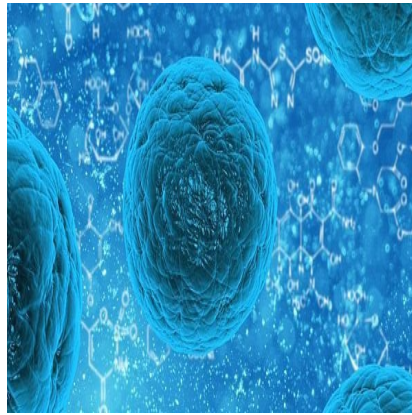




## Stem Cells May Help in Stroke Recovery



According to a pilot study by Imperial College London, infusing stem cells into the brain may help boost patient recovery after a stroke. This is the first UK study to investigate the approach in the first week of stroke. The study was funded by OmniCyte Ltd. and the National Institute for Health Research Imperial Biomedical Research Centre. The findings of the study have been published in the journal *Stem Cells Translational Medicine*.

Over 150,000 people in England suffer from stroke every year. Most survivors have to live with a wide range of mental and physical symptoms and many are unable to ever regain their independence.

Previous research has already established that stem cells can improve recovery from stroke in animals. This particular study was conducted primarily to investigate the safety of harvesting stem cells from the bone marrow in patients who had recently had a stroke. Four of the five patients in the study had suffered from severe strokes that had resulted in the loss of speech and paralysis down one side of their body. Patients were treated within seven days of their stroke because the study researchers believe that early treatment can play a role in improving the chances of recovery.

Stem cells are believed to encourage new blood vessels to grow in damaged areas of the brain. During the study, a particular type of stem cells known as CD34+ were isolated and infused directly into the damaged sections of the brain via the main artery that supplies this area. Until now, no other trial has selectively used CD34+ cells so early after a stroke. Patients were monitored for a period of six months and their ability to conduct everyday activities independently was closely monitored and recorded.

By the end of the trial, the study showed that most patients were able to walk and look after themselves independently despite the fact that they had suffered from severe strokes. With some help, all five patients were mobile and could participate in everyday tasks. These results are exciting because only 4 percent of patients who suffer from the most severe type of stroke are expected to be alive and independent six months later. The results of this study found all four of the patients who had suffered from severe stroke to be alive and independent after six months.

According to Dr. Soma Banerjee of Imperial College London, the results of this study are encouraging and exciting. However, there is definitely a need to look at a larger group of patients and to eventually develop a treatment that would be based on this approach.

Professor Nagy Habib, principal investigator of the study from the Department of Surgery and Cancer at Imperial College said, "Scientific evidence from our lab further supports the clinical findings and our aim is to

develop a drug, based on the factors secreted by stem cells, that could be stored in the hospital pharmacy so that it is administered to the patient immediately following the diagnosis of stroke in the emergency room. This may diminish the minimum time to therapy and therefore optimise outcome."

Source: [BBC News](#)

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