

Human Embryonic Stem Cells Go to Human Trials

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Just when we all thought that perhaps the wind in the sails of the human embryonic stem cell debate had abated, Geron Inc. announced that it was approved by the FDA to conduct an experimental procedure on human subjects who have suffered from a recent spinal cord injury. The procedure would involve the injection of neural cells derived from human embryonic stem cells into a spinal cord injury site. The patients would receive two months of immune suppressant drugs and will be closely monitored for a year. The stem cells were obtained from some of the oldest lines of human embryonic stem cells that were left over from in vitro fertilization procedures.

What if this doesn't work?

There are many human embryonic stem cell researchers who are worried about Geron doing the first human trials. Dr. Kessler, chairman of neurology and director of the stem cell institute at Northwestern University, is quoted in the *New York Times* as being skeptical that Geron's technique will work on human patients. In trials with mice, Geron showed that mobility increased in the tails and legs of mice with moderate spinal cord damage. Also, the mice showed no formation of tumors, a problem with embryonic stem cell therapies. However, the mice had "moderate injuries," and Kessler is skeptical that alleviating moderate injuries in mice will translate in the severe injuries in humans.

For those of us who are against the use of embryos for research purposes, this would be another example of the difficulty of using embryonic stem cells. This is just one more reason why more research and research dollars should be

focused on adult stem cells. Adult stem cell research has been successfully used in humans for years, and is not ethically contentious.

As Christians, we also need to be mindful and prayerful of the fact that there are many people who have placed hope in embryonic stem cell research. The media has portrayed embryonic stem cells as the panacea for everything from spinal cord injuries to diabetes to Alzheimer's. We need to be sensitive to the pain and disappointment that this could be for many people who have had to deal with permanent injuries or debilitating conditions.

What if this works?

First of all, even if this particular trial works, the scientists at Geron say that there is still many years of work to do. All they are testing now in Phase I clinical trials is if it is safe. Testing for efficacy comes later.

If this procedure works both safely and therapeutically, then we as Christians have the most difficult position. The fact that we believe the embryo is a person, and that it has value and dignity, does not change. Also, the fact that from a biblical perspective it is unethical for us to decide to destroy one life to save another, and to value one life over another, does not change. But anyone who is in this position or has a child, a spouse, or a loved one paralyzed due to a spinal cord injury must make a decision, and no matter what decision they make there will likely be feelings of guilt, regret and temptations too. Consider two examples:

1) Your spouse is in a horrible car accident and suffers from a spinal cord injury which will likely leave him/her paralyzed. You have the option of doing embryonic stem cell therapy at the injured site, which may result in your spouse regaining some mobility. You don't think it is right to destroy an embryo because it is a person too, and is made in

the image of God so it has inherent value. As you watch your spouse work with his/her injury, learning how to live life without mobility, how likely is it that you will ask yourself, "Did I do the right thing?" "If that embryo was going to die or be used in someone else anyway, why not my spouse?" How tempting would it be to carry that regret and guilt?

2) As before, your spouse is in a horrible car accident and suffers from the same injuries. This time you elect to do the embryonic stem cell therapy. Your spouse regains some mobility, but how tempting would it be to wonder about the sacrifice that was made, and the guilt associated with compromising, or to look at your children knowing that they were embryos once too?

These are not easy decisions. I will not pretend that even though as Christians we believe in the sanctity of human life, somehow it makes one decision any easier or the other decision any less tempting. Thankfully, we do not have to make these decisions at this time, and my prayer is that I hope we never do. It is said that a society can be judged by how they treat their most vulnerable. From the biblical perspective Jesus said, "Truly, I say to you, as you did it to one of the least of these my brothers, you did to me" (Matthew 25:40).

To give you two additional pieces of encouragement:

1) Adult stem cells have alleviated the effects of particular types of spinal cord injury in human patients (see www.discovery.org/a/2362 for a great article that was written in 2004, but seems quite timely now).

2) Desiring to alleviate the effects of the fall, including things like spinal cord injuries, is understandable. Whether or not we find a cure within someone's lifetime, we have hope in God's promise that he has conquered death and we will receive a resurrected body (1 Corinthians 15).

For more information on stem cells see these two articles from Probe.org:

www.probe.org/amniotic-stem-cells/

www.probe.org/the-continuing-controversy-over-stem-cells

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