

Stem cell transplant a possibility for eye disease

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Singapore: Stem cells transplant could be a possible treatment for eye disease, according to a recent trial conducted in US.

In an ongoing trial on 18 patients, a team of researchers have been successful in achieving safety and tolerability in transplanting human embryonic stem cells (hESCs) for macular degeneration and Stargardt's macular dystrophy, the leading causes of adult and juvenile blindness in the developed world.

The positive result of the study gives hope to stem cell therapy enthusiasts for a potentially safe treatment for medical disorders requiring tissue repair or replacement.

One of the major challenges of stem cell therapy is the risk of uncontrolled cell multiplication, tumor formation and immune rejection that has so far barricaded the application of regenerative medicine in human therapy.

In the current study, published in *The Lancet*, the researchers have stated the achievement of medium-term to long-term safety of cells derived from human embryonic stem cells (hESC) transplanted into patients.

The clinical study was done for subretinal transplantation of hESC-derived retinal pigment epithelium in nine patients with Stargardt's macular dystrophy (age >18 years) and nine with atrophic age-related macular degeneration (age >55 years). The researchers found no evidence of adverse proliferation, rejection, or serious ocular or systemic safety issues related to the transplanted tissue.