Straight to the Heart

California's Salinas Valley Memorial Healthcare System is taking a multimodality approach to cardiac disease diagnosis and treatment with a full suite of imaging equipment from Toshiba America Medical Systems Inc.

The Cardiovascular Diagnostic Center, located at the Ryan Ranch Outpatient Facility in Monterey County, will use the Toshiba Aquilion ONE CT system and the Vantage Atlas MR system to perform advanced cardiac CT imaging and contrast-free MR imaging.

In addition, Timothy Albert, MD, the center's director and an assistant consulting professor of medicine at Duke University, is using Toshiba's Aplio Artida ultrasound system at his professional practice to evaluate his cardiac patients. The ultrasound uses 4D imaging and 3D wall motion tracking to create detailed images in the evaluation of heart muscle and valve function.

"Using a combination of the latest CT, MR, and ultrasound technologies allows us to offer the most effective and safest patient care to the community," explained Albert. "When a patient is displaying a specific set of symptoms, we are capable of imaging them right away on the most appropriate system. That way, we can reduce both the contrast and radiation dose a patient receives."

The Aquilion ONE utilizes 320 ultra-high resolution detector rows to image the heart in a single gantry rotation. It produces a 4D clinical video showing up to 16 cm of anatomical coverage, enough to capture the entire heart and show movement such as blood flow.

"CT is the gold standard for coronary imaging because of the high image resolution and fast acquisition time," Albert said. "The rapid, efficient cardiac imaging and the lower radiation dose of the Aquilion ONE were a perfect fit for the new cardiovascular center. It lowers radiation dosage by up to 80%, making CT imaging safer for patients."

The Vantage Atlas MR system will be used to diagnose cardiovascular disease along with Toshiba's proprietary contrast-free MR methods to improve patient safety. MR shows both anatomy and function, and is used in analyzing valve structure and heart function. MR also offers an imaging alternative without any radiation.

"MR has revolutionized the way we look at the heart," Albert said. "New MR technology creates movie-quality images of the heart, which is like the difference between old black-and-white television versus today's high-definition television."

Toshiba's contrast-free MR techniques include Fresh Blood Imaging (FBI), Contrast-free Improved Angiography (CIA), Time-Spatial Labeling Inversion Pulse (Time-SLIP), and Time and Space Angiography (TSA). Contrast-free protocols are particularly important in imaging vascular disease and patients with kidney dysfunction.

—Verina Palmer Martin

Webextend

Read more of this story in the online version of "Practice Matters" at www.imagingeconomics.com.

Bidding for Business

Houston radiologist Daniel Roubein, MD, has launched a revolutionary online auction to offer medical imaging interpretations at a competitive price.

Roubein, CEO of Radiology Reading Centers of America, is building on the online radiology reading room concept with the Telerays network. This competitive bidding process removes the middleman and makes it easier for hospitals and imaging centers to tap into highly skilled doctors at fair prices. The service is available 24/7 and eliminates duplication because all reports are final. There are no exclusivity requirements, so radiologists can earn extra income or build their practices online.

Daniel Roubein, MD

When teleradiology was first introduced years ago, radiologists and imaging centers were wary of the practice. Today, it plays an important role in the medical imaging industry by allowing radiology facilities to provide services 24/7 while increasing efficiency and lowering costs.

"Change is always difficult, but new ideas are the future of any industry. Telerays is a revolutionary idea because it is a great equalizer. All parties are put on a level playing field and gain from the process," said Roubein. "The same parameters that currently govern the practice of medicine and teleradiology apply to the Telerays model. We are committed to the care of the patient. The ultimate goal remains the same."

Clients post their requests for interpretations on the Telerays Web site and prequalified radiologists receive an e-mail to bid on the contract. The lowest bidder wins the contract, downloads the cases, and uploads the final radiology reports. Roubein said Telerays' processes are HIPAA compliant and protect private health information. Contracted radiologists are fully credentialed, and the radiologists supply only final reports.

The concept allows radiologists to work with their existing practice and earn additional income or build their own practice. Roubein said small hospital or imaging centers have direct access to quality doctors and larger facilities have access to more competitive pricing. In addition, radiologists can choose their cases, control when they work, and decide how much money they want to make.

"They gain a better lifestyle, as they are in charge of their time and their fees," he said. "This is a fantastic time to be a radiologist. The field is growing, and the technological advances are coming at a phenomenal rate. There are new opportunities to embrace, which will improve the process and result in better care of patients and better lifestyles for doctors."

California radiologist Bill Glenn, MD, the statewide medical director for Key Health Management, said he is eager to join Telerays. As a specialist in musculoskeletal imaging and an affiliate of the American Society of Neuroradiology, he hopes to compete by offering his expertise and rapid turnaround at modest prices.

—V.P. Martin

Webextend

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