

## In Remembrance

---

### [The Relationship of Endodontic–Periodontic Lesions](#)

James H.S. Simon, Dudley H. Glick, Alfred L. Frank

## Review Articles

---

### [Management of Intracanal Separated Instruments](#)

Ahmad A. Madarati, Mark J. Hunter, Paul M.H. Dummer

### [The Significance of Epithelial Rests of Malassez in the Periodontal Ligament](#)

David Keinan, Robert E. Cohen

## Clinical Research

---

### [Second Canal in Mesiobuccal Root of Maxillary Molars Is Correlated with Root Third and Patient Age: A Cone-beam Computed Tomographic Study](#)

Adriana Gurgel de Araújo Rebouças Reis, Renata Grazziotin-Soares, Fernando Branco Barletta, Vania Regina Camargo Fontanella, Celia Regina Winck Mahl

### [Suitability of Time Estimates for Survival Analysis of Endodontic Treatment](#)

Gary S.P. Cheung, Angeline H.C. Lee, May C.M. Wong

### [A Prospective, Randomized, Double-blind Comparison of the Injection Pain and Anesthetic Onset of 2% Lidocaine with 1:100,000 Epinephrine Buffered with 5% and 10% Sodium Bicarbonate in Maxillary Infiltrations](#)

Paul Hobeich, Stephen Simon, Emit Schneiderman, Jianing He

### [Periradicular Status and Quality of Root Canal Fillings and Coronal Restorations in an Urban Colombian Population](#)

Jaime O. Moreno, Flávio R.F. Alves, Lúcio S. Gonçalves, Angela M. Martinez, Isabela N. Rôças, José F. Siqueira

## Basic Research Biology

---

### [Localization and Signaling Patterns of Vascular Endothelial Growth Factors and Receptors in Human Periapical Lesions](#)

Anca Virtej, Sigbjørn S. Løes, Ellen Berggreen, Athanasia Bletsas

### [Lymphoid Enhancer-binding Factor 1 Expression Precedes Dentin Sialophosphoprotein Expression during Rat Odontoblast Differentiation and Regeneration](#)

Mitsushiro Nakatomi, Hiroko Ida-Yonemochi, Hayato Ohshima

### [Simvastatin Suppresses Osteoblastic Expression of Cyr61 and Progression of Apical Periodontitis through Enhancement of the Transcription Factor Forkhead/Winged Helix Box Protein O3a](#)

Li-Deh Lin, Sze-Kwan Lin, Yueh-Ling Chao, Sang-Heng Kok, Chi-Yuan Hong, Kuo-Liang Hou, Eddie Hsiang-Hua Lai, Hsiang Yang, Ming-Shu Lee, Juo-Song Wang

### [Mesenchymal Stem Cells Promote Hard-tissue Repair after Direct Pulp Capping](#)

Maram Obeid, Shehab El Din Mohamed Saber, Alaa El Din Ismael, Ehab Hassanien

### [Effect of \*Enterococcus faecalis\* Lipoteichoic Acid on Apoptosis in Human Osteoblast-like Cells](#)

Yaguang Tian, Xiaolei Zhang, Kai Zhang, Zhi Song, Runfu Wang, Shuheng Huang, Zhengmei Lin

### [Expression and Regulation of a Disintegrin and Metalloproteinase-8 and -17 in Development of Rat Periradicular Lesion](#)

Tsuyoshi Tanaka, Nobuaki Ozeki, Rie Kawai, Ichiro Imaizumi, Kazuhiko Nakata, Hiroshi Nakamura

### [Outcome of Periapical Lesions in a Rat Model of Type 2 Diabetes: Refractoriness to Systemic Antioxidant Therapy](#)

Carlos Frederico B. Wolle, Luciana A. Zollmann, Patrícia O. Bairros, Adriana Etges, Carlos E. Leite, Fernanda B. Morrone, Maria M. Campos

#### [Periapical Lesions Decrease Insulin Signal and Cause Insulin Resistance](#)

Rafael Dias Astolphi, Mariane Machado Curbete, Natalia Helena Colombo, Daisy Jaqueline Shirakashi, Fernando Yamamoto Chiba, Annelise Katrine Carrara Prieto, Luciano Tavares Angelo Cintra, Suely Regina Mogami Bomfim, Edilson Ervolino, Doris Hissako Sumida

## Technology

---

#### [Tissue Reactions to a New Mineral Trioxide Aggregate–containing Endodontic Sealer](#)

Cauana Oliva Tavares, Daiana Elisabeth Böttcher, Eloísa Assmann, Patrícia Maria Poli Kopper, José Antônio Poli de Figueiredo, Fabiana Soares Grecca, Roberta Kochenborger Scarparo

#### [A Comparative Study of Biofilm Removal with Hand, Rotary Nickel-Titanium, and Self-Adjusting File Instrumentation Using a Novel \*In Vitro\* Biofilm Model](#)

James Lin, Ya Shen, Markus Haapasalo

#### [Detection of Para-Chloroaniline, Reactive Oxygen Species, and 1-Chloro-4-Nitrobenzene in High Concentrations of Chlorhexidine and in a Mixture of Chlorhexidine and Calcium Hydroxide](#)

Luiz Eduardo Barbin, Carlos Estrela, Débora Fernandes Costa Guedes, Júlio César Emboava Spanó, Manoel Damião Sousa-Neto, Jesus Djalma Pécora

#### [Critical Evaluation of the Push-out Test for Root Canal Filling Materials](#)

Epita S. Pane, Joseph E.A. Palamara, Harold H. Messer

#### [The Effect of MTADN on 10 \*Enterococcus faecalis\* Isolates and Biofilm: An \*In Vitro\* Study](#)

Zhongchun Tong, Junqi Ling, Zhengmei Lin, Xiaolan Li, Yunjing Mu

#### [Electrochemical Dissolution of Nickel-Titanium Endodontic Files Induces Periodontal Ligament Cell Death](#)

Quinn Mitchell, Billie Gail Jeansonne, Diana Stoute, Thomas E. Lallier

#### [Effect of Altering the Reciprocation Range on the Fatigue Life and the Shaping Ability of WaveOne Nickel-Titanium Instruments](#)

Shehab El Din Mohamed Saber, Shaimaa Mohamed Abu El Sadat

#### [Effect of Different Irrigation Protocols on Resin Sealer Bond Strength to Dentin](#)

Máira Prado, Renata A. Simão, Brenda P.F.A. Gomes

#### [Fatigue Life of Reciproc and Mtwo Instruments Subjected to Static and Dynamic Tests](#)

Hélio P. Lopes, Carlos N. Elias, Márcia V.B. Vieira, José F. Siqueira, Marcelo Mangelli, Weber S.P. Lopes, Victor T.L. Vieira, Flávio R.F. Alves, Julio C.M. Oliveira, Thaianie G. Soares

#### [Effect of Blood Contamination on the Retention Characteristics of Two Endodontic Biomaterials in Simulated Furcation Perforations](#)

Saeed Rahimi, Negin Ghasemi, Shahriar Shahi, Mehrdad Lotfi, Mohammad Froughreyhani, Amin Salem Milani, Mahmood Bahari

#### [Influence of Dentin from the Root Canal Walls and the Pulp Chamber Floor on the pH of Intracanal Medicaments](#)

Anastasia Agrafioti, Nestoras E. Tzimpoulas, Evangelos G. Kontakiotis

#### [Influence of the Geometry of Curved Artificial Canals on the Fracture of Rotary Nickel-Titanium Instruments Subjected to Cyclic Fatigue Tests](#)

Hélio P. Lopes, Márcia V.B. Vieira, Carlos N. Elias, Lucio S. Gonçalves, José F. Siqueira, Edson J.L. Moreira, Victor T.L. Vieira, Letícia C. Souza

#### [Comparison of Vibringe, EndoActivator, and Needle Irrigation on Sealer Penetration in Extracted Human Teeth](#)

Jordan A. Bolles, Jianing He, Kathy K.H. Svoboda, Emet Schneiderman, Gerald N. Glickman

## Case Report/Clinical Techniques

---

#### [Exuberant Biofilm Infection in a Lateral Canal as the Cause of Short-term Endodontic Treatment Failure: Report of a Case](#)

Domenico Ricucci, Simona Loghin, José F. Siqueira

#### [Regenerative Endodontic Treatment of an Immature Permanent Tooth at an Early Stage of Root Development: A Case Report](#)

Xu Chen, Zhi-Fan Bao, Yao Liu, Ming Liu, Xiao-Qing Jin, Xue-Bin Xu

