Japan team says stem cells made paralysed monkey jump again

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A young marmoset is carried by its father at the Amneville zoo, eastern France, June 2010. Japanese researchers said Wednesday they had used stem cells to restore partial mobility in a small marmoset that had been paralysed from the neck down by a spinal injury.

Japanese researchers said Wednesday they had used stem cells to restore partial mobility in a small monkey that had been paralysed from the neck down by a spinal injury.

"It is the world's first case in which a small-size primate recovered from a spinal injury using stem cells," professor Hideyuki Okano of Tokyo's Keio University told AFP.

Okano's research team, which earlier helped a mouse recover its
mobility in a similar treatment, injected so-called induced pluripotent stem (iPS) cells into a paralysed marmoset, he said.

The team planted four types of genes into human skin cells to create the iPS cells, according to Kyodo News.

The injection was given on the ninth day after the injury, considered the most effective timing, and the monkey started to move its limbs again within two to three weeks, Okano said.

"After six weeks, the animal had recovered to the level where it was jumping around," he told AFP. "It was very close to the normal level."

"Its gripping strength on the forefeet also recovered to up to 80 percent."

Okano called the research project a major stride to pave the way for a similar medical technique to be used on humans.

Scientists say the use of human embryonic stem cells as a treatment for cancer and other diseases holds great promise, but the process has drawn fire from religious conservatives and others who oppose it.

Embryonic stem cell research is controversial because human embryos are destroyed in order to obtain the cells capable of developing into almost every tissue of the body.

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