

Gene therapy found to help patients with Parkinson's

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Jichi Medical University has succeeded in restoring the motor function of patients suffering from Parkinson's disease by injecting their brains with a virus with a built-in gene that has an enzyme to produce dopamine, it has been learned.

Five out of six patients undergoing the first [gene therapy](#) in Japan have shown some recovery in their motor functions, the Shimotsuke, Japan-based university said.

The university said it had confirmed the safety of the virus. Although the treatment is not ready to be used as a general therapy due to the few number of cases to date, the outcome has the potential to dramatically change the lives of [Parkinson's disease](#) patients.

Parkinson's is an intractable neurological disease with symptoms that include trembling in the limbs. There are about 120,000 patients in Japan, according to sources.

The disease is believed to have been caused by a deficit of the [neurotransmitter dopamine](#) in the brain's striatum. The current mainstay therapy is the administration to patients of the drug L-dopa, a precursor of dopamine.

However, as the disease progresses, the enzyme that produces dopamine from the L-dopa decreases, reducing the medication's efficacy.

The university research team, led by neurology specialist Prof. Imaharu Nakano, incorporated a dopamine-producing enzyme within a virus and injected about 300 billion of the viruses into the brains of the six patients between May 2007 and September 2008.

The researchers studied the motor function of the patients six months later, and found that five of them showed some motor function recovery.

One patient who had been unable to move showed remarkable signs of recovery, becoming able to perform normal daily activities, the hospital said.

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