



April 27th, 2015

Understanding Parkinson's and Alzheimer's

Gene Markers for Parkinson's

Nearly 100,000 Canadians have Parkinson's Disease and about 5,500 are diagnosed each year. Unraveling the human genetic code is more than just an interesting field of research – it is leading to better understanding of illnesses and the development of better treatments. Recently, 6 new genes have been identified as risk markers for Parkinson's Disease. Parkinson's is a debilitating, progressive disease of the central nervous system, seemingly related to dopamine levels. It results in tremors, rigid muscles and slow, difficult movements.

Midlife Health and Parkinson's

Studies have unveiled a link between migraine headaches, especially those that occur in midlife and include auras, with the development of Parkinson's Disease. Furthermore, they've been associated with Parkinson's occurring in other family members and restless leg syndrome. This information points to a common brain vulnerability in these conditions that could help steer researchers in the direction of recognizing and managing them.

Impactful Environmental Factors

Scientists have, for years, thought there was a significant environmental factor in the development of Parkinson's Disease. A new study is showing that a specific group of pesticides, which inhibit an enzyme called aldehyde dehydrogenase, leads to a 6-fold increase in Parkinson's risk to those exposed. They stress the importance of protection for those who handle these agents but also call for the removal of these chemicals from the market.

A metabolite of the notorious pesticide, DDT, has been associated with an increase in the risk of developing Alzheimer's Disease by up to 4 times. While obviously not the only factor in the risk of Alzheimer's, it is curious that the timing of increased Alzheimer's rates correspond to DDT's presence in our relatively recent environmental history. DDT has been banned in many countries, but is still used in some parts of the world.

There is much emphasis on lifestyle choices in disease vs factors which can't be changed, such as genetics. However, another consideration is environmental hazards - and we all have a responsibility to see that they are addressed.