"Live Healthy and Be Well"

Parkinson's disease and management

Stephen Jarrard, MD, FACS

"I may have Parkinson's, but Parkinson's does not have me!" – anonymous

I want to personally thank Ellen Petee for recommending this month's article on Parkinson's disease (PD). Ellen lives in Clayton, has PD, and refuses to give in to the condition. Her positive outlook is an inspiration to many. She asked that I research and write about this condition to raise awareness and educate those who may want to know more. Most of us know someone with PD, but may not know much about the condition itself. And, with PD as with many other health conditions, knowledge is a serious weapon to use in the fight against disease and sickness, so I am happy to make this our topic for the month of May.

Parkinson's disease is named after an English Doctor named James Parkinson. In 1817, he published a paper titled "Essay on the Shaking Palsy" and became the first to accurately describe the condition, although the causes were not accurately identified until many years later with the advent of better research and advanced neuro-imaging technologies. PD is a progressive degenerative disorder of the central nervous system. It results in a movement disorder of which the four cardinal symptoms are tremor, rigidity, slowness of movement, and postural instability. These symptoms result from the death of cells in the midbrain which produce a neuro-transmitter called dopamine. The trademark lesion of PD manifests as inclusions known as Lewy Bodies form in certain neurons of the midbrain. This condition is slightly more common in women than men, and most commonly occurs after age 50, although 10% of PD patients may present at age less than 40 (young onset disease).

The tremor of PD is usually a *resting* tremor noticeable when the limb in not in use. Active, intentional use of the limb, such as reaching for something, will stop the tremor. You may notice a tremor known as "pill rolling" involving the thumb and first two fingers, and looks exactly what it sounds like. As the disease advances, however, the tremor may become ever present, making even the most simple of tasks such as eating, dressing, or bathing very difficult. Rigidity refers to the muscles tending to remain in a state of contraction causing stiffness and resistance to smooth movement. Slowness of movement, or bradykinesia, also interferes with smooth movement. PD patients with this symptom often have to plan each stage of movement of a task, and the transitions between stages may be jerky and rough. Providing these people external cues can often help orient them, give them a goal, and make this process easier. Finally, postural instability results later in the disease and can result in accidents and falls. Advanced PD patients often walk flexed forward at the hip, with a jerky, shuffling movement technique which may be hard to start, and then hard to stop once movement begins. This is known as Parkinson's gait and becomes more common as the disease progresses.

Other manifestations of PD include disorders in thinking processes, sleep pattern disturbances, inappropriate emotions, inability to plan and execute plans, memory loss, difficulty following rules, and sometimes an inability to inhibit inappropriate actions. A very common symptom as

the disease progresses is the development of *mask facies*, or loss of ability to express emotion with the face, resulting in a facial expression similar to a mask. And, as you might guess given these type symptoms and their causes, people who have PD are two to six times more likely to develop dementia, further reducing their quality of life and increasing their chances of needing constant care as this condition progresses.

To date, unfortunately, there is no cure for PD, but the management of the disease and some new treatments give hope for minimizing or delaying for many years the progression of more severe and debilitating symptoms. Currently, the main treatment techniques involve medicines, surgery, and multi-disciplinary management. Medicinal therapies usually involve a drug called Levodopa (L-dopa) which is a precursor of dopamine. Increasing the level of this in the brain will result in an increase of dopamine which can then slow down or resolve symptoms caused by loss of dopamine producing cells. Other medicines used are dopamine agonists, meaning that they have an effect of helping or stimulating the production of dopamine in the brain, thus reducing symptoms. The medicine effects are temporary, and usually less effective as the disease progresses. And, as with many drugs, there are side effects that can range from mild to very significant, depending on the individual patient.

The most promising surgical technique currently being used is Deep Brain Stimulation (DBS). It involves carefully placing a pacemaker type device into specific areas of the brain that can help regulate the severe movement disorders. It is often recommended for PD patients who have significant movement disorders despite medicines, or those who cannot tolerate the medicines. Its effects can be variable, and results depend on many individual patient related factors. And, although studies have not always born out these results, many patients have learned to manage their symptoms and improve quality of life by the use of physical and occupational therapy, speech therapy, meditation, massage therapy, and regular exercise. These techniques, while not curative, have been shown to improve mobility, flexibility, gait speed, and strength. Certainly, a multi-disciplinary approach involving physicians, neurosurgeons, and therapists will yield the best results. And, as with any other disease or condition, a positive outlook, "fighting" mentality, and a good network of supportive family and caregivers can only add to these results!

When Ellen recommended I write this article, she also wanted me to pass on some valuable information. Support groups help and can be found in the region. She passed on some information to me about one in Jackson County nearby. Much information can be found through the American PD Association (<a href="www.apdaparkinson.org">www.apdaparkinson.org</a>). If you have PD or know someone who does, please go to <a href="www.awareincare.org">www.awareincare.org</a> for information on how to get a free "aware in care" kit from the Parkinson's Foundation which will help you keep your medicines organized, and provide valuable information to healthcare providers if you have to visit an emergency room or be admitted to a hospital. Thanks, Ellen, for all this valuable information.

We really do enjoy hearing from you with any questions, concerns, or ideas for future columns and/or health and wellness related issues for the *Georgia Mountain Laurel*. Please send an email to rabundoctor@gmail.com, or call Jamie at 706-782-0480, and we will be sure to consider your input. If you use Twitter, then follow us for health tips and advice @rabundoctor. Until next month, live healthy and be well!