Editorial

Insights into the January 2020 Issue of the Journal of Endodontics

Review Article

Genetic Polymorphism and Expression of Matrix Metalloproteinases and Tissue Inhibitors of Metalloproteinases in Periapical Lesions: Systematic Review
Ariane Ferraz Corrêa Torres, Leonardo Santos Antunes, Natália Felizardo de Oliveira, Erika Calvano Küchler, Cinthya Cristina Gomes, Lívia Azeredo Alves Antunes

Risk of Bias and Its Impact on Intervention Effect Estimates of Randomized Controlled Trials in Endodontics
Jianru Yi, Haibo Li, Yu Li, Xiaobing Li, Wei Zheng, Zhihe Zhao

Clinical Research

Comparing Quality of Life of Patients Undergoing Root Canal Treatment or Tooth Extraction
Emma Wigsten, Thomas Kvist, Peter Jonasson EndoReCo, Thomas Davidson

Incidence of Altered Sensation after Mandibular Premolar and Molar Periapical Surgery
Anshul Mainkar, Qiang Zhu, Kamran Safavi

The Influence of Missed Canals on the Prevalence of Periapical Lesions in Endodontically Treated Teeth: A Cross-sectional Study
Abayomi Omokeji Baruwa, Jorge N.R. Martins, João Meirinhos, Beatriz Pereira, José Gouveia, Sérgio A. Quaresma, Adam Monroe, António Ginjeira

Incidence of Middle Mesial Canals Based on Distance between Mesial Canal Orifices in Mandibular Molars: A Clinical and Cone-beam Computed Tomographic Analysis
Eric M. Weinberg, Alejandro E. Pereda, Sonam Khurana, Priti P. Lotlikar, Carla Falcon, Craig Hirschberg

Regenerative Endodontics

Regenerative Endodontic Treatment as a Biologically Based Approach for Non-Surgical Retreatment of Immature Teeth
Jerome J. Cymerman, Ali Nosrat

Effect of the Periapical “Inflammatory Plug” on Dental Pulp Regeneration: A Histologic In Vivo Study
Samer H. Zaky, Qahtan AlQahtani, Jingming Chen, Avinash Patil, Juan Taboas, Elia Beniash, Herbert Ray, Charles Sfeir

Potential of Treated Dentin Matrix Xenograft for Dentin-Pulp Tissue Engineering
Hengameh Bakhtiar, Amir Mazidi, Saeed Mohammadi-Asl, Sadegh Hasannia, Mohammad Reza Ellini, Mohammad Pezeshki-Modaress, Seyed Naser Ostad, Kerstin Galler, Amir Azarpazhooh, Anil Kishen
Basic Research

Biology

Intracanal Metformin Promotes Healing of Apical Periodontitis via Suppressing Inducible Nitric Oxide Synthase Expression and Monocyte Recruitment
Han-Wei Wang, Eddie Hsiang-Hua Lai, Cheng-Ning Yang, Sze-Kwan Lin, Chi-Yuan Hong, Hsiang Yang, Jenny Zwei-Chieng Chang, Sang-Heng Kok

The Use of Histidine-tryptophan-ketoglutarate Solution as a New Storage Medium for the Avulsed Tooth
Tae Jun Oh, Ok Hyung Nam, Mi Sun Kim, Hyo-Seol Lee, Yu-Shik Hwang, Sung Chul Choi

Glucose Transporter 2 and 4 Are Involved in Glucose Supply during Pulpal Wound Healing after Pulpotomy with Mineral Trioxide Aggregate in Rat Molars
Aiko Tohma, Naoto Ohkura, Kunihiko Yoshida, Ryosuke Takeuchi, Nagako Yoshida, Naoki Edanami, Mari Shirakashi, Razi Saifullah Ibn Belal, Hayato Ohshima, Yuichiro Noiri

Dentin Matrix Protein 1 Compensates for Lack of Osteopontin in Regulating Odontoblastlike Cell Differentiation after Tooth Injury in Mice
Kotaro Saito, Mitsushiro Nakatomi, Hayato Ohshima

Technology

Volume of Voids in Retrograde Filling: Comparison between Calcium Silicate Cement Alone and Combined with a Calcium Silicate–based Sealer
Jaeheon Jung, Sunil Kim, Euiseong Kim, Su-Jung Shin

Higher Speed and No Glide Path: A New Protocol to Increase the Efficiency of XP Shaper in Curved Canals—An In Vitro Study
Mariel Webber, Lucila Piasecki, Eduardo Inocente Jussiani, Avacir Casanova Andrello, Paulo José dos Reis, Katharina A. Azim, Adham A. Azim

Comparative Study of Four Endodontic File Systems to Assess Changes in Working Length during Root Canal Instrumentation and the Effect of Canal Curvature on Working Length Change
Michelle Tien, Hermawan Tjoa, Maggie Zhou, Paul V. Abbott

Case Report/Clinical Techniques

Modified Apexification Procedure for Immature Permanent Teeth with a Necrotic Pulp/Apical Periodontitis: A Case Series
Kamolthip Songtrakul, Talayeh Azarpajouh, Matthew Malek, Asgeir Sigurdsson, Bill Kahler, Louis M. Lin