

Stem cells help Serb's heart beat

Sivagnanam G.

Section Editor, JPP

In a desperate bid to revive a Serbian engineer's failing heart, cardiologists at a city hospital injected stem cells into her cardiac muscles. Dr. K. M. Cherien of Frontier Lifeline, said, "We first tried using stem cells to treat a 4-month-old's cardiac disorder five years ago. Today the child is alive and doing extremely well."^[1]

VIEWS

"One of the potential applications of human stem cells is to test new drugs. Differentiated cells generated from human pluripotent cell lines could be tested for drug efficacy as well as safety. Current knowledge of the signals that precisely control and generate pure populations of differentiated cells is far short of expectations. However, stem cells offer the possibility of a renewable source of replacement cells and tissues to treat Alzheimer's disease, spinal cord injury, stroke, burns, heart diseases, diabetes, osteoarthritis, and rheumatoid arthritis".^[2]

Autologous or allogenic bone marrow cells (from which

mononuclear, endothelial precursor [CD34+ or AC133 cells], or stromal [pluripotent mesenchymal] cells are derived) used for therapy have the ability to turn into any type of tissue. The proposed mechanisms of cellular therapy (in cardiac diseases like failure or infarction) are (a) angiogenesis (marrow cells may be able to secrete multiple potentially angiogenic substances as well as differentiate into cells that create new blood vessels), (b) myogenesis, transdifferentiation of bone-marrow-derived cells into heart muscle cells.^[3]

If somebody is murmuring whether sperms and ova can also be derived from stem cells, then the answer is a big YES (connect yourself to the following pages^[4,5]). Stay tuned to respective channels for more interesting developments.

REFERENCES

1. Stem cells help Serb's heart beat. Deccan chronicle, April 19, 2011
2. Stem cells basics. Available from: <http://stemcells.nih.gov/info/basics/basics6.asp> [Last accessed on 2011 May 3].
3. Perin EC. Stem cell therapy for cardiovascular disease. Tex Heart Inst J 2006;33:204-8.
4. Sperm made from human bone marrow. Available from: <http://news.bbc.co.uk/2/hi/health/6547675.stm> [Last accessed on 2011 May 3].
5. Scientists grow sperm and eggs from stem cells. Available from: <http://www.tomsguide.com/us/stem-cell-sperm-egg-clone,news-4979.html> [Last accessed on 2011 May 3].

Access this article online	
Quick Response Code:	Website: www.jpharmacol.com
	

How to cite this article: Sivagnanam G. Stem cells help Serb's heart beat. J Pharmacol Pharmacother 2011;2:217.

Source of Support: Nil, **Conflict of Interest:** None declared.