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Hope of Parkinson's 'cure'



Parkinson's causes shaking and muscle stiffness

Scientists have successfully reversed the spread of Parkinson's disease in monkeys.

The results have raised hopes that scientists could be close to stopping the disease in humans.

Researchers from the US and Switzerland used gene therapy techniques to reverse damage in the brains of monkeys caused by Parkinson's.

They used a special virus to boost nutrients in the brain. These nutrients increase the production of dopamine.

Dopamine sends signals in the brain to help individuals move smoothly and normally. The loss of dopamine has been linked to the symptoms of associated with Parkinson's.

“
This study suggests a new approach to forestall disease progression in newly diagnosed patients
”

Dr Jeffrey Kordower

Parkinson's is a brain disease and causes severe difficulty in performing movements including walking, talking, swallowing and smiling. This causes sufferers to shake and experience muscle stiffness.

Each person with Parkinson's is affected differently and to different degrees. Their ability to perform movements may vary from one day to the next.

Sufferers eventually die from secondary complications such as pneumonia, urinary

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tract infection, pressure sores, septicaemia and stroke.

The condition is treated with drugs and there is no cure. It affects around 120,000 people in the UK.

It usually strikes people between the ages of 50 and 60 although it can also affect younger people.

Latest research

This latest research was carried out on two groups of monkeys. The first group involved eight older monkeys with early Parkinson's disease. The second included younger monkeys with no signs of the condition.

The first group received six injections of the special virus called lenti-GDNF to boost nutrients in their brain.

After three months the level of dopamine in their brains had dramatically increased and were similar to those found in younger monkeys.

The second group were injected with a chemical to cause Parkinson's disease. They developed the condition but this was reversed once they received lenti-GDNF.

Dr Jeffrey Kordower, from Rush Presbyterian St Luke's Medical Centre and one of those involved in the study, said: "By giving GDNF, we can stimulate dopamine production and prevent both the structural and functional consequences of cell degeneration that are characteristic of Parkinson's disease."

The scientist are hoping to use this special virus on humans in clinical trials within five years. The virus was developed by researchers at the Lausanne University in Switzerland.

Dr Kordower added: "This study suggests a new approach to forestall disease progression in newly diagnosed Parkinson's disease patients."

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