Human Head Transplants Could Become A Reality

Sydney Lupkin

An Italian scientist says human head transplants [1] could become a reality in this century, but don't lose your heads over it.

At least not yet.

The most famous actual head transplant was performed on monkeys in 1970. The surviving monkey lived for only eight days.

Still, Dr. Sergio Canavero, who works at Turin Advanced Neuromodulation Group in Italy, says science has caught up with science fiction like Frankenstein, and head transplants are possible.

"The problem here is not really technical but is completely ethical," he told ABCNews.com.

Read about the latest face transplant patient. [2]

In the journal Surgical Neurology International, Canavero outlined a procedure for taking the head of one person and transplanting it onto the body of another. It involves inducing hypothermia and cutting the spinal cord with an "ultra-sharp blade" so it can be fused with the donor's spinal cord.

"This is, of course, totally different from what happens in clinical spinal cord injury, where gross damage and scarring hinder regeneration," Canavero wrote.

He outlined a hypothetical scenario in which the body donor is a brain dead patient. He said the recipient could be anyone dying of cancer or anything else that leaves the brain intact.

For the head transplant to work, two surgeries would have to take place in the same operating room in which both spinal cords would be severed simultaneously but only after all other cuts had been made. Then, the donor body's spinal cord would be "chemofused" to the recipient head's spinal cord using a substance called polyethylene glycol, or PEG.

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