New Hope for a Cure

Early detection is one of the best ways to cure Parkinson's Disease.

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The uncertainty of the cause or causes of Parkinson's Disease is profoundly disappointing to anyone affected by the disease, either as a patient, a caregiver or family member. However, the good news is that progress is being made.

There are two ways that Parkinson's Disease could be cured. The first way depends upon the disease being detected very early, before it has progressed to the point that it actually causes symptoms. It is suspected the disease probably begins five to 10 years before any symptoms are apparent. It is during this silent period, when the brain changes are just beginning, that an opportunity to intervene exists – if the at-risk patient can be identified. This concept is already widely applied in medicine in terms of preventing other serious medical problems.

Efforts to slow down or stop the progression of Parkinson's Disease have been underway since the late 1980s, with some hints of limited success. Co-enzyme Q10 has shown some possible use in this regard, and other trials are currently underway. Unfortunately, we still do not know how to reliably identify people who may be at risk for getting Parkinson's Disease, but this is also being studied with some success.

A second method of curing Parkinson's Disease is to "remodel" the brain so that the changes that have already occurred are, to some extent, reversed. There have been two major and numerous minor trials to achieve this by implanting brain tissue taken from another source into the brains of people with Parkinson's Disease. Although neither trial was regarded as being successful, they were not complete failures either. Both studies demonstrated that the implanted tissue survives and makes dopamine, but the patients' symptoms did not substantially improve, and some of the participants developed new complications due to the transplanted tissue. This technique is no longer being studied in people, but remains of interest in the laboratory.

More interesting, and seemingly successful, has been the use of socalled trophic factors, substances that naturally occur in the body and encourage the health and survival of brain tissue - a sort of brain "fertilizer." The most studied in relationship to Parkinson's Disease is called glial derived neurotrophic growth factor, or GDNF for short. A report studying the effect of GDNF in a very small group of Parkinson's patients revealed some very exciting results. The GDNF seemed to restore some brain functions that had been lost, and measurements of brain activity that had been damaged by Parkinson's Disease showed improvement. This report has been of great interest to the Parkinson's physician/scientist community. A major difficulty was that the GDNF was given to the patients by means of a plastic tube inserted directly into the brain, and then the GDNF was pumped in continually in a slow fashion. One of the authors of this study has speculated that, instead of a tube and a pump, GDNF could be delivered into the brain by stem cells, genetically programmed to produce GDNF, and then implanted into the brain.

The quest to cure Parkinson's Disease is the central focus of the careers of many bright and industrious people. In the past 20 years, much has been learned, and the pace of learning is rapidly increasing. With hard work and some luck, the solution will surely come.

Support Groups Parkinson's Caregivers Support and Parkinson's Support groups meet the fourth Monday of every month, 3 to 4 p.m. Call 760-773-1480 for information.

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