

Clinical Research

[Healing of Apical Periodontitis in Patients with Inflammatory Bowel Diseases and under Anti-tumor Necrosis Factor Alpha Therapy](#)

Elisabetta Cotti, Silvia Mezzena, Elia Schirru, Olimpia Ottonello, Michela Mura, Francesca Ideo, Marta Susnik, Paolo Usai

[Immunohistochemical Analysis of Cyclooxygenase-2 and Tumor Necrosis Factor Alpha in Periapical Lesions](#)

Pâmella Recco Álvares, José Alcides Almeida de Arruda, Leni Verônica Oliveira Silva, Leorik Pereira da Silva, George João Ferreira do Nascimento, Marcia Maria Fonseca da Silveira, Ana Paula Veras Sobral

[Cone-beam Computed Tomographic Analysis of Canal Transportation and Centering Ability of Single-file Systems](#)

Seyed Mohsen Hasheminia, Alireza Farhad, Mahnaz Sheikhi, Parisa Soltani, Seyedeh Sareh Hendi, Masoumeh Ahmadi

Regenerative Endodontics

[Revascularization-associated Intracanal Calcification: A Case Report with an 8-year Review](#)

Bill Kahler, Sam L. Kahler, Louis M. Lin

[Effect of Residual Dental Pulp Tissue on Regeneration of Dentin-pulp Complex: An *In Vivo* Investigation](#)

Mahmoud Torabinejad, Arin Alexander, Seyed Aliakbar Vahdati, Anupama Grandhi, David Baylink, Shahrokh Shabahang

[Comprehensive Characterization of 2 Immature Teeth Treated with Regenerative Endodontic Procedures](#)

Obadah Austah, Ruchika Joon, Weston M. Fath, Vanessa Chrepa, Anibal Diogenes, Mostafa Ezeldeen, Eduardo Couve, Nikita B. Ruparel

[Influence of the Vehicle and Antibiotic Formulation on Cytotoxicity of Triple Antibiotic Paste](#)

Gisele Faria, Elisandra Márcia Rodrigues, Hernán Coaguila-Llerena, Ana Livia Gomes-Cornélio, Renan Rodrigues Neto Angélico, Maristela Soares Swerts Pereira, Mario Tanomaru Filho

Basic Research

Biology

[Metformin Ameliorates Periapical Lesions through Suppression of Hypoxia-induced Apoptosis of Osteoblasts](#)

Eddie Hsiang-Hua Lai, Cheng-Ning Yang, Sze-Kwan Lin, Han-Wei Wang, Sang-Heng Kok, Chi-Yuan Hong, I-Hsuan Su, Hsiang Yang, Jenny Zwei-Chieng Chang

[Pentraxin 3 Modulates the Inflammatory Response in Human Dental Pulp Cells](#)

Yeon Kim, Jin-Sung Park, Hyun-Joo Park, Mi-Kyoung Kim, Yong-Il Kim, Soo-Kyung Bae, Hyung Joon Kim, Chul-Ho Jeong, Moon-Kyoung Bae

Technology

[Real-time Intracanal Temperature Measurement During Different Obturation Techniques](#)

David Donnermeyer, Edgar Schäfer, Sebastian Bürklein

[Comparison between Single-file Rotary Systems: Part 2—The Effect of Length of the Instrument Subjected to Cyclic Loading on Cyclic Fatigue Resistance](#)

Adham A. Azim, Mohamed Tarrosh, Katharina A. Azim, Lucila Piasecki

[Root Reinforcement after Obturation with Calcium Silicate-based Sealer and Modified Gutta-percha Cone](#)

Sittichoke Osiri, Danuchit Banomyong, Vanthana Sattabanasuk, Kallaya Yanpiset

[Influence of Different Angles of File Access on Cyclic Fatigue Resistance of Reciproc and Reciproc Blue Instruments](#)

Eugenio Pedullà, Giusy Rita Maria La Rosa, Simona Boninelli, Oriana Gaetana Rinaldi, Ernesto Rapisarda, Hyeon-Cheol Kim

[In Vitro Evaluation of a Novel Root Canal Endoscope for Visualizing the Apex of Curved Root Canal Models and an Extracted Tooth](#)

Shinji Yoshii, Masataka Fujimoto, Masahiro Okuda, Chiaki Kitamura

[Accuracy of High-resolution Small-volume Cone-beam Computed Tomography in Detecting Complex Anatomy of the Apical Isthmi: Ex Vivo Analysis](#)

Elen de Souza Tolentino, Pablo Andrés Amoroso-Silva, Murilo Priori Alcalde, Heitor Marques Honório, Lilian Cristina Vessoni Iwaki, Izabel Regina Fischer Rubira-Bullen, Marco Antônio Húngaro-Duarte

[Mechanical Properties of Orifice Preflaring Nickel-titanium Rotary Instrument Heat Treated Using T-Wire Technology](#)

Maamoun Ataya, Jung-Hong Ha, Sang Won Kwak, Ibrahim H. Abu-Tahun, Rashid El Abed, Hyeon-Cheol Kim

[A Micro-computed Tomographic Evaluation of the Accuracy of 3 Electronic Apex Locators in Curved Canals of Mandibular Molars](#)

Lucila Piasecki, Paulo José dos Reis, Eduardo Inocente Jussiani, Avacir Casanova Andrello

[Impact and Fracture Strength of Simulated Immature Teeth Treated with Mineral Trioxide Aggregate Apical Plug and Fiber Post Versus Revascularization](#)

Davoud Jamshidi, Hamed Homayouni, Nima Moradi Majd, Samaneh Shahabi, Armita Arvin, Baharan Ranjbar Omid

Case Report/Clinical Techniques

[Virtual Simulation of Autotransplantation Using 3-dimensional Printing Prototyping Model and Computer-assisted Design Program](#)

Soram Oh, Sehoon Kim, Ha Seon Lo, Joo-Young Choi, Hyun-Jung Kim, Gil-Joo Ryu, Sun-Young Kim, Kyoung-Kyu Choi, Duck-Su Kim, Ji-Hyun Jang