

Surgery, exercise may offer Parkinson's hope

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By Maggie Fox

WASHINGTON (Reuters) - Dr. David Heydrick does not tremble anymore. His pain is gone and he even threw a fast pitch to his son the other day.

He credits surgery to implant an electronic stimulator in his brain, along with a common-sense regimen that includes regular vigorous exercise, plenty of antioxidant-rich fruits and vegetables, and relaxation.

"I skied two weeks ago," Heydrick said in an interview on Thursday -- an astonishing accomplishment for someone who, a year ago, could not write, could not drive and had to quit his job.

Heydrick spoke at the World Parkinson's Congress in Washington, where delegates are looking for ways to help people cope with the incurable disease, which affects 1 percent of Americans over the age of 65.

Parkinson's disease is marked by the destruction of brain cells that produce dopamine, an important message-carrying chemical or neurotransmitter linked with movement.

No one knows why the cells die, but the result is progressive tremor, slowing movements and muscle stiffness that can eventually paralyze and incapacitate patients.

Drugs can help for a while, but their effects wear off. Some people cannot tolerate them.

"I'd tried them all," said Heydrick, a Baltimore-area neurologist who has treated Parkinson's patients and who first noticed his own Parkinson's symptoms in 2002 when he was 39.

Last year, he had two operations to have deep brain stimulation, in which an electrode is implanted in the brain and attached to a battery-operated neurostimulator similar to a heart pacemaker.

An estimated 30,000 people have received deep brain stimulation for Parkinson's disease.

RISKY TREATMENT

It is a risky treatment, said Dr. Andres Lozano, a brain surgeon at the University of Toronto.

"It is brain surgery and we don't want to do that lightly. And every time you implant an electrode, you have the risk of brain hemorrhage," Lozano told a news conference.

After his first operation, Heydrick saw his right hand stop trembling for the first time in two years.

Studies have shown that patients who have had deep brain stimulation are helped for at least five years, but it is only approved for patients with advanced disease who are no longer helped by drugs. Many patients are helped initially but see some of their Parkinson's-related symptoms continue to worsen.

Lozano is trying to find ways to make it work better and to win approval for its use earlier in the disease. Heydrick agrees it would be better to preserve a patient's brain as much as possible, instead of waiting to let the disease destroy cells, perhaps irreparably.

The National Institute of Neurological Disorders and Stroke is also funding studies on drugs that can preserve the brain cells destroyed in Parkinson's, on gene therapy that might reverse the process, and on the use of stem cells,

including embryonic stem cells, to try to replace the key neurons.

The Institute, part of the National Institutes of Health, is also conducting its own early stage studies on drugs that might preserve brain cells of Parkinson's patients.

Dr. Diane Murphy, who helps approve the funding of studies at NINDS, said the hope was to do the hard work that would get a drug company interested in developing a compound as a product.

"If we can tee up a drug, we might have a better chance," she said in an interview.

"At the end of the day, we want patients to be able to swallow something instead of drilling holes in their heads."

Heydrick believes his healthy-living approach will help preserve brain cells, too. "Let's think of all the different ways you can prevent cell death," he said.

Exercise is known to do this, as well as eating foods rich in antioxidants. "Blueberries are great," Heydrick said.

And no stress. "You have to respect the disease," he said. "You have to realize that you can't live the same life as you did before."

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