Parkinson's Disease

Parkinson’s disease is a neurodegenerative disease that affects a part of the brain called the basal ganglia. The basal ganglia is comprised of several centers deep in the brain that help to control movement. When this system of neurons does not function properly, people have abnormal movements such as tremor, walking difficulty, or even lack of movement (also called akinesia).

There are many treatments for Parkinson’s disease including medical and surgical options to help return the function of the basal ganglia back to a more normal state. Which treatment is best for you depends on several factors and can be best accomplished in a center that has specialists who are focused on movement disorders.

Members of the Westchester Medical Center Neuroscience Center are fellowship trained with years of experience treating patients with Parkinson’s disease.

Several other diseases such as Normal Pressure Hydrocephalus, Progressive Supranuclear Palsy, and others may look like Parkinson’s disease, but require different treatment. It is important to be seen by an expert in movement disorders for diagnosis and treatment to ensure the best treatment for your disease can be recommended.

The Westchester Medical Center Neuroscience Center is dedicated to providing an environment where students, patients, faculty and staff can reach their greatest potential. This mission and vision of excellence will be achieved through an integration of teaching, research and patient care, as well as through collaboration with all individuals and organizations who share its values.
DIAGNOSIS

There is no single test that can definitively confirm a diagnosis of Parkinson’s disease. Thus, the diagnosis is made by an expert and is based on years of experience seeing patients with Parkinson’s disease, as well as other diseases that may mimic Parkinson’s. Most patients will require an MRI or CAT scan of their brain to look for clues to the correct diagnosis. Other tests that may help in the diagnosis include PET scans, blood work and medication trials.

MEDICAL TREATMENT

The medical treatment of Parkinson’s disease is complex and continuously changing. To stay abreast of the latest developments, clinical research and diagnostic studies require a focused dedication to this subspecialty.

The gold-standard of treatment remains levodopa which is usually taken as a pill in combination with carbidopa. In the brain, levodopa is converted to dopamine, which helps replace the dopamine that is no longer produced naturally.

Many patients also take “dopamine agonists.” These are agents that act like dopamine in the brain, but do not have some of the side effects. There are many dopamine agonists to choose from and each patient must be evaluated individually to arrive at the right medication.

Often, more than one medication is needed to control the symptoms of Parkinson’s disease. The right combination of medications at the right time of day can make a tremendous difference in a patient’s quality of life. Knowing which medications are available, how they act together and what are the possible side effects is the type of information we have gained by concentrating our efforts on this disease.

SURGICAL TREATMENT

When medications do not adequately treat the symptoms or there are side effects from medications, patients should consult a Functional Neurosurgeon to learn about surgical options.

Today, surgery for Parkinson’s disease is safe and effective. Stereotactic and MRI guidance are used to localize the target region, and to further refine the implant location using sophisticated recording techniques. Most patients have a deep brain stimulator (DBS) placed. The DBS device that is completely under the skin, similar to a heart pacemaker. The DBS does not destroy tissue and thus is completely reversible.

The benefits of DBS are tremendous and have been proven to be long-lasting. The procedure was developed in France, in 1987 and was FDA approved in the United States in 1997. Tens of thousands of DBS procedures have been performed world-wide.

Most patients find that their Parkinson’s disease medications can be reduced by 50% and that their ability to move is substantially improved after DBS surgery. Patients may also have less “freezing” and tremor after DBS—all of which translates into a better quality of life.

ANCILLARY SERVICES

The symptoms of Parkinson’s disease can range from a subtle nuisance to life-threatening complications. The Neuroscience Center at Westchester Medical Center has all the services that one might need. We offer speech therapy to improve your speaking ability, neuropsychological evaluation to assess and treat cognitive symptoms, physical therapy to improve walking and other large motor skills and occupational therapy to improve fine motor skills.

CONTACT INFORMATION

If you have questions or would like to schedule an appointment with the Westchester Medical Center Neuroscience Center, please call 914.345.8111 or 914.345.1313.