Editorial

Adding Regenerative Endodontics to the Table of Contents
Ken M. Hargreaves

CONSORT Randomized Clinical Trial

Randomized Clinical Trial of Intraosseous Methylprednisolone Injection for Acute Pulpitis Pain
Khaly Bane, Emmanuel Charpentier, François Bronnec, Vianney Descroix, Fatou Gaye-N’diaye, Abdoul Wahabe Kane, Rafael Toledo, Pierre Machtotou, Jean Azérad

The Effect of Foraminal Enlargement of Necrotic Teeth with the Reciproc System on Postoperative Pain: A Prospective and Randomized Clinical Trial
José Artério Cruz Junior, Marcelo Santos Coelho, Augusto Shoji Kato, Nilton Vivacqua-Gomes, Carlos Eduardo Fontana, Daniel Guimarães Pedro Rocha, Carlos Eduardo da Silveira Bueno

Review Article

Role of Cone-beam Computed Tomography in Diagnosis of Vertical Root Fractures: A Systematic Review and Meta-analysis
Sangeeta Talwar, Shivani Utneja, Ruchika Roongta Nawal, Aishwarya Kaushik, Dhirendra Srivastava, Sukhvinder Singh Oberoy

Clinical Research

Clinical Antibacterial Effectiveness of Root Canal Preparation with Reciprocating Single-instrument or Continuously Rotating Multi-instrument Systems
Mônica A.S. Neves, José C. Provenzano, Isabella N. Rôças, José F. Siqueira

Pulpal Responses to Direct Capping with Betamethasone/Gentamicin Cream and Mineral Trioxide Aggregate: Histologic and Micro–Computed Tomography Assessments
Emad AlShwaimi, Abdul Majed, Aiman A. Ali

Predictive Model of Intraoperative Pain during Endodontic Treatment: Prospective Observational Clinical Study
Guven Kayaoglu, Mügum Gürel, Esma Saricam, Mustafa Necmi Ilhan, Ozlem Ilk

Evaluation of Periapical Lesions and Their Association with Maxillary Sinus Abnormalities on Cone-beam Computed Tomographic Images
Carla A.B.C.M. Nunes, Orlando Aguirre Guedes, Ana Helena G. Alencar, Ove A. Peters, Cynthia R.A. Estrela, Carlos Estrela

Regenerative Endodontics

Exploiting the Bioactive Properties of the Dentin-Pulp Complex in Regenerative Endodontics
Anthony J. Smith, Henry F. Duncan, Aníbal Diogenes, Stephane Simon, Paul R. Cooper


Pulp and Periodontal Regeneration of an Avulsed Permanent Mature Incisor Using Platelet-rich Plasma after Delayed Replantation: A 12-month Clinical Case Study
Harini Priya M, Pavan B. Tambakad, Jaya Naidu

Regenerative Endodontic Treatment of an Immature Necrotic Molar with Arrested Root Development by Using Recombinant Human Platelet-derived Growth Factor: A Case Report
Annie Zhujiang, Sahng G. Kim

Isolation and Characterization of Human Dental Pulp Stem Cells from Cryopreserved Pulp Tissues Obtained from Teeth with Irreversible Pulpitis
Azin Malekfar, Kusum S. Valli, Mohammad Mahboob Kanafi, Ramesh R. Bhonde
Combination of Mineral Trioxide Aggregate and Platelet-rich Fibrin Promotes the Odontoblastic Differentiation and Mineralization of Human Dental Pulp Cells via BMP/Smad Signaling Pathway
Su-Mi Woo, Won-Jae Kim, Hae-Soon Lim, Nam-Ki Choi, Sun-Hun Kim, Seon-Mi Kim, Ji-Yeon Jung

Attachment Ability of Human Apical Papilla Cells to Root Dentin Surfaces Treated with Either 3Mix or Calcium Hydroxide
Pattama Kitikuson, Tanida Srisuwan

Nel-like Molecule 1 Contributes to the Odontoblastic Differentiation of Human Dental Pulp Cells
Mengmeng Liu, Qiang Wang, Ronghua Tang, Rongyu Cao, Xiaoying Wang

The Effects of Endosequence Root Repair Material on Differentiation of Dental Pulp Cells
Jesus Machado, James D. Johnson, Avina Paranjpe

Effects of Novel 3-dimensional Antibiotic-containing Electrospun Scaffolds on Dentin Discoloration
Margaret Louise A. Porter, Eliseu A. Münchow, Maria T.P. Albuquerque, Kenneth J. Spolnik, Anderson T. Hara, Marco C. Bottino

Basic Research

Biology

Osteogenic and Angiogenic Response to Calcium Silicate–based Endodontic Sealers
Fábio Costa, Pedro Sousa Gomes, Maria Helena Fernandes

Characterization of the Protective Role of Regulatory T Cells in Experimental Periapical Lesion Development and Their Chemotactic Manipulation as a Therapeutic Tool
Carolina Favaro Francisco, Andrea Espindola Vieira, Claudia Cristina Biguetti, Andrew J. Glowacki, Ana Paula Favaro Trombone, Ariadne Letra, Renato Menezes Silva, Charles S. Steir, Steven R. Little, Gustavo Pomermaier Garlet

DNA Methylation of MMP9 Is Associated with High Levels of MMP-9 Messenger RNA in Periapical Inflammatory Lesions
Kelma Campos, Carolina Cavalieri Gomes, Luciana Conceição Farias, Renato Menezes Silva, Ariadne Letra, Ricardo Santiago Gomez

Age-related Changes in the Alkaline Phosphatase Activity of Healthy and Inflamed Human Dental Pulp
Eda E. Aslantas, Hatice Dogan Buzoglu, Senem Pinar Karapinar, Zafer C. Cehreli, Sevda Muftuoglu, Pergin Atilla, Yasemin Aksoy

Technology

Assessment of Apical Extrusion during Root Canal Irrigation with the Novel GentleWave System in a Simulated Apical Environment
Karine Charara, Shimon Friedman, Adria Sherman, Anil Kishen, Gevik Malkhassian, Mehrzad Khakpour, Bettina Basrani

Evaluation and Comparison of Occurrence of Tooth Discoloration after the Application of Various Calcium Silicate–based Cements: An Ex Vivo Study
Noushin Shokouhinejad, Mohammad H. Nekoofar, Salma Pirmoazen, Ahmad R. Shamshiri, Paul M.H. Dummer

Effect of a Benzalkonium Chloride Surfactant–Sodium Hypochlorite Combination on Elimination of Enterococcus faecalis
Aleksandr Baron, Kimberly Lindsey, Stephanie J. Sidow, Douglas Dickinson, Augustine Chuang, James C. McPherson

Effect of Root Filling on Stress Distribution in Premolars with Endodontic-Periodontal Lesion: A Finite Element Analysis Study
Sema Belli, Oğuz Eraslan, Gürcan Eshitascioglu

Torsional and Cyclic Fatigue Resistance of a New Nickel-Titanium Instrument Manufactured by Electrical Discharge Machining
Eugenio Pedullà, Fabio Lo Savio, Simona Boninelli, Gianluca Plotino, Nicola M. Grande, Guido La Rosa, Ernesto Rapisarda

Evaluation of Composite Adaptation to Pulpal Chamber Floor Using Optical Coherence Tomography
Nicola Scotti, Camilla Alovisi, Allegra Comba, Gabriele Ventura, Damiano Pasqualini, Federico Grignolo, Elio Berutti