The diagnosis of Parkinson’s disease can be a challenge in some patients. In patients presenting with a tremor, differentiation of Parkinson’s disease from essential tremor and other etiologies is very important since the treatment is different.

There are a number of neurologic disorders of movement and executive function which involve changes in the dopaminergic neurons and the striata. I-123 Ioflupane (DaTscan), a new radiopharmaceutical, binds tightly to the DaT in the brain and allows visualization of the striatal DaT. The brain structures with the highest activity of I-123 Ioflupane following DaT injection are the left and right caudate and the putamen. These are known collectively as the left and right striata. The determination of whether an image is normal or abnormal is made based on the intensity of the striatal signal.

Since Parkinson’s disease can be a difficult diagnosis and differentiation from essential tremor can be a challenge, I-123 DaTscans can be of benefit.

from the President
We have three colleagues and friends who are retiring this year, and I wanted to take this opportunity to thank them for their years of service.

Bricker Burns earned his MD from Emory and did his residency and fellowship at Emory as well. He became a board-certified radiologist in 1970. He joined Radiology Associates of Marietta in 1974 and has worked at Kennestone and what are now the other Wellstar hospitals since then. The capacities in which he has served are too numerous to recount here.

Robert Chandlee did two residencies, one in anatomic pathology and one in radiology. Board certified in 1976, he joined Cobb Radiology in the same year. Robert has always put the needs of patients and the medical
DaTscan for Parkinson's Disease

Continued from page 1...

What is DaTscan?
DaTscan is a nuclear medicine scan of the brain. In adult patients with suspected Parkinson's syndrome, DaTscan may be used to help differentiate Parkinson's syndrome from other diseases.

Background
Parkinson's disease is the second most common neurodegenerative disease after Alzheimer's. It is difficult to differentiate from other movement disorders particularly in the early stages. Until recently there was no imaging test for definitive diagnosis of PD.

Early accurate diagnosis of PD can allow improvement in patients' quality of life. It may be neuroprotective before severe irreversible motor symptoms develop.

Indications for usage
DaTscan is a radiopharmaceutical indicated for striatal dopamine transporter visualization using SPECT brain imaging. It is used to assist in the evaluation of adult patients with suspected Parkinsonian syndromes (PS). DaTscans may be useful to help differentiate essential tremor from tremor due to Parkinsonian syndromes (idiopathic Parkinson's disease, multisystem atrophy and progressive supranuclear palsy).

Abnormal Scans
Abnormal uptake involving the striatal DaT on I-123 Ioflupane is demonstrated by reduced activity first in the posterior putamen often asymmetrically. The side on which the putamen uptake is reduced most typically is the sides contralateral to the side of the body on which the subject's motor symptoms first began.

DaTscans in the WellStar System
Previously there has been no specific imaging test for the definitive diagnosis of Parkinson's disease. However, with the advent of DaTscans the diagnosis of Parkinson's disease may be made at an earlier stage. Therefore, appropriate treatment may be started earlier to the benefit of the patient.

We are now able to perform DaTscans in the WellStar system at Kennestone Hospital. All DaTscans are interpreted by an experienced nuclear medicine physician and includes a neuroradiology evaluation.

To Order DaTscans, Please Call the Nuclear Medicine Department at Kennestone Hospital at 770.793.9806.

For more information about ordering DaTscans, please contact Terrance Nowlen in the Nuclear Medicine Department or Dr. Brian Gordon at 770.793.7872.

Abnormal comma shaped activity in corpus striatum

Patient with tremor; Abnormal DaTscan and Parkinson's disease
Note: Decreased activity in the left striatum

Q3D POST PROCESSING

Q3D is committed to improving patient care and enhancing physician perspective by providing state of the art, comprehensive 3D imaging services that assist in diagnosis and improve clinical outcome.

Computed Tomography has made remarkable strides in technological advancement. Sub millimeter slices and sub second scan acquisitions have enabled highly resolve, isotropic data. With advanced hardware and software, we can reconstruct that data into multiple planar views without the loss of resolution. This effectively changes the way we look at things entirely. Advanced 3D post-processing has taken this modality and propelled its use and effectiveness well beyond the axial perspective by creating multiple rendering methods that assist in the diagnostic outcome of the patients we serve.

The goal of our Q3D service is to promote higher levels of depth, quality and insight in the examinations we post-process. Q3D is committed to improving patient care and enhancing physician perspective by providing state of the art, comprehensive 3D imaging services that assist in diagnosis and improve clinical outcome.

As medical imaging examinations change and grow, we are poised to accept any new challenges presented to us.

3D post-processing is available at WellStar and Quantum Radiology for the following musculoskeletal regions: all extremities, spine, maxillofacial, and joints, as well as soft tissue, and muscular imaging.

Specify “3D Services” on your next multi-slice CT order for enhanced perspective and patient education.

For additional information, please contact our Chief Technologist of 3D Imaging Services at 770.793.5554.

For Physician to Physician Assistance, please call 404.WE.XRAY.1 (404.939.7291)
CT CARDIAC CALCIUM SCORING

Heart disease remains the leading cause of death and disability in our country, and the most common form of heart disease is coronary artery disease or coronary atherosclerosis. Wellstar and Quantum Radiology recognize that early detection and early treatment of this disease are crucial to improving patient outcomes.

Using state-of-the-art low-dose CT scanners, our radiologists can measure the amount and location of calcium within the coronary arteries. Studies have shown that coronary artery calcification is a specific marker for underlying coronary atherosclerosis. Moreover, the amount of calcification corresponds to the severity of coronary artery disease. This examination allows us to determine the presence and the extent of coronary artery disease, even before symptoms are present. A positive scan indicates that coronary artery disease is present, whether or not the patient is experiencing any symptoms.

Contraindications to this study include a prior history of extensive cardiac disease, prior coronary surgery, or pregnancy.

This examination requires no IV contrast and no special advanced preparation. The entire procedure is generally completed within 10 minutes. For patient convenience, CT calcium scoring is now available at all Wellstar imaging centers including Kennestone, Austell, Paulding, Douglasville, and East Cobb.

CT cardiac calcium scoring provides a low-dose, non-invasive method to evaluate intermediate risk patients for coronary artery disease, even before symptoms are present.

WellStar offers Heart Screenings for $99/individual or $149/couple

To Schedule an Appointment, please call 770.956.STAR (770.956.7827)

The presence of calcification is not site specific for areas of stenosis; rather, it indicates the extent of atherosclerotic plaque burden in the coronary arteries overall. Also, it is important to note that this study cannot evaluate for the presence of noncalcified plaque. However, a negative scan (Calcium score = 0) implies a very low likelihood for significant coronary artery disease. Conversely, individuals with Calcium scores greater than 400 have a greater atherosclerotic plaque burden and a higher risk for future cardiovascular events.

Referring physicians can utilize the cardiac calcium score to modify treatment with the goal of prevention of further plaque build-up. This examination can also serve as a powerful motivational tool to increase patient compliance with dietary and exercise modifications.

DENTAL CT EXAMS

CONE BEAM VS. TRADITIONAL CT TECHNOLOGY

Dental CT exams are now offered to our maxilla-facial surgeons at the WellStar Whitcher Street, Paulding, and Acworth imaging centers.

Conventional imaging has gained broad acceptance in dentistry in the last 50 years. Cone-beam machines emit an x-ray beam shaped liked a cone rather than a fan as in conventional computed tomography (CT) machines. These images are used to compute a volume from which planar or curved reconstructions can be extracted in any orientation. Voxels are isotropic and can be as small as 0.125 mm. 3-D images of bone or soft tissue surfaces can also be generated.

In dentistry the most common indications for cone-beam imaging are assessment of the jaws for placement of dental implants, evaluation of the temporomandibular joints for osteous degenerative changes, examination of teeth and facial structures for orthodontic treatment planning, evaluation of the proximity of lower wisdom teeth to the mandibular nerve prior to extraction, and evaluation of teeth and bone for signs of infections, cysts, or tumors. Cone-beam images have largely replaced conventional tomography for these tasks.

At WellStar imaging centers, we have Phillips 64-slice CT machines that can perform cone beam imaging dental protocols. The Phillips 64-slice CT scanners have the ability to switch from traditional fan beam to cone beam technology. Dental CT exams are now offered to our maxilla-facial surgeons at the WellStar Whitcher Street, Paulding, and Acworth imaging centers. The images can also be post-processed using the Phillips dental software package in our Q3D lab. All images are interpreted by a Quantum Neuroradiologist.

from the President
Continued from page 1...

community ahead of his own professional interests, and has done interventional radiology, general radiology, or mammography as the times demanded.

Mike Wolff will be retiring over the summer. A Florida native, Mike attended the University of Miami School of Medicine. He earned his board certification in 1983 and joined Radiology Associates of Marietta in 1984. With all of the current excitement about the Wellstar Pediatric Diagnostic Center, I want to remind everyone that Mike was the first true pediatric radiologist in Marietta.

My “back of the envelope” calculation is that between the three of them, they have read approximately 1.8 million radiology studies.

When Bricker started practicing in Marietta, I was still riding my bicycle to elementary school. When Robert was studying for his boards, I had just gotten my driver’s license. When Mike started practicing radiology, I did not have my MD.

The point is that all three of these physicians built and nurtured a practice many years ago, when I was a kid. Now many others benefit from those efforts, and Quantum Radiology is a home to 40+ radiologists and 60+ employees. On behalf of Quantum, I want to thank Bricker, Robert, and Mike for everything they have done for me personally, for the practice, and most importantly for the patients they have helped care for.

about the Doctors

Cardiac Imaging Team

Wellstar recognizes that early detection and early treatment of this disease are crucial to improving patient outcomes. Using state-of-the-art low-dose CT scanners, our radiologists can measure the amount and location of calcium within the coronary arteries. Studies have shown that coronary artery calcification is a specific marker for underlying coronary atherosclerosis. Moreover, the amount of calcification corresponds to the severity of coronary artery disease. This examination allows us to determine the presence and the extent of coronary artery disease, even before symptoms are present. A positive scan indicates that coronary artery disease is present, whether or not the patient is experiencing any symptoms.

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about the Doctors

Cardiac Imaging Team

Aaron Cunn, M.D. Joydeep Dutta, M.D. Scott Early, M.D. Nikhil Parsh, M.D. Stuart Resnick M.D.

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PEDIATRIC RADIOLOGIST

Dr. Zahir Momin is fellowship trained in pediatric imaging and parking and is conveniently located across from St. Joseph Catholic Church.

Zahir Momin, M.D.
Medical College of Georgia, 2005
Residency: Diagnostic Radiology, Emory University, 2010
Fellowship: Pediatric Imaging, Children’s Hospital of Michigan, 2011

DR. ZAHIR MOMIN IS FELLOWSHIP TRAINED IN PEDIATRIC IMAGING AND IS CONVENIENTLY LOCATED ACROSS FROM ST. JOSEPH CATHOLIC CHURCH.

The following exams: Dr. Momin is fellowship trained in pediatric imaging and parking and is conveniently located across from St. Joseph Catholic Church.

- Ultrasounds
- Barium Enema
- Small Bowel Follow-through
- Cystograms
- VCUG

Pediatric MRI, CT, and X-ray exams can be performed at any WellStar facility. You may request for Dr. Zahir Momin to interpret these pediatric exams on your referral order form. Quantum’s team of 43 sub-specialized radiologists is committed to provide patient-centered care.

For Physician to Physician Assistance, please call 404-758-5900

To request a copy of the ordering guide, please email the Quantum Radiology Marketing Department at arivers@quantumrad.com

GEORGIA VEIN SPECIALISTS

Ashutosh Rao, M.D.
Emory University School of Medicine, 1999
Residency: Diagnostic Radiology, Emory University Hospital, 2001
Fellowship: Interventional Radiology, Emory University Hospital, 2002

Glenn Kerwin, M.D.
Emory University School of Medicine, 2000
Residency: Diagnostic Radiology, Emory University Hospital, 2001
Fellowship: Interventional Radiology, Emory University Hospital, 2002

We have two convenient locations:

Marietta Office
6002 Professional Parkway, Suite 150
Marietta, GA 30060

Douglas Office
6002 Professional Parkway, Suite 260
Douglasville, GA 30134

For more information, please call 678.626.0019

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- Walter L. Meier, III, M.D.
- Joseph H. Moyer, M.D.
- Gregory B. Smith, M.D.
- James W. Tallman, M.D.
- Mark L. Wetherly, M.D.

Breast Imaging
- Linda K. Blom, M.D.
- Steven D. Brantley, M.D.
- William C. Choue, M.D.
- Thomas W. Hess, M.D.
- Kip Lynch, M.D.
- Anna Meyerson, M.D.
- Martin E. Silbiger, M.D.
- Augustus G. Vaughn, Jr., M.D.
- Brent S. Vincent, M.D.
- John E. Williams, M.D.
- Michael H. Wolff, M.D.

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- Jaydup Dutta, M.D.
- K. Scott Early, M.D.
- Nikhil Parsh, M.D.
- Stuart Reinsick, M.D.

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- Glenn A. Kerwin, M.D.
- Chad Kuhlman, M.D.
- Thomas P. Murphy, M.D.
- Sepehr Panah, M.D.
- Ashutosh Rao, M.D.
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- Robert Pham, M.D.
- Edward Robertson, M.D.

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- Scott Wottrich, M.D.

Nuclear Medicine and PET
- Brian M. Gordon, M.D.
- Executive Director
- Adam Fogle, MBA

GEORGIA VEIN SPECIALISTS

About the Doctor

Georgia Vein Specialists have been providing state of the art treatment for varicose veins, from spider veins to large rope-like veins, since 2004.

Dr. Glenn Kerwin and Ashutosh Rao are board certified Vascular & Interventional sub-specialized radiologists who provide one-on-one comprehensive care beginning with the initial visit (including diagnostic ultrasound performed by the physician) to definitive treatment.

All types of abnormal veins may cause symptoms ranging from the small spider veins to the large varicose veins. These symptoms typically include pain, cramps, and restless legs. Large or abnormal veins may progress in more severe case to skin discoloration, leg swelling, ulceration, and even bleeding. Most patients with varicose veins have a family history of the condition. Other contributing factors include, but are not limited to, hormone changes during pregnancy and careers requiring prolonged standing.

Dr. Kerwin and Rao use minimally invasive techniques including advanced sclerotherapy, microphlebectomy, and Endovenous Laser Ablation. The treatment of varicose veins is tailored to each patient’s clinical needs.

The initial visit and work-up are covered by most insurance companies. At Georgia Vein Specialists, we strive to perform superior quality work in a relaxed outpatient setting, with as little discomfort as possible.

Before

After

We have two convenient locations:

Marietta Office
6002 Professional Parkway, Suite 150
Marietta, GA 30060

Douglas Office
6002 Professional Parkway, Suite 260
Douglasville, GA 30134

For more information, please call 678.626.0019

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- Scott Wottrich, M.D.

Nuclear Medicine and PET
- Brian M. Gordon, M.D.
- Executive Director
- Adam Fogle, MBA
Did You Know?

Quantum Radiology Joins United Healthcare Network

Effective April 1, 2013, United Healthcare patients now have in-network access to sub-specialized imaging services provided by Quantum Radiology at WellStar hospital and imaging center locations.

**Georgia Vein Specialists**

**Georgia Vein Specialists – Marietta**
598 Nancy Street, Suite 150, Marietta
(678) 626-0019

**Georgia Vein Specialists – Douglasville**
6002 Professional Parkway, Suite 260, Douglasville
(678) 626-0019

**Medica Imaging Centers**

**Medica Stand-Up MRI of Atlanta**
6590 Powers Ferry Road, Atlanta
(770) 953-0108

**Medica Forsyth MRI, CT, US and DEXA**
925 Sanders Rd. Suite B, Cumming
(678) 845-2150

<table>
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<tr>
<th><strong>WellStar Outpatient Imaging Centers</strong></th>
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<tbody>
<tr>
<td>Kennestone Imaging Center - 210 Building</td>
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<tr>
<td>(770) 793-7800</td>
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<tr>
<td>Kennestone Imaging Center - 700 Building</td>
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<td>(770) 420-1750</td>
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<tr>
<td>Kennestone Imaging Center - 340 Building</td>
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<tr>
<td>(770) 793-7880</td>
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<tr>
<td>Kennestone - Imaging Center at 55 Whitcher Street</td>
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<tr>
<td>(678) 337-7000</td>
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<td>Kennestone Hospital – Women’s Center</td>
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<tr>
<td>(470) 793-0081</td>
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<td>Kennestone Imaging MRI (3.0T)</td>
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<tr>
<td>(770) 793-8640</td>
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<tr>
<td>Acworth Health Park Imaging Center</td>
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<tr>
<td>(770) 917-8150</td>
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<td>Canton Imaging Center</td>
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<td>(770) 479-4847</td>
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<td>East Cobb Imaging Center</td>
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<td>(770) 793-9200</td>
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**Towne Lake Imaging Center**
(678) 494-2440

**Cobb Imaging Center**
(678) 945-8640

**Cobb CT Imaging Center – 1700 Building**
(678) 398-0780

**Cobb Hospital – Women’s Imaging Center**
(770) 732-5100

**Douglas Imaging Center**
(678) 715-6601

**Douglas Imaging Center – Professional Parkway**
(678) 838-2590

**WellStar Paulding Imaging Center**
(770) 443-7700

**WellStar Windy Hill Imaging Services**
(770) 644-1240

Quantum’s Physician to Physician Line – 404.WE.XRAY.1 (404.939.7291)