Review Article

The Effect of Photodynamic Therapy in Root Canal Disinfection: A Systematic Review
Vanessa Chrepa, Georgios A. Kotsakis, Tom C. Pagonis, Kenneth M. Hargreaves

Clinical Research

Microbial Diversity in Persistent Root Canal Infections Investigated by Checkerboard DNA-DNA Hybridization
C.F. Murad, L.M. Sassone, M. Faveri, R. Hirata, L. Figueiredo, M. Feres

An Ex Vivo Comparison of Pressures within Dental Pulp Space Using Conventional Anesthetic Technique Versus Needle-mounted Obturator
S. Lee Grubbs, Larry W. Alley, Paul D. Eleazer

Comparison of Endodontic Diagnosis and Treatment Planning Decisions Using Cone-beam Volumetric Tomography Versus Periapical Radiography
Jonathan Ee, Mohamed I. Fayad, Bradford R. Johnson

Analysis of C-shaped Canals by Panoramic Radiography and Cone-beam Computed Tomography: Root-type Specificity by Longitudinal Distribution
Alper Sinanoglu, Dilek Helvacigolu-Yigit

Assessment of the Separation Incidence of Reciprocating WaveOne Files: A Prospective Clinical Study
Rodrigo Sanches Cunha, Alanna Junaid, Pablo Ensinas, William Nudera, Carlos Eduardo da Silveira Bueno

Basic Research

Biology

Iloprost Up-regulates Vascular Endothelial Growth Factor Expression in Human Dental Pulp Cells In Vitro and Enhances Pulpal Blood Flow In Vivo
Chalida Nakalekha Limjeerajuras, Thanaphum Osathanon, Jeeranan Manokawinchoke, Prasit Pavasant

White Mineral Trioxide Aggregate Induces Migration and Proliferation of Stem Cells from the Apical Papilla
Robert Schneider, G. Rex Holland, Daniel Chiego, Jan C.C. Hu, Jacques E. Nör, Tatiana M. Botero

Biodentine Induces Human Dental Pulp Stem Cell Differentiation through Mitogen-activated Protein Kinase and Calcium-/Calmodulin-dependent Protein Kinase II Pathways
Zhirong Luo, Meetu R. Kohli, Qing Yu, Syngcuk Kim, Tiejun Qu, Wen-xi He

WNT6 Promotes the Migration and Differentiation of Human Dental Pulp Cells Partly through c-Jun N-terminal Kinase Signaling Pathway
Ruimin Li, Chenglin Wang, Juan Tong, Yingying Su, Yunfeng Lin, Xuedong Zhou, Ling Ye

Technology

Comparison of Pulp Stump Wounds Created by ProFile Rotary Root Canal Instruments and Small-diameter Fine Diamond Burs
Taylor T. Nelson, Paul D. Eleazer, Lance C. Ramp

Influence of Acidic Environment on Properties of Biodentine and White Mineral Trioxide Aggregate: A Comparative Study
Amr M. Elmaghy

Mercury Intrusion Porosimetry and Assessment of Cement-dentin Interface of Anti–washout-type Mineral Trioxide Aggregate
L.M. Formosa, D. Damidot, Josette Camilleri

Influence of Ultrasonic Activation of 4 Root Canal Sealers on the Filling Quality
Bruno Martini Guimarães, Pablo Andrés Amoroso-Silva, Murilo Priori Alcalde, Marina Angélica Marciano, Flaviana Bombarda de Andrade, Marco Antonio Hungaro Duarte

Evaluation of Compressive Strength of Hydraulic Silicate-based Root-end Filling Materials
Ryan M. Walsh, Karl F. Woodmansey, Gerald N. Glickman, Jianing He
Torque and Force Induced by ProTaper Universal and ProTaper Next during Shaping of Large and Small Root Canals in Extracted Teeth
Ana Arias, Rupinderpal Singh, Ove A. Peters
Antibacterial and Anti-biofilm Activity of AH Plus with Chlorhexidine and Cetrimide
M. Estela Bailón-Sánchez, Pilar Baca, Matilde Ruiz-Linares, Carmen María Ferrer-Luque
Comparison of 2 Canal Preparation Techniques in the Induction of Microcracks: A Pilot Study with Cadaver Mandibles
Ana Arias, Yoon H. Lee, Christine I. Peters, Alan H. Gluskin, Ove A. Peters
Comparison of the Surface Hardness among 3 Materials Used in an Experimental Apexification Model under Moist and Dry Environments
Victor Caronna, Van Himel, Qingzhao Yu, Jian-Feng Zhang, Kent Sabey
Kinematics of 2 Reciprocating Endodontic Motors: The Difference between Actual and Set Values
Aleš Fidler
Cyclic Fatigue Resistance of RaCe and Mtwo Rotary Files in Continuous Rotation and Reciprocating Motion
Sekar Vadhana, Balasubramanian SaravanaKarthikeyan, Suresh Nandini, Natanasabapathy Velmurugan
Lincoln de Campos Fruchi, Ronald Ordinola-Zapata, Bruno Cavalini Cavenago, Marco Antonio Hungaro Duarte, Carlos Eduardo da Silveira Bueno, Alexandre Sigrist De Martin
Influence of the Dentinal Wall on the pH of Sodium Hypochlorite during Root Canal Irrigation
Ricardo Gomes Macedo, Noemi Pascual Herrero, Paul Wesseling, Michel Versluis, Luc van der Sluis
Incidence of Apical Crack Initiation and Propagation during the Removal of Root Canal Filling Material with ProTaper and Mtwo Rotary Nickel–Titanium Retreatment Instruments and Hand Files
Hüseyin Sinan Topçuğlu, Salih Düzgün, Bertan Kesim, Öznur Tuncay

Case Report/Clinical Techniques

Periradicular Regenerative Surgery in a Maxillary Central Incisor: 7-year Results Including Cone-beam Computed Tomography
Stella Kourkouta, Graham C. Bailey
Fusion of Central Incisors with Supernumerary Teeth: A 10-year Follow-up of Multidisciplinary Treatment
Nelly Steinbock, Ronald Wigler, Arieh Y. Kaufman, Shaul Lin, Imad Abu-El Naaj, Dror Alzenbud

Society News

Associate Registry
Donor Honor Roll

Frontmatter

Editorial Board
Table of Contents