva, Francisco Haiter-Neto, Nestor Cohenca, Alexandre A. Zaia, Emmanuel João Nogueira Leal Silva

## Basic Research

---

### Biology

---

Histologic Analysis of the Influence of a Gelatin-based Scaffold in the Repair of Immature Dog Teeth Subjected to Regenerative Endodontic Treatment

Clacir de Lourdes Dotto Londero, Claudia Medianeira Londero Pagliarin, Mara Cristina Santos Felipe, Wilson Tadeu Felipe, Cristiane Cademartori Danesi, Fernando Branco Barletta

Histologic Assessment of Quick-Set and Mineral Trioxide Aggregate Pulpotomies in a Canine Model

Karl F. Woodmansey, George D. Kohout, Carolyn M. Primus, Emet Schneiderman, Lynne A. Opperman

Sirtuin 6 Modulates Hypoxia-induced Apoptosis in Osteoblasts via Inhibition of Glycolysis:

Implication for Pathogenesis of Periapical Lesions

Sang-Heng Kok, Kuo-Liang Hou, Chi-Yuan Hong, Ling-Hsiu Chao, Eddie Hsiang-Hua Lai, Han-Wei Wang, Hsiang Yang, Chia-Tung Shun, Juo-Song Wang, Sze-Kwan Lin

Curcumin in Combination with Piperine Suppresses Osteoclastogenesis *In Vitro*

Caroline A. Martins, Gabriele Leyhausen, Joachim Volk, Werner Geurtsen

*In Vitro* Evaluation of ProRoot MTA, Biodentine, and MM-MTA on Human Alveolar Bone Marrow Stem Cells in Terms of Biocompatibility and Mineralization

Suzan Margunato, Pakize Neslihan Taşlı, Safa Aydın, Meriç Karapınar Kazandağ, Fikretin Şahin

Accuracy of Turbidimetric Limulus Amebocyte Lysate Assay for the Recovery of Endotoxin Interacted with Commonly Used Antimicrobial Agents of Endodontic Therapy

Ariane C.S. Marinho, Ana R.O. Polay, Brenda P.F.A. Gomes

### Technology

---

Micro-Computed Tomographic Evaluation of Hard Tissue Debris Removal after Different Irrigation Methods and Its Influence on the Filling of Curved Canals

Laila Gonzales Freire, Elaine Faga Iglecias, Rodrigo Sanches Cunha, Marcelo dos Santos, Giulio Gavini

### [Bond Strength between Fiber Posts and Root Dentin Treated with Natural Cross-linkers](#)

Douglas Cecchin, Leticia Cazarotto Pin, Ana Paula Farina, Matheus Souza, Cristina de Mattos Pimenta Vidal, Yuri Dal Bello, Caio Cezar Randi Ferraz, Ana Bedran-Russo

### [Qualitative Time-of-Flight Secondary Ion Mass Spectrometry Analysis of Root Dentin Irrigated with Sodium Hypochlorite, EDTA, or Chlorhexidine](#)

Kamil P. Kolosowski, Rana N.S. Sodhi, Anil Kishen, Bettina R. Basrani

### [Accuracy of Cone-beam Computed Tomography in the Detection of a Second Mesio Buccal Root Canal in Endodontically Treated Teeth: An \*Ex Vivo\* Study](#)

Hesam Mirmohammadi, Lamees Mahdi, Poerya Partovi, Abbasali Khademi, Hagay Shemesh, Bassam Hassan

### [Comparison of the Resistance of Teeth Instrumented with Different Nickel-Titanium Systems to Vertical Root Fracture: An \*In Vitro\* Study](#)

Ersan Çiçek, M. Ali Aslan, Oğuzhan Akkoçan

### [Cyclic Fatigue of ProFile Vortex and Vortex Blue Nickel-Titanium Files in Single and Double Curvatures](#)

Frederic Duke, Ya Shen, Huimin Zhou, N. Dorin Ruse, Zhe-jun Wang, Ahmed Hieawy, Markus Haapasalo

### [Shear Bond Strength of a Self-adhering Flowable Composite and a Flowable Base Composite to Mineral Trioxide Aggregate, Calcium-enriched Mixture Cement, and Biodentine](#)

Mustafa Altunsoy, Mehmet Tanrıver, Evren Ok, Ebru Kucukyilmaz

### [Relationship between Root Apices and the Mandibular Canal: A Cone-beam Computed Tomographic Analysis in a German Population](#)

Sebastian Bürklein, Carolin Grund, Edgar Schäfer

### [Evaluation of Root Canal Debridement of Human Molars Using the GentleWave System](#)

Brandi Molina, Gerald Glickman, Prashanthi Vandrangi, Mehrzad Khakpour

### [Micro-Computed Tomography Evaluation of ProTaper Next and BioRace Shaping Outcomes in Maxillary First Molar Curved Canals](#)

Damiano Pasqualini, Mario Alovisi, Andrea Cemenasco, Lucia Mancini, Davide Salvatore Paolino, Caterina Chiara

Bianchi, Andrea Roggia, Nicola Scotti, Elio Berutti

### [Viscoelastic Properties of Dental Pulp Tissue and Ramifications on Biomaterial Development for Pulp Regeneration](#)

Cevat Eriskan, Dilhan M. Kalyon, Jian Zhou, Sahng G. Kim, Jeremy J. Mao

### [Evaluation of the Shaping Characteristics of ProTaper Gold, ProTaper NEXT, and ProTaper Universal in Curved Canals](#)

Jason Gagliardi, Marco Aurélio Versiani, Manoel Damião de Sousa-Neto, Andres Plazas-Garzon, Bettina Basrani

## Case Report/Clinical Techniques

---

### [Histologic Outcomes of Uninfected Human Immature Teeth Treated with Regenerative Endodontics: 2 Case Reports](#)

Ali Nosrat, Alireza Kolahdouzan, Farzaneh Hosseini, Ehsan A. Mehrizi, Prashant Verma, Mahmoud Torabinejad

### [Endodontic Surgery of a Deviated Premolar Root in the Surgical Orthodontic Management of an Impacted Maxillary Canine](#)

Eugenio Pedullà, Jessica Valentino, Silvia Rapisarda

### [Use of EndoVac System for Aspiration of Exudates from a Large Periapical Lesion: A Case Report](#)

Ali Keleş, Hatice Alçın

### [Intraosseous Non-Hodgkin Lymphoma Mimicking a Periapical Lesion](#)

Débora Lima Pereira, Diego Tetzner Fernandes, Alan Roger Santos-Silva, Pablo Agustin Vargas, Oslei Paes de Almeida, Márcio Ajudarte Lopes

### [Management of Teeth with Persistent Apical Periodontitis after Root Canal Treatment Using Regenerative Endodontic Therapy](#)

Tarek Mohamed A. Saoud, George T.-J. Huang, Jennifer L. Gibbs, Asgeir Sigurdsson, Louis M. Lin