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Trials restart on humans after Parkinson's 'cure' breakthrough

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HUMAN trials of a potential cure for Parkinson's disease are set to restart after researchers overcame a debilitating side-effect that forced them to halt tests a decade ago.

Sufferers were given hope in the 1990s when cells from aborted foetuses were shown to reverse the effects of the condition if transplanted to the brain.

Unwanted side-effects were reported, however, including tremors, stiffness and slowed-down movement – collectively known as dyskinesias – and medics decided to abandon the experiment around the turn of the century.

Now a fresh study has thrown new light on the problems, and researchers believe they may

be able to pick up where they left off.

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Dr Marios Politis of Imperial College London

Currently, there is no known cure for Parkinson's.

Work funded by Imperial College London and the Medical Research Council (MRC) has suggested that dyskinesia is caused by malfunctioning serotonin cells, and could be treated with drugs.

Dr Marios Politis, from Imperial College London, who led the research team, said: "After the huge excitement surrounding the potential of brain cell transplants in the 1990s, we are thrilled that this discovery could re-open the door to this promising area of research."

The earlier trials showed the transplants could produce improvement in some patients, Politis said, but the majority suffered from the side-effects.

Though the drugs used to treat Parkinson's could also produce such effects, patients who underwent the surgery still showed the effects even after they came off medicines.

Initial results indicate that the transplants would help stave off the onset of Parkinson's for as much as a decade and a half, double the time of conventional drug-treatment programmes.

"We know that the benefits of this treatment could last up to 16 years, and we look forward to bringing this treatment one step closer to a reality for Parkinson's patients," Politis said.

The research, published in the journal *Science Translational Medicine*, looked at the brains of two Parkinson's sufferers who had complained of dyskinesia after the transplant surgery.

An overabundance of serotonin cells in the transplanted tissue was blamed for the troubles, and drugs were shown to have a beneficial effect.

Politis suggested that, in future trials, it would be possible to remove the serotonin before transplanting the tissue from the aborted foetuses, avoiding the problem altogether.

He said the findings represented a major advance in the field of cell therapy for Parkinson's disease.

The plans have already been criticised by the Catholic Church, however, which raised ethical concerns about the use of tissue from aborted foetuses.

Currently, the transplant of tissue to the brain is not available as a treatment in the UK, but researchers are confident trials will now be able to progress again, potentially saving the lives of many of the estimated 120,000 Parkinson's sufferers in the UK.

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