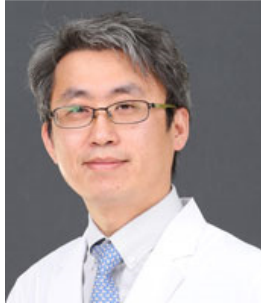


practice especially for East Asian.



Dr. Hyeon-Cheol Henry Kim

Dr. Kim graduated from Pusan National University School of Dentistry. He finished the Resident program at the Pusan National University Hospital and got his Ph.D degree in the same University. He started his professor position in the Department of Conservative Dentistry from 2004 and presently he is the Chair in the department and also in charge of Vice Dean for Students Affair at the School of Dentistry.

PROFESSIONAL QUALIFICATIONS

Visiting professor at University of Minnesota Bio-Engineering Laboratory, School of Dentistry, University of Minnesota, Minneapolis, MN, USA (2008)

Council, The Korea Food and Drug Administration (2011-2013)

Director, Department of Education and Research, Pusan National University Dental Hospital (2010.9-2014.8)

Director, Dental Research Institute, Pusan National University Dental Hospital (2013.2-2015.1)

■ ACTIVITIES IN ACADEMIC SOCIETY

Director, International Relationship, Korean Academy of Conservative Dentistry (2011-2013)

Director, Scientific Committee, Korean Academy of Endodontics (2009-2014)

Treasurer, Korean Academy of Endodontics (2014-2015)

Director, Scientific Committee, Korean Academy of Microscope Dentistry (2013-present)

Director, Communication department, Korean Academy of Endodontics (2015-present)

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■ Main Research Scope

NiTi endodontic instruments, Fracture resistance, Fatigue analysis, Endodontic materials, Clinical endodontics

Abstract Paper:

Essential and **E**fficient **E**ndodontic Procedures: Material selection and usage for canal shaping and 3-dimensional obturation

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After adoption of the nickel-titanium (NiTi) alloy to the endodontic instrument, there have been numerous trials to make better instruments having superior mechanical properties and safety. Especially, by using the NiTi files in a motor driven way, the clinical efficiency was much more enhanced and these systems have brought a big step toward “**efficient**” practice of endodontic procedure. Especially, the reciprocating NiTi files have brought a further step to “**convenient**” practice as well as the efficiency. These systems made it possible to shape the root canals with minimal number of instruments. Some heat-treated instruments recently introduced may preserve the root dentin integrity better as well as keep the original canal anatomy well. Clinicians need to understand the characteristics of these instrument systems which may bring different results of root canal shapes including potential aberrations and they also need to give sufficient efforts for cleaning procedure to compensate the minimized shaping procedures.

Following the cleaning and shaping of the canal lumen, “**3-dimensional root canal sealing**” is an “**essential**” procedure to guarantee successful post-endodontic prognosis. Clinicians need to understand proper application of the filling technique with the selection of optimal gutta-percha cone.

This lecture will give an insight based on research evidences for the endodontic instruments as well as their practical usage with minimal fracture risk and better clinical prognosis. And the practical way to select the master cone and “3-dimensional root canal obturation technique” will be discussed.