Striving for perfection

The theme of the upcoming AAE meeting in Washington, DC, is “Striving for Perfection.” What a great title for an annual meeting and life philosophy. One of the aspects we enjoy the most about having six partners at Commonwealth Endodontics is the impromptu discussions on treatment planning and patient management that have helped us as we strive for perfection.

Just over a year ago, we added cone beam computed tomography (CBCT) to our office. Although we knew that it would be an important tool to have at our disposal, we were not sure of the benefits it would offer. After all, we have been providing top level care for over 15 years without a CBCT. “How would a CBCT really improve our patient care?” was the lingering question.

Like other important advances that have specifically benefited the specialty of endodontics, the CBCT is considered an indispensable tool for treatment. Although the CBCT has value in general practice and other dental specialties, its impact will likely be the greatest on endodontics. Having the ability to appreciate the tooth in three dimensions revolutionizes patient care. No longer are we wholly dependent on a static two-dimensional image that provides an incomplete picture. Finally, we can see the tooth in its true form.

One immeasurable advantage of the CBCT is how it provides a platform for patient discussions. Unlike two-dimensional static radiography, we are able to move throughout a tooth and surrounding tissues to help tell a story. The story can be about a cracked tooth where the patient can now see the resulting bone loss at the level that the crack propagates. The story can be about a periapical radiolucency that was obscured by the maxillary sinus. The story can be about how exquisitely the resorative defect really is. Ultimately, the CBCT empowers the patient to make better informed treatment decisions. The conversation changes from “We can access your tooth and see if we can locate another canal” to “The canal right there needs to be located.”

The CBCT has made treatment, retreatment, and apicoectomies more predictable. It has also made the choice of extraction and replacement more clear. We have been able to save our patients money, time, and have spared them postoperative discomfort by being able to make more accurate and appropriate diagnoses with CBCT imaging.

The AAE recommends the use of CBCT imaging for a variety of purposes. These uses include evaluating canal and root morphology, diagnosis of periapical and non-endodontic pathology, intraoperative and postoperative assessment, root resorption, trauma, pre-surgical treatment planning, and dental implant treatment planning.

We ultimately chose the Orthophos® XG 3D by Sirona. This unit provides options for both small view and mid-size views. The small view provides 100-micron slices of a sextant for endodontic evaluation. The voxel size for both the mid and small views are well below the AAE-recommended maximum limit for endodontic evaluation. Our mid-size views have been requested by general dentists and specialists alike who do not have CBCT imaging capabilities in their offices. They typically prefer the mid-size view because they would prefer to see the entire maxillary and mandibular arch. For referral CBCT has been requested for TMJ evaluations, implant placements, and hard structure pathology evaluations. The Orthophos XG 3D unit integrates nicely with the Cerec system, allowing complete restorative and placement of implants and other teeth that includes everything from the surgical stents to the crown milling. Being able to provide CBCT imaging for our referring dentists has augmented how we have become of further assistance to our community.

While you are at the annual meeting this year, I encourage you to take time out to visit the vendors and ask questions of them. Then ask your colleagues how it has changed their practice. You will be pleasantly surprised at how well CBCT imaging benefits your practice. In the words of many of our patients, “That’s amazing!” One note of caution; if you try CBCT imaging, you will not want to practice without it.

Dr. Tim Finkler

Dr. Tim Finkler received his DDS and Certificate in Endodontics from the Virginia Commonwealth University. Prior to entering his endodontic program, he completed a 2-year General Practice Residency at McGuire Veterans Affairs Medical Center in Richmond, Virginia. He received a BS in Electrical Engineering from The Virginia Military Institute and practiced as a Registered Professional Engineer before his dental career. He retired from over 20 years of service in the Virginia Air National Guard. His military service included time with the 203rd REDHORSE and the 192nd Fighter Wing. He is now a partner in Commonwealth Endodontics and practices in Richmond and Newport News, Virginia.