Craig Barrington, DDS, discusses his technique for capturing high-definition images

By Fred Michmershuizen, Managing Editor

With his high-definition photography of complex root canal systems, Dr. Craig Barrington, who practices dentistry in Waxahachie, Texas, is developing quite a name for himself. Just check out his presence on Facebook, craiggbarringtondds. In an interview with Endo Tribune, Barrington talks about how he captures these high-definition endodontic images and how he uses them to increase his knowledge and help improve the level of care he provides to his patients.

Please tell our readers a little bit about yourself and your dental practice.

I graduated summa cum laude from the University of Texas Health Science Center in San Antonio in 1996. I am a general dentist in Waxahachie, Texas. I have been in my current location for 20 years.

What do you like best about practicing dentistry?

I most enjoy the science, the biology and the ability to interact with, affect and watch the human body function and heal. I appreciate the ability to solve problems and the ability to work on problems that are yet to be solved. I like being a part of a "past, present and future" continuum that is the overall profession of dentistry. I enjoy having the ability to affect an individual person, from patient to fellow practitioner to dental student, all the way up to having the ability to have a positive effect on humanity across the globe.

Who influenced you most in your career?

First, I would thank Dr. Joel B. Alexander. Who influenced you most in your career?

Secondly, I would thank Dr. Terry Parnavak. After much awareness, pursuit of and concentration on the topic of mentorship, I certainly believe he is the best doctor alive today. He has done much for our profession from a philosophical standpoint to the actualities of clinical health care. He sees the value in this tooth clearing and diaphonization project I am involved in and consistently has provided more support and encouragement than anyone else. He has kept me motivated even if it is just by simply saying, "Wow, that result is amazing." I can’t say enough about what he has done for me personally or in my career as my friend and mentor. I continue to learn from him daily, and I hope that somewhere along the way, I reciprocate some of the support he has given me over the years.

You have become known for your high-definition photography of the root canal anatomy. How did you become interested in this area?

That too goes back to Dr. Alexander and Dr. Parnavak. Both of these doctors influenced me to recall my work in endodontics and truly take a scientific approach to the question of whether endodontics actually works and whether it actually works in my hands. After recalling many of my own cases, I started to see failures and problems that I was not satisfied with. I started to postoperatively evaluate my work and found that there were clinical aspects I could change to improve my outcomes. It was via the internet that I met Dr. Arnaldo Castelaucci. After the interactions we had, I saw the cover of his textbook. The tooth on the cover put me in awe. This was the first "cleared tooth" I had ever seen. It is from there that my interest in clearing teeth originated. I just had to figure out what was going on and how and why it worked. Fifteen years later, I am still manipulating processes in the diaphonization of human teeth in search of the "answers." I have a patent pending in the clearing process, and the knowledge it has provided has become one of the most valuable tools in pre-operative and post-operative evaluation of the internal anatomy of human teeth.

Can you tell our readers a little bit about how you go about capturing these images? Is it must take some technical skill.

The photography is actually not difficult. It is oil immersion oblique illumination light microscopy, which has been done in histology labs for years. It is, however, a new realization in this area for dentistry. In dentistry, we are familiar with the study of microscopic histologic sections. Teeth, on the other hand, are gross histologic specimens that can understandably be seen via the naked eye; however, viewing of the internal anatomic structures is greatly enhanced with microscopic evaluation. Any photographs of the teeth I work with are simply obtained through my "artistic" arrangement of the specimen in either a visually interesting position or in what I would consider an educational in-

See BARRINGTON, page B2

The immense variability of human tooth anatomy

Dr. Craig Barrington uses oil immersion oblique illumination light microscopy to capture high-resolution images of root canal anatomy. Photos/Provided by Craig Barrington, DDS
Carla Y. Falcon, DDS, MDS, is the recipient of the Foundation for Endodontics 2016 Endodontic Educator Fellowship Award. Designed to encourage a career in endodontic academics, the Educator Fellowship Award provides $250,000 over 2016 to 2018 to Dr. Falcon, “Thanks to generous support from our sponsor, Edge Endo, the foundation is proud to award our flagship grant for 2016 to Dr. Falcon,” said Foundation for Endodontics President Dr. Peter A. Mor- gan. “Dr. Falcon has shown great commit- ment to the specialty of endodontics, and as an educator will instill in her students the critical thinking needed for success- ful endodontic diagnosis and treatment.”

Falcon is entering her second year as an assistant professor in the Department of Endodontics at Rutgers, where she also completed her general and advanced endodontic training. She applies her critical mind and bachelor’s degree in engineer- ing to endodontics regularly, she recog- nizes that understanding the biological rationale for endodontic treatment is as important as clinical expertise.

"This is what excites me most about ed- ucation," Falcon wrote in her fellowship application. "Fostering and developing the philosophy and methodology of end- odontic treatment that the students will take forward beyond graduation and that will continue to govern their endodontic therapy during their dental lifetime."

Falcon’s strong interest in teaching was evident throughout her education as she tutored in the campus writing center during her undergraduate years and worked as a clinical floor instructor in her resi- dency. As the Edge Endo Endodontic Edu- cator Fellow, Falcon will be able to balance her dreams of a career in full-time aca- demics with the financial practicalities of her life.

"Edge Endo is excited and humbled to know that Dr. Falcon was chosen as the 2016 recipient of the Foundation for End- odontics Educator Fellowship Award," said Dr. Charles J. Goodis, CEO of Edge Endo. "Dr. Falcon embodies the enthusi- asm that I feel, and still feel, in my endo-odontic practice. We salute her in her on- going teaching efforts and look forward to a long relationship with the Founda- tion for Endodontic Educator Fellowship Awards."

Since its creation in 2001, the Founda- tion for Endodontics’ Endodontic Edu- cator Fellowship Award has recognized endodontic educators and the critical role they play in strengthening the specialty. A list of past recipients is available online, at www.aae.org/aae-foundation/funding/ fellowship-award-recipients.aspx.

About the Foundation for Endodontics

The mission of the Foundation for End- odontics is to support endodontists by providing resources and funding for re- search, education, public awareness and access to care. The Foundation for End- odontics supports saving natural teeth for all through the efforts of endodontic specialists. More information about the Foundation for Endodontics is available online at www.aae.org/foundation.

About Edge Endo

Edge Endo’s mission is to deliver endo-odontic products and solutions at a substantially lower cost, which benefits practitioners and patients everywhere.

The company is dedicated to the pursuit of bringing leading-edge products to the dental industry and revolutionizing endo-odontic practices around the world. Edge Endo was founded in 2012 and is head- quartered in Albuquerque, N.M.

(Craig Barrington)
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Dr. Charles Goodis talks root canals with TV host Kathy Ireland

Edge Endo CEO Dr. Charles Goodis is featured on the award-winning global TV show “Worldwide Business with Kathy Ireland.” The segment’s topic is the introduction of superior endodontic supplies at half the cost.

Edge Endo’s mission is to deliver endodontic products and solutions at a substantially lower cost, which benefits practitioners and patients everywhere. The company is dedicated to the pursuit of bringing leading-edge products to the dental industry and revolutionizing endodontic practices around the world. Edge Endo was founded in 2012 and is headquartered in Albuquerque, N.M.

Goodis says that dentists and endodontists frequently face challenges when performing root canals, which is why Edge Endo has developed innovative instruments that help root canal treatments go much more smoothly.

He explains, “The root canal system can have a lot of twists and turns, including 90-degree bends and S-shaped curves. These complex shapes can make root canals long and sometimes arduous for the patient. Edge Endo addresses these issues with advanced designs, by changing the geometry of the instrument, advanced metallurgy and our proprietary heat treatment method that far exceeds any competitors to the market.”

JL Haber, vice president of “Worldwide Business with Kathy Ireland,” said, “Edge Endo’s innovative ideas and instruments have transformed not only the lives of dental patients around the world but also transformed the entire dental industry as a whole. We have loved seeing their amazing progress over the years, and we’re so proud to be part of their inspiring journey. We couldn’t be more excited to have Edge Endo on our show.”

More information about Edge Endo’s endodontic instruments is available online, at EdgeEndo.com. Check edgeendo.com/tvwwb for the TV program’s segment date.

About ‘Worldwide Business with Kathy Ireland’

“Worldwide Business with Kathy Ireland” is a weekly business television program featuring real-world insights from corporate executives all over the globe. It can be viewed on Fox Business Network as part of its sponsored programming lineup, as well as internationally to more than 50 countries on Bloomberg International. Visit tvwwb.com for detailed airing schedules — or check your local listings.

(Source: Edge Endo)

DENTSPLY Maillefer introduces Ready•Steel pre-sterilized hand files

DENTSPLY Maillefer recently announced the launch of a new line of sterile endodontic stainless-steel hand files. Ready•Steel™ files are packaged pre-sterilized in perforated blister packs for single-patient use.

Endodontic files can show signs of wear during use, and such wear increases dramatically with multiple uses. Using a file just once reduces the risk of breaking and increases patient safety by maintaining cutting efficiency. When a dentist uses a pre-sterilized file just once, the risk of cross-contamination is greatly diminished and cost savings are realized by eliminating the need to clean, sterilize and catalog files.

Ready•Steel files are sold in packs of six and include the following:

- Flexofiles®
- Senseus® Flexofiles®
- K-File
- C+ File
- Hedstrom File
- K-Reamer

Ready•Steel files, available from DENTSPLY Maillefer, are packaged pre-sterilized in perforated blister packs for single-patient use. Photo/DENTSPLY Maillefer

More information on Ready•Steel is available online, at www.maillefer.com. To order, call (800) 924-7393 in the U.S. or contact your preferred distributor representative. Dentsply Maillefer North America is a wholesale division for select endodontic products within Dentsply Sirona.

About Dentsply Sirona

Dentsply Sirona is one of the world’s largest manufacturers of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. The company develops, manufactures and markets comprehensive solutions, including dental and oral health products as well as other consumable medical devices under a portfolio of brands.

As The Dental Solutions Company™, Dentsply Sirona’s products aim to provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dentistry.

Dentsply Sirona’s global headquarters is located in York, Pa., and the international headquarters is in Salzburg, Austria. The company’s shares are listed in the United States on NASDAQ under the symbol XRAY. Visit www.dentsplysirona.com for more information.

(Source: DENTSPLY Maillefer)
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Study of GentleWave System shows ‘extremely high’ healing rates

Sonendo Inc. — the Laguna Hills, Calif.-based developer of a breakthrough technology that offers an alternative to conventional root canal therapy — recently announced that clinical results using its GentleWave® System were reported in the print and online issues of the Journal of Endodontics. The study can be found online, at www.jendodon.com/article/ S0099-2399(16)30196-0/abstract.

The work was led by Prof. Asgeir Sigurdsson, cand, Odont., DDS, MS, Cert End (UNC), chairman of endodontics at the University of New York College of Dentistry, who stated, “This study strongly indicates that the GentleWave System does what it was intended to do, it cleans and disinfects the root canal space in a predictable and consistent way resulting in peritapical healing rates that are extremely high in this study. Most importantly, though, is the fact that the system does this automatically and with maximal preservation of tooth and root structure.”

Chris Rabbitt, chief commercial officer of Sonendo, stated, “We applaud the investigators in this study for their rigor in examining how the GentleWave System can offer expedited healing rates in root canal therapy through improved cleaning, disinfection and preservation of natural tooth morphology. We are compiled to reference this data as we move toward broader commercialization of the GentleWave System and ultimately deliver on our mission of ‘Saving Teeth Through Sound Science.’”

Bjarne Bergheim, president and CEO of Sonendo, also stated, “Sonendo is committed to improving care for patients. We are therefore excited about this study. The GentleWave System enables improved healing and a cumulative success rate of 97.3 percent. Over the past century, little has changed in root canal therapy. We are pleased that the GentleWave System is finally giving clinicians and their patients a better alternative than conventional root canal therapy.”

Glenn was recently named chief financial officer of Armetheon Corp., a privately held, San Francisco Bay Area specialty biopharmaceutical company. Prior to this, he served as chief financial officer of publicly traded Solta Medical, where he played a key role in the identification, negotiation and structuring of several acquisitions, public equity offerings and debt financings and assisted in the company’s strategic acquisition by Valeant Pharmaceutical.

Glenn earned his MBA in finance from Santa Clara University and his BS in business administration from the University of Nevada.

“Sonendo is at an exciting stage in the company’s pursuit of changing the standard of care for root canal therapy,” Glenn said. “I’m excited to join the Sonendo organization and help realize the value of this innovative technology.”

About Sonendo

Sonendo is a privately held, venture-backed company developing technologies that aim to transform dentistry by “Saving Teeth Through Sound Science.” The first commercially available product from Sonendo, the GentleWave System, available in the U.S., shows significant improvements in clinical efficacy and treatment efficiency when compared to conventional root canal techniques.1-3

More information is available online, at www.sonendo.com.

References


Photo/Provided by Sonendo

A study has been published in the Journal of Endodontics on 12-month healing rates using Sonendo’s GentleWave System as an alternative to standard root canal therapy. Photo/Provided by Sonendo

CJM Engineering offers Munce Discovery Burs

available from CJM Engineering, Munce Discovery Burs™ are designed to be the answer to canals/canals, uncovering hidden canals, the isthmus and cement-line dissection around posts. The long, narrow yet stiff shafts are designed to provide an excellent view corridor and ensure positive control, with the familiar tactile feedback of round burs.

Unlike ultrasonics, Munce Discovery Burs are heatless, not prone to spontaneous breakdown and create a more readable surface. The 31 mm Shallow Troughers and the original 34 mm Deep Troughers have color-coded head sizes, in 1/4, 1, 2, 3 and 4.

The 31 mm #6 Endodontic Cariesectomy bur assists with caries removal from deep within the access cavity and from the internal aspects of crown margins.

Dr. C John Munce invented Munce Discovery Burs in 2004 after he noticed a lack of an economical and efficient alternative to ultrasonic tips. Today, he provides the burs to clinicians around the globe via his family-owned company, CJM Engineering. The company was founded in 1997 with Munce’s first patented invention, the Root Canal Projector.

Munce enjoys lecturing worldwide on topics related to creative management strategies for endodontic complexities, and he has contributed to numerous textbooks, most recently as lead author of the “Preparation for Treatment” chapter in the soon-to-be-released seventh edition of Ingle’s Endodontics. He is a diplomate of the American Board of Endodontics and an endodontic faculty member at both Loma Linda University and USC schools of dentistry.

(Source: CJM Engineering)

Munce Discovery Burs are designed to provide an excellent view corridor and ensure positive control, with the familiar tactile feedback of round burs. Photo/Provided by CJM Engineering
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