

AAN: phenytoin neuroprotective in optic neuritis

April 17 2015



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(HealthDay)—Phenytoin appears to be neuroprotective in acute optic neuritis (AON), according to a study scheduled to be presented at the annual meeting of the American Academy of Neurology, held from April 18 to 25 in Washington, D.C.

Raju Kapoor, M.D., from the National Hospital for Neurology and Neurosurgery in London, and colleagues conducted a phase 2 [randomized trial](#) involving 81 patients with AON. Participants were randomized within two weeks of [symptom onset](#) to receive phenytoin (39 patients) or placebo (42 patients) for three months. Using [optical coherence tomography](#), the researchers assessed retinal nerve fiber layer

(RNFL) thickness and macular volume (MV) at baseline and six months later.

The researchers found that at six months, the average adjusted affected eye RNFL thickness was 7.15 μm higher in the phenytoin group than the placebo group in intention-to-treat analysis, a 30 percent protective treatment effect. In the phenytoin group, adjusted MV was 0.2 mm^3 higher, a 34 percent protective treatment effect. In per-protocol comparisons, similar significant treatment effects were observed. Vision generally recovered well with no significant between-group difference in visual outcomes.

"If this finding is confirmed by larger studies, it could lead to a treatment that may prevent nerve damage and blindness in multiple sclerosis, and could help other attacks of [multiple sclerosis](#), serving a major unmet need," the authors write.

The study was partially funded by a grant from Novartis.

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Citation: AAN: phenytoin neuroprotective in optic neuritis (2015, April 17) retrieved 7 May 2024 from <https://medicalxpress.com/news/2015-04-aan-phenytoin-neuroprotective-optic-neuritis.html>

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