**Glaucoma Visual Fields Improve Following Stem Cell Treatment**

*MD Stem Cells reports peripheral vision improvement in glaucoma.*

Ridgefield, CT, April 12, 2015 --([PR.com](http://www.pr.com/))-- The Stem Cell Ophthalmology Treatment Study or SCOTS uses bone marrow derived adult stem cells for the treatment of optic nerve and retinal disease. It is the largest stem cell study in ophthalmology and registered with the National Institutes of Health- NCT # 01920867.  
  
“We have been observing improvements in a number of patients with different optic nerve and retinal diseases following stem cell treatment in the study,” reports Dr. Levy, President of MD Stem Cells and Study Director, SCOTS. “We have been reporting periodically on patients and their progress,” said Dr. Levy, “and we’re pleased with the early peripheral vision improvement seen in a recent glaucoma patient.”  
  
Glaucoma is a disease in which pressure inside the eye damages the nerves within the eye. Those neurons form the optic nerve which travels out the back of the eye to the brain. In glaucoma the optic nerve typically develops what is called “cupping” in which the center part of the optic nerve becomes “scooped out” because of the death of the neurons. The initial result is often damage to the peripheral or side vision. If the disease progresses total blindness can result. Eye drops, laser and surgery are used to control the pressure, but up to now no regeneration was possible for the damage done.  
  
The patient was a 64 years old man with significant glaucoma damage and legal blindness because of the near total loss of peripheral vision. His central vision pretreatment was 20/70 in both eyes but for the patient it was like looking through a keyhole- simply a tiny window of vision which was very hard to focus on specific objects. He was enrolled in Arm 2 of SCOTS which included 3 separate injections for each eye of adult stem cells from his own bone marrow. On a follow up exam only 10 weeks following treatment his peripheral vision had improved from a Mean Deviation of -31.30dB pretreatment to -27.08 dB which is about a 14% improvement. Similarly the left eye improved from a Mean Deviation of -31.17 dB to -28.83 dB.  
  
“While modest, the early improvements are notable for their positive direction and relatively early onset. Equally important, they were appreciated by the patient,” indicated Dr. Levy. Optic nerve disease can be caused by many things other than glaucoma including increased intracranial pressure, lack of blood flow called ischemia, inflammation, immune disorders, diseases of the mitochondria or energy producers of the neurons – Lebers Hereditary Optic Atrophy and Dominant Optic Atrophy, and other issues. Once damage to the optic nerve tissue has occurred it is typically irreversible with conventional treatment. Adult stem cells have the potential for regenerating the neurons and the support layer called glial tissue.  
  
“SCOTS continues to demonstrate the potential for improvement in visual function for optic nerve disease. We are pleased to be seeing this with a number of patients across different causes of optic nerve damage,” concluded Dr. Levy.  
  
Patients considering treatment should understand that SCOTS is a clinical trial and individual responses cannot be predicted. There are specific inclusion, exclusion and follow up requirements to participate in the study. Patients interested in learning whether they may be eligible to participate in SCOTS, as well as healthcare providers, may email Dr. Levy at the MD Stem Cells website or call him at 203-423-9494 Eastern Time USA. SCOTS is being conducted under an Institutional Review Board and is registered with the National Institutes of Health on their website with identifier NCT01920867.