

## In Remembrance

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### Canal Configuration in the Mesio Buccal Root of the Maxillary First Molar and Its Endodontic Significance

Franklin S. Weine, Harry J. Healey, Harold Gerstein, Leonard Evanson

## CONSORT Randomized Clinical Trial

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### Effect of Different Apical Preparation Sizes on Outcome of Primary Endodontic Treatment: A Randomized Controlled Trial

Hans Raj Saini, Sanjay Tewari, Pankaj Sangwan, Jigyasa Duhan, Alpa Gupta

## Clinical Research

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### Lesion Progression in Post-treatment Persistent Endodontic Lesions

Victoria Soo Hoon Yu, Harold Henry Messer, Liang Shen, Robert Yee, Chin-ying Stephen Hsu

### Patient Preferences Regarding 1-Visit versus 2-Visit Root Canal Therapy

Kaci C. Vela, Richard E. Walton, Martin Trope, Paul Windschitl, Daniel J. Caplan

### A Prospective Study of the Extraction and Retention Incidence of Endodontically Treated Teeth with Uncertain Prognosis after Endodontic Referral

Nestoras E. Tzimpoulas, Michalis G. Alisafis, Giorgos N. Tzanetakos, Evangelos G. Kontakiotis

### Mahidol Study 1: Comparison of Radiographic and Survival Outcomes of Immature Teeth Treated with Either Regenerative Endodontic or Apexification Methods: A Retrospective Study

Thanawan Jeeruphan, Jeeraphat Jantararat, Kallaya Yanpiset, Lalida Suwannapan, Phannarai Khewsawai, Kenneth M. Hargreaves

### Effect of Preoperative Alprazolam on the Success of Inferior Alveolar Nerve Block for Teeth with Irreversible Pulpitis

Abbas Ali Khademi, Masoud Saatchi, Mohsen Minaiyan, Nasim Rostamizadeh, Fatemeh Sharafi

### Effect of Maintaining Apical Patency on Irrigant Penetration into the Apical Two Millimeters of Large Root Canals: An *In Vivo* Study

Jorge Vera, Erick M. Hernández, Mónica Romero, Ana Arias, Lucas W.M. van der Sluis

### Detection of Vertical Root Fractures *In Vivo* in Endodontically Treated Teeth by Cone-Beam Computed Tomography Scans

Maria Elissavet Metska, Irene Helena Adriana Aartman, Paul Rudolf Wesselink, Ahmet Rifat Özok

## Basic Research

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### Biology

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### Alteration of MicroRNA Expression of Human Dental Pulp Cells during Odontogenic Differentiation

Qimei Gong, Runfu Wang, Hongwei Jiang, Zhengmei Lin, Junqi Ling

### Voltage-dependent Sodium Channels and Calcium-activated Potassium Channels in Human Odontoblasts *In Vitro*

Hideki Ichikawa, Hyong-Jung Kim, Apichai Shuprisha, Tetsuo Shikano, Maki Tsumura, Yoshiyuki Shibukawa, Masakazu Tazaki

### Presence of Myofibroblasts and Matrix Metalloproteinase 2 in Radicular Cysts, Dentigerous Cysts, and Keratocystic Odontogenic Tumors: A Comparative Immunohistochemical Study

Michele Regina Nadalin, Eduardo Rodrigues Fregnani, Yara Teresinha Correa Silva-Sousa, Danyel Elias da Cruz Perez

### Effects of Calcium Hydroxide on Cytokine Expression in Endodontic Infections

Warley Luciano Fonseca Tavares, Luciana Carla Neves de Brito, Luiz Carlos Feitosa Henriques, Flávia Rocha Fonseca Teles, Ricardo Palmier Teles, Leda Quércia Vieira, Antônio Paulino Ribeiro Sobrinho

## Technology

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### Direct Effect of Intracanal Medicaments on Survival of Stem Cells of the Apical Papilla

Nikita B. Ruparel, Fabricio B. Teixeira, Caio C.R. Ferraz, Anibal Diogenes

### Effectiveness of Endodontic Disinfecting Solutions against Young and Old *Enterococcus faecalis* Biofilms in Dentin Canals

Zhejun Wang, Ya Shen, Markus Haapasalo

### Effect of Canal Preparation on Fill Length in Straight Root Canals Obturated with RealSeal 1 and Thermafil Plus

Thomas J. Heeren, Marc E. Levitan

### Assessment of Influence of Flexion Angles of Files in Apical Stop Preparation by Using Manual and Rotary Instrumentation Techniques

Analice Giovani Pereira, Renata Medeiros Fagundes dos Santos, Kellen Cristina Mendes Azevedo, Luís Henrique Araújo Raposo, João Carlos Gabrielli Biffi

### Infection of Apical Dentin and Root-end Cavity Disinfection

Abdul Aziz, Nicholas P. Chandler, Catharina H.J. Hauman, Jonathan W. Leichter, Andrew McNaughton, Geoffrey R. Tompkins

### Effect of MTAD as a Final Rinse on Removal of Smear Layer in Ten-minute Preparation Time

Mehrdad Lotfi, Sepideh Vosoughhosseini, Mohammad Ali Saghiri, Vahid Zand, Bahram Ranjkesh, Negin Ghasemi

### Comparative Evaluation of Calcium Hypochlorite and Sodium Hypochlorite on Soft-tissue Dissolution

Arindam Dutta, William P. Saunders

### Flexural Stiffness and Stresses in Nickel-Titanium Rotary Files for Various Pitch and Cross-sectional Geometries

Antheunis Versluis, Hyeon-Cheol Kim, WooCheol Lee, Byung-Min Kim, Chan-Joo Lee

### Effect of Combined Digital Imaging Parameters on Endodontic File Measurements

Matheus Lima de Oliveira, Geraldo Camilo de Souza Pinto, Glaucia Maria Bovi Ambrosano, Guilherme Monteiro Tosoni

### Influence of Different Angles of Reciprocation on the Cyclic Fatigue of Nickel-Titanium Endodontic Instruments

Gianluca Gambarini, Alessio Giansiracusa Rubini, Dina Al Sudani, Richard Gergi, Antonio Culla, Francesca De Angelis, Stefano Di Carlo, Giorgio Pompa, Nada Osta, Luca Testarelli

### Depth of Penetration of Four Resin Sealers into Radicular Dentinal Tubules: A Confocal Microscopic Study

Saurabh S. Chandra, Padmanabhan Shankar, Rajamani Indira

### Mechanical Behavior of Pathfinding Endodontic Instruments

Hélio P. Lopes, Carlos N. Elias, José F. Siqueira, Renata G. Soares, Letícia C. Souza, Julio C.M. Oliveira, Weber S.P. Lopes, Marcelo Mangelli

## Case Report/Clinical Techniques

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### Management of Perforations: Four Cases from Two Private Practices with Medium- to Long-term Recalls

Marga Ree, Richard Schwartz

### Drawbacks and Unfavorable Outcomes of Regenerative Endodontic Treatments of Necrotic Immature Teeth: A Literature Review and Report of a Case

Ali Nosrat, Negar Homayounfar, Kaveh Oloomi

### Different Representations of Vertical Root Fractures Detected by Cone-Beam Volumetric Tomography: A Case Series Report

Mohamed I. Fayad, Paul J. Ashkenaz, Bradford R. Johnson