Network meta-analysis recommends prostaglandins for glaucoma

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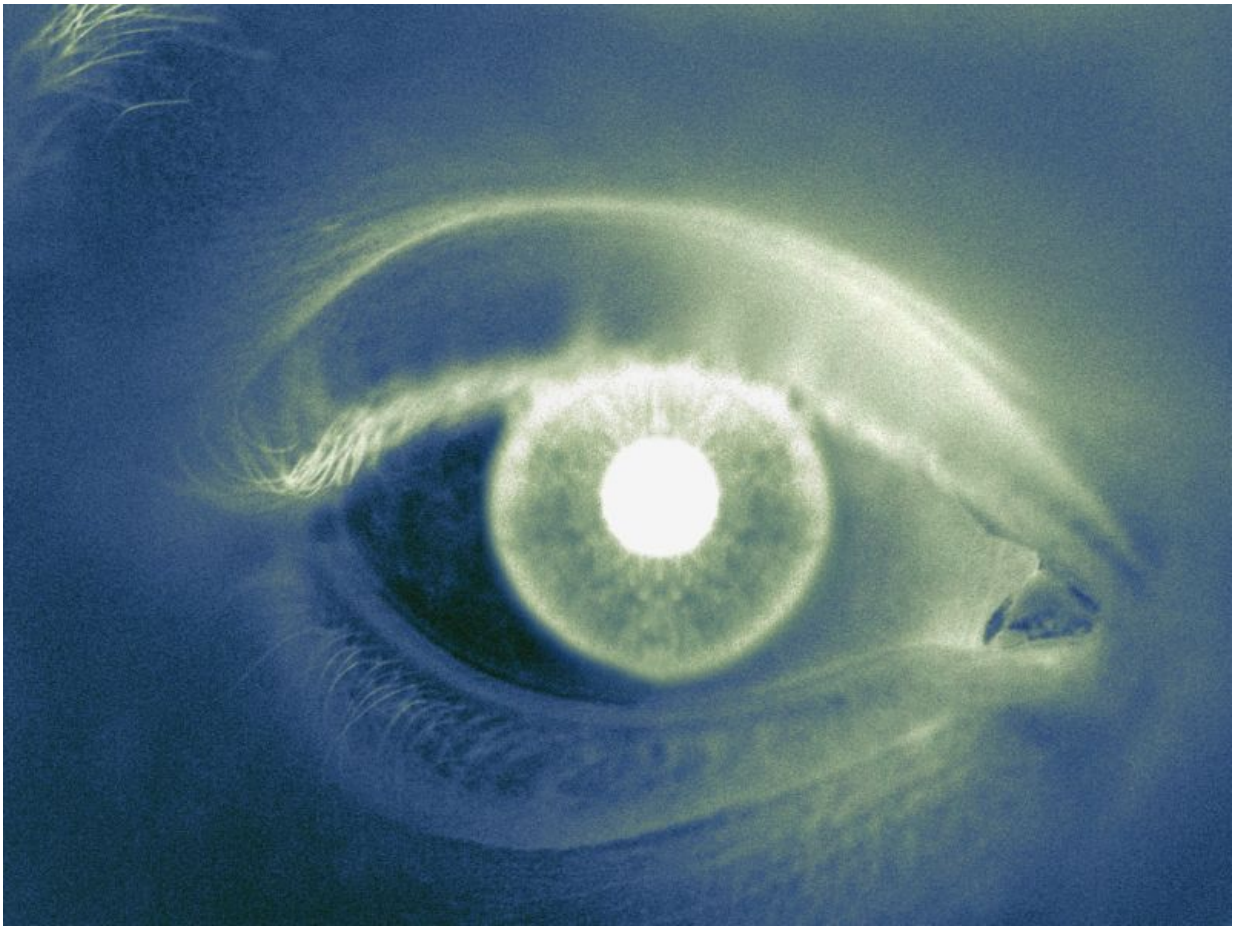

(HealthDay)—Network meta-analysis, which compares multiple

treatment options, suggests that prostaglandins are best for decreasing intraocular pressure at three months in primary open angle-glaucoma (POAG), according to research published online April 19 in the *Annals of Internal Medicine*.

Benjamin Rouse, M.H.S., from the Johns Hopkins Bloomberg School of Public Health in Baltimore, and colleagues compared treatment recommendations for first-line medical therapy for POAG from major updates of American Academy of Ophthalmology guidelines using network meta-analysis. Data from randomized controlled trials (RCTs) of glaucoma monotherapies compared with placebo, vehicle, or no treatment or other monotherapies were reviewed. Guidelines were grouped together and RCTs that existed at 1991, 1995, 1999, 2004, and 2009 were assessed. Intraocular pressure (IOP) at three months was the outcome of interest.

The researchers found that only the most recent guideline made a specific recommendation for prostaglandins. Based on network meta-analyses, all treatments were found to be superior to placebo in decreasing IOP. The mean reduction for the highest-ranking class versus placebo was β-blockers in 1991 (4.01); α_2-adrenergic agonists in 1995 (5.64); and prostaglandins in 1999, 2004, and 2009 (5.43, 4.75, and 4.58, respectively).

"For timely recommendations when multiple treatment options are available, guidelines developers should consider network meta-analysis," the authors write.

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