Epilepsy drug could help treat retinitis pigmentosa, study finds

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A small preliminary study has found that valproic acid - a drug already used to treat epileptic seizures, migraines and bipolar disorder - may halt or even reverse the loss of vision produced by retinitis pigmentosa, researchers said Thursday. A team from the University of Massachusetts Medical School in Worchester is now organizing a clinical trial to confirm its observations.

Retinitis pigmentosa, commonly known as RP, is a group of eye diseases marked by degeneration of the retina, the part of the eye that captures images, leading to loss of peripheral vision and night vision. At least 40 genes have been linked to the condition and the particular manifestation of the disease depends on which genes are involved. The only effective treatment involves high levels of vitamin A palmitate, which can slow the progression of the disorder but not halt it. About one in 4,000 people is affected by RP, with many going blind by the age of 40.

Virtually all forms of the disease are characterized by inflammation and cell death. Dr. Shalesh Kaushal, a professor of ophthalmology and cell biology at the university, reasoned that valproic acid, which is known to affect both conditions, might slow the progression of RP, and tissue culture experiments suggested that was the case.

Kaushal and his colleagues then treated seven patients with an early stage of RP with 500 to 750 milligrams of valproic acid per day over the course of two to six months. The team reported in the British Journal of Ophthalmology that vision improved in five of the patients even though

they were at a stage when vision loss normally progressed rapidly.

Kaushal is now organizing a three-year, $2.1 million clinical trial of the approach to test it against a placebo. The trial will be funded by the Foundation Fighting Blindness and the National Neurovision Research Institute. The clinical trials will be easier that they would be with an experimental compound because the safety of the drug has already been demonstrated.