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Parkinson's drug 'highly promising'

A new treatment pumped directly into the brains of patients with advanced Parkinson's disease has produced "highly promising" results in early trials.



The protein was pumped into the brain

It does not cure the disease, but each of the five patients involved in the trial enjoyed a "significant" improvement to their severe symptoms - one who was barely able to walk can now cover three miles a day.

Scientists working on the drug said it could be the most important treatment breakthrough in the disease since the discovery of L-dopa, the drug most commonly used to help sufferers.

Any alternative to L-dopa will be welcomed by Parkinson's patients as the existing drug can only help patients for a limited number of years before its benefits begin to fade.

The drug - a growth factor - could be widely available within the next five to 10 years, say the researchers.

Researchers from the Frenchay Hospital's, Institute of Neurosciences, Bristol, studied the five patients over two years and found their mobility and brain functions much improved.

The tremors which dog Parkinson's patients were greatly reduced, and there are hopes that larger doses of the drug could be used in future.

Important step

The findings, published in the journal Nature Medicine, have prompted a much larger multi-national study.

Neurosurgeon Steven Gill, who co-ordinated the research, said the patients, all of whom had advanced Parkinson's, had shown considerable improvements.

"We are seeing this as a pretty major step. It needs to be refined, but we have a chance to reverse the progress of Parkinson's."

And he said it was potentially the most important step "since

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the discovery of L-dopa".

"All five have shown improvement in their symptoms. We were seeing improvements in all their quality of lives.

"That has not been done for any chronic degenerative disease before," he said.

“ All five have shown improvement in their symptoms

”

The drug, called protein glial cell line-derived neurotrophic factor (GDNF) was infused into the brains of the five patients over an 18-month period.

Steven Gill

"These are patients who were at the end of the medical line when we offered them the trial."

After a year the patients showed no serious clinical side effects.

Tests administered to measure the motor skills of the patients showed a 39% improvement. Tests used to measure daily living activities showed a 61% improvement in the patients who had been given GDNF.

Encouraging results

Parkinson's patients suffer from a lack of the brain chemical dopamine, which helps them control their movements.

High image PET scans on the patients were carried out at the Hammersmith Hospital and showed a significant increase in the brain's ability to store dopamine.

Mr Gill said that because the aim of the study was only to prove the safety of the treatment, the levels of GDNF were very small, but he said it still showed a remarkable improvement.

There are 120,000 people in the UK with Parkinson's disease.

Each year 10,000 people are diagnosed with the disease, of which one in 20 will be under the age of 40.

About a third of Parkinson's sufferers also develop senile dementia.

The Parkinson's Disease Society (PDS) said the results were encouraging.

"The Parkinson's Disease Society is delighted to have provided sponsorship for this pilot study, which, thus far, has produced encouraging results.

"The PDS is strongly committed to supporting research into the cause and cure of Parkinson's and welcomes further investigation in this promising area.

"More research and multi-centred trials need to be

undertaken, and we look forward to seeing the results of larger scale trials in the future."

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