Review Article

**Antibacterial Nanoparticles in Endodontics: A Review**
Annie Shrestha, Anil Kishen

**Association between Systemic Diseases and Apical Periodontitis**
Navid Khalighinejad, M. Reza Aminoshariae, Anita Aminoshariae, James C. Kulild, Andre Mickel, Ashraf F. Fouad

Clinical Research

**The Assessment and Management of External Cervical Resorption with Periapical Radiographs and Cone-beam Computed Tomography: A Clinical Study**
Kreena Patel, Francesco Mannocci, Shanon Patel

**Factors Associated with Apical Periodontitis: A Multilevel Analysis**
Farah Eziana Hussein, Amy Kia Cheen Liew, Roza Anon Ramlee, Dalia Abdullah, Bun San Chong

**Cost-effectiveness of Single- Versus Multistep Root Canal Treatment**
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**How Effective Is Supplemental Intraseptal Anesthesia in Patients with Symptomatic Irreversible Pulpitis?**
Stephen Webster Jr., Melissa Drum, Al Reader, Sara Fowler, John Nusstein, Mike Beck

**Effect of Sodium Bicarbonate Buccal Infiltration on the Success of Inferior Alveolar Nerve Block in Mandibular First Molars with Symptomatic Irreversible Pulpitis: A Prospective, Randomized Double-blind Study**
Masoud Saatchi, Ali Reza Farhad, Naghmeh Shenasa, Saeideh Karimi Haghighi

**Impact of Maxillary First Molar Root Length on the Success Rate of Buccal Infiltration Anesthesia**
Ehsan Moradi Askari, Masoud Parirokh, Nouzar Nashaeae, Hamid Reza Hosseini, Paul V. Abbott

**Heat Shock 70 Protein Genes and Genetic Susceptibility to Apical Periodontitis**
Kanwal Maheshwari, Renato M. Silva, Leticia Guajardo-Morales, Gustavo P. Garlet, Alexandre R. Vieira, Ariadne Letra

**Periapical Microsurgery: Can Ultrasonic Root-end Preparations Clinically Create or Propagate Dentinal Defects?**
Peter Z. Tawil

Regenerative Endodontics

**Regenerative Endodontic Procedures for Traumatized Teeth after Horizontal Root Fracture, Avulsion, and Perforating Root Resorption**
Tarek Mohamed A. Saoud, Sonali Mistry, Bill Kahler, Asgeir Sigurdsson, Louis M. Lin

**Effects of Adenosine Triphosphate on Proliferation and Odontoblastic Differentiation of Human Dental Pulp Cells**
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**Triple Antibiotic Polymer Nanofibers for Intracanal Drug Delivery: Effects on Dual Species Biofilm and Cell Function**
Divya Pankajakshan, Maria T.P. Albuquerque, Joshua D. Evans, Malgorzata M. Kamocka, Richard L. Gregory, Marco C. Bottino

Basic Research

**Biology**

**Capsaicin-sensitive Innervation Modulates the Development of Apical Periodontitis**

**Sodium Hypochlorite Inactivates Lipoteichoic Acid of Enterococcus faecalis by Deacylation**
Sun Woong Hong, Jung Eun Baik, Seok-Seong Kang, Kee-Yeon Kum, Cheol-Heui Yun, Seung Hyun Han

**Association between Odontogenic Conditions and Maxillary Sinus Disease: A Study Using Cone-beam Computed Tomography**
Eduarda Helena Leandro Nascimento, Maria Luiza A. Pontual, Andrea A. Pontual, Deborah Q. Freitas, Danyel E. Cruz Perez, Flávia M.M. Ramos-Perez

**Osteoprotegerin-Knockout Mice Developed Early Onset Root Resorption**
Yi Liu, Haiming Du, Yunfei Wang, Mengmeng Liu, Shijian Deng, Linlin Fan, Lili Zhang, Yao Sun, Qi Zhang
Biocompatibility Evaluation of EndoSequence Root Repair Paste in the Connective Tissue of Rats
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Issam Khalil, Alfred Naaman, Josette Camilleri

Cyclic Fatigue Resistance of Reciproc, WaveOne, and WaveOne Gold Nickel-Titanium Instruments
Taha Özyürek

Scouting Ability of 4 Pathfinding Instruments in Moderately Curved Molar Canals

Uncontrolled Removal of Dentin during In Vitro Ultrasonic Irrigant Activation in Curved Root Canals
Anastasios Retsas, Anastasios Koursoumis, Nestor Tzimpoulas, Christos Boutsioukis

Tuomas K. Niemi, Melissa A. Marchesan, Adam Lloyd, Robert J. Seltzer

Comparison of Cyclic Fatigue Resistance of ProGlider and One G Glide Path Files
Gülşah Uslu, Taha Özyürek, Uğur İnan