Summer 2013

MAIN STREET RADIOLOGY I EXPANSION

The goal of Main Street Radiology is to provide, in a timely manner, comprehensive imaging services and the latest technological advances to the physicians and patients in Queens.

To meet the demands of our referring physicians and patients Main Street Radiology will be expanding our office located at 32-25 Francis Lewis Blvd. In the expanded space we will be installing our second Siemens 3Tesla Magnetom Verio open bore MRI scanner The Verio offers excellent image quality, superb diagnostic capability, and exceptional comfort with a large, patient friendly 70cm opening. This brings a total of 4 MRI scanners at MSR 1and 3MRI scanners at MSR 3. We are in the process of completing architectural plans for submittal to the NYC Department of Buildings. The new scanner is scheduled to be in operation November 2013.

MSR III OPENS ON SUNDAYS

We are pleased to announce that beginning April 7, 2013 we began offering Sunday appointments at the downtown Flushing office. We now accommodate patients for MRI, Ultrasound, X-Ray and Mammography and DEXA. Our goal is to shorten the time a patient has to wait from scheduling to their appointment. Our current office hours: Monday-Friday 8am-8pm
Saturday-8am-4pm
Sunday-8am-1pm

PHYSICIAN SURVEY

Since the opening of our first office in 2000, Main Street Radiology has experienced tremendous growth. We believe our success is primarily due to our ongoing efforts to provide the highest quality service to our patients and referring physicians. Since our opening, we have taken every suggestion and complaint seriously and implemented corrective actions to improve the service we provide.
Please help us to continue to provide the highest level of radiology services to our community by completing the enclosed "Physician Survey". The survey is also available on our website ***mainstreetradiology.com***
In September we will randomly select one of the surveys and donate $500 to the charity of choice. Please fax the completed survey to 718-907-2325.

NEW PACS/RIS SYSTEM

Main Street Radiology is pleased to announce that they have chosen FUJI Medical Systems to install a new Picture Archiving Communication and Radiology Information System (PACS/RIS). FUJI has been the system of choice for many imaging centers countrywide, and radiology departments of major academic centers such as Yale University.

Among the many features FUJI offers are:

- Image display on remote PC's and mobile devices(such as iPad/Android) and PDAs
- Critical Findings Notification
- Patient Radiation Dose Tracking
- Mammography Patient Tracking
- Remote Electronic Appointment Scheduling
- Dashboard View of Studies and Status
- Complete migration of all current information into the new system
- Business Continuity and Disaster recovery through their Denver facility.

Our target date for the completion of the installation is January 2014.

MAIN STREET RADIOLOGY OFFERS ADVANCED NUCLEAR MEDICINE IMAGING

ALZHEIMER'S DEMENTIA
AMYVID PET SCANS (Florbetapir F18)

Alzheimer's Dementia(AD) is the most common form of dementia, accounting for up to 80% of all cases. Memory loss is amongst the most prevalent symptoms and it is the sixth leading cause of death in the United States.

While there is currently no cure for AD, a correct diagnosis is important both for appropriate supportive management, as well as to exclude other dementias for which different therapies should be applied.

Patients with AD, at autopsy, have amyloid plaques associated with neurofibrillary tangles. AMYVID is a PET technique that specifically images these plaques. Approximately 30% of the normal population will have a positive AMYVID scan, and thus AMYVID should NOT be used to diagnose AD. However a negative AMYVID scan essentially excludes AD.

A study of amyloid imaging was performed in which 64 patients with mild cognitive impairment and a negative scan were followed for an average of 24 months (+/- 15 months). None developed AD (negative predictive value of 100%). Eur J Nucl Med January 2013 40:104-114. Karolinska Inst, Sweden.

Thus, if the main clinical need is to exclude AD, AMYVID is the best exam, especially in patients with cognitive impairment less than 65 (where the prevalence of AD is less than 1%).

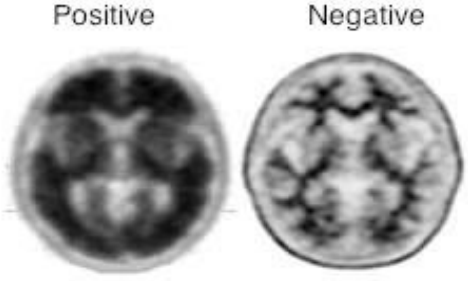
AMYVID should NOT be used -

1. To assess known Alzheimer's Dementia severity
2. To diagnose patients with probable Alzheimer's Dementia
3. To assess asymptomatic patients (i.e with positive family history or positive Apolipoprotein E)
4. To replace genotyping for Alzheimer's Dementia mutations

Clinical exam by a physician remains the first and most important diagnostic tool for patients suspected of having AD.The most useful nuclear scan in most patients with dementia is an FDG PET-CT scan, as it can provide alternative diagnoses such as Frontal Temporal Dementia, while still having a high sensitivity for **AD**.

"A meta-analysis of 119 studies showed the Sensitivity/Specificity if 18-FDG PET for discriminating which patients with cognitive impairment will go on to AD to be 92%/78%. J Alzheimers Dis. 2011;26:627-45."

FDG PET-CT brain scans are approved for Medicare reimbursement as of May 2013, and AMYVID is not. Thus insurance company preapproval is required for AMYVID.
In patients with AD, there is activity (black in these images) on AMYVID PET scans in the periphery of the brain, corresponding to amyloid plaques.



AMYVID imaging occurs approximately 1 hour after injection and the imaging time is approximately10 minutes.

PARKINSON'S DISEASE

DaT SPECT SCANS

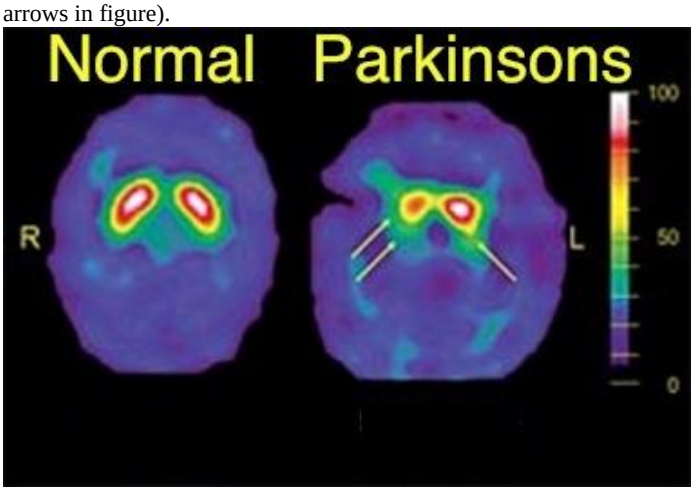
Parkinson's Disease(PD) effects approximately 1,000,000 people in the United States. Symptoms include shaking or tremor at rest, slowness of movement, muscle stiffness and trouble with balance. It is due to a loss of functional cells in a portion of the brain, called the basal ganglia, where Dopamine (DA) is produced.

While there is no cure for PD, the symptoms can be improved in many patients with medications, physical therapy, and, in some cases, surgery. Thus, a correct diagnosis is important.

Clinical examination by a physician remains the first and most important diagnostic tool for patients suspected of having PD. However, in some cases, it may not be clear if the symptoms are due to Parkinson's Disease or other disease entities, such as Essential Tremor, Psychogenic Parkinsonism or Drug-Induced Parkinsonism.

In such cases, DaT scans can be very useful. DaT Scans use a radiopharmaceutical which binds to DA transporters, a cell membrane protein which pumps DA from the presynaptic neuron allowing it to bind DA receptors in the postsynaptic neuron.

In patients with PD, these cells degenerate, and thus there are less DA transporters and this portion of the brain shows decreased uptake (see arrows in figure).



In a study of 71 patients, 46 with PD and 25 with Essential Tremor, DAT had a Sensitivity/Specificity of 91%/100% for PD. Mov Disord. 2008 15;23:405-10.

A different study in which DaT scans were performed on 33 patients with inconclusive cases of PD, then followed for 2-4 years, showed that in the 9 positive DaT scans patients, all were eventually diagnosed with PD. Of the 24 patients with negative DaT scans, only 2 were eventually diagnosed with PD. Eur J Nucl Med 2001 Mar;28:266-72.

Imaging is performed approximately 4 hours after injection of the DaT radiopharmaceutical. SPECT imaging is then performed, taking approximately 30 minutes.

If you have questions regarding these two techniques please contact Dr Jac Scheiner, Director of Nuclear Medicine at Main Street Radiology, 718-428-1500.