Title : stem cells in retinal degenerations and dystrophies

Dr. Abdelhakim Mohamed Safwat

Lecturer of ophthalmology

Alazhar University

Egypt

Multiple retinal disorders can cause severe visual loss and subsequent visual handicapping with its social and financial impacts, Retinal disorders can be both hereditary and acquired. Hereditary retinal diseases as retinitis pigmentosa , Stargardt's maculopathy, fundus flavimaculatus and others. Acquired retinal disorders as diabetic retinopathy, retinal complications of various forms of retinitis or chorioretinitis …all can lead to irreversible visual loss which is considered untreatable and usually the patients are referred to low vision clinics for trial of visual aids or may be just settle for some supportive treatment as vitamins and vasodilators. Stem cells transplantation is a promising method for retinal tissue and visual restoration in patients with retinal disorders. Not only can these transplants adopt retina-like morphologies and phenotypes, but they have also shown evidence of synaptic reconnection and visual recovery in both animal and human studies. Still, work must be done to achieve higher yields of functioning retinal neurons and to promote better integration within the host retina. Several researches are been carried on all over the world to evaluate the efficacy of stem cell transplantation in treating retinal disorders and restoring vision in what is considered to be untreatable retinal diseases.