Study of human mesenchymal stem cells shows no therapeutic change in older subjects

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Dr. Joshua Hare, founding director of the Interdisciplinary Stem Cell Institute at the University of Miami Miller School of Medicine, co-authored a study released in the Journal of The American College of Cardiology titled Effect of Aging on Human Mesenchymal Stem Cell Therapy in Ischemic Cardiomyopathy Patients. The study concluded that patients age 60 and over did not suffer a diminished response to Mesenchymal Stem Cell (MSC) therapy.

The study included the examination of data from two prior ischemic cardiomyopathy studies with patients receiving MSCs through transendocardial [**stem cell**](http://www.medicalnewstoday.com/info/stem_cell/) injection. Out of a total 49 patients included in these results, 23 were under the age of 60 and 26 were 60 or older. Participant progress was tracked by measuring their six minute walk distance, quality of life (determined using the Minnesota Living with Heart Failure Questionnaire), changes in cardiac structure and scar size. Data was taken three times, first at baseline, then at six months and finally after one year. Both groups experienced improvements in all four categories. More importantly, these results showed no significant statistical difference between the two age groups.

"MSC trials in older patients have been a controversial topic in the field of stem cell research," Says Dr. Hare. "Many of the cardiac conditions we aim to cure are more prevalent in the older population. The hope is that with these results more studies will begin including patients over the age of 60, leading to trials that will benefit the population with the greatest need."

Illnesses such as cardiomyopathy, [**Alzheimer's disease**](http://www.medicalnewstoday.com/articles/159442.php) and eye disease are more common in individuals over the age of 60. With a large aging population, stem cell researchers can be encouraged that therapies are likely to be equally as effective in a group that compromises the majority of potential patients who would need treatment in these areas. The findings of the study open the door for an increased number of older patients to seek out stem cell therapy trials for the treatment of diagnoses that don't currently have an effective cure.