



Dementia – Parkinson’s

Parkinson's disease is a neurological condition approximately 1 in 300 people and was first described by British doctor James Parkinson in 1817.

Normally the brain produces a chemical called dopamine which transmits signals in the brain resulting in the smooth movement of muscles.

For a Parkinson's patient, at least 80 percent of the dopamine producing cells are dead or damaged. The resulting damage leaves patients unable to control movement.



Causes and Risk Factors

Primary causes have not yet been identified but several risk factors are evident.

These include advancing age, gender, family history, declining oestrogen levels, agricultural work, genetic factors, low levels of B vitamin folate and head trauma.

The risk factors listed above influence the onset of the disease by the smallest degree. Most who develop Parkinson’s will have one or more of these symptoms.

Warning Signs

Symptoms usually show up in one or more of four ways:

1. Tremor, or trembling in hands, arms, legs, jaw, and face
2. Rigidity, or stiffness of limbs and trunk
3. Bradykinesia, or slowness of movement
4. Postural instability or impaired balance and coordination.

Secondary symptoms may include speech changes , loss of facial expression, or "masking" , Micrographia (small, cramped handwriting), difficulty swallowing , drooling, pain, dementia or confusion, sleep disturbances, constipation, skin problems, depression, fear or anxiety, memory difficulties and slowed thinking, sexual dysfunction, urinary problems , fatigue and aching, loss of energy, compulsive behavior and cramping.



Stages of Decline

People with Parkinson's disease may eventually experience a decline in both motor skills and cognition.

Confirmation

There is no one single test that will diagnose Parkinson's Disease. Many of the symptoms are easily thought to be part of the natural aging process making it difficult to diagnose, especially in the early stages.

Testing ranges from genetic, olfactory and autonomic system, neurophysiological and neuroimaging.

There is no single method to positively identify this disease; however advanced technology is making diagnosis more accurate.

Technology such as neuronimaging displays a 3D image allowing one to see the damage that may be occurring in the brain. There are also advances in genetic testing making it possible to see the disease at a molecular level.

Treatment

Treatment consists of a variety of prescriptions and over the counter medications that help manage the symptoms of the disease. As with any drug, side effects must be monitored and reported to your doctor for adjustments to dosage and the time the drugs are taken.

Scientists have examined Vitamin E and C and various health foods to evaluate their oxidative properties. Vitamin E can help fight damage to the brain caused by free radicals but there is no evidence to support that Vitamin E slows the progression of Parkinson's. Studies are being done on Creatine which increases the level of phosphocreatine (energy source for muscles and brain). Other studies are being conducted on fermented papaya and blueberries to determine their roll in slowing the death of nerve cells.

DBS (deep brain stimulation), a surgical option, is available for some patients – not for all. DBS is most effective for those experiencing disabling tremors, wearing-off spells and medication induced dyskinesias.



Prevention

Exercise and diet are key in maintaining anyone's health. For Parkinson's patients exercise is crucial for maintaining motor skills. Exercise also helps reduce problems with depression and constipation. Many with Parkinson's lose weight due to poor diet and appetite. Maintaining a diet containing all the daily nutritional requirements is very important. A diet rich in fruits and vegetables is recommended.

Sources:

Parkinson's Disease Information

<http://www.pdf.org>

Parkinson's Disease Foundation, Inc.

<http://www.parkinsons.org/>