

Information From Your Eye M.D.

OCULAR HYPERTENSION, GLAUCOMA & EYE DROPS

Information prepared by the American Academy of Ophthalmology

Endorsed by the American Glaucoma Society and The National Medical Association, Ophthalmology Section

Background

Glaucoma is an eye condition in which the optic nerve becomes damaged, leading to vision loss. The optic nerve is responsible for carrying images from the eye to the brain. The most common type, primary open-angle glaucoma (POAG), is the second leading cause of blindness in the U.S. and the leading cause among African-Americans. An estimated 2.5 million Americans have POAG, yet half of them probably don't know they have it.

There are several risk factors associated with POAG - one of the most important is higher than normal pressure within the eye (intraocular pressure or IOP). People who often have higher than normal IOP are considered to have high pressure (a condition called "ocular hypertension") in the eye, and are at increased risk for developing POAG. A person is considered to have POAG if he or she shows signs of optic nerve damage that isn't due to another known cause.

People who have been diagnosed with POAG are often treated with prescription eye drops to lower IOP, which prevents additional vision loss in many people. Some doctors prescribe them, as well to patients with ocular hypertension and no signs of optic nerve damage. This may help reduce the likelihood that they will develop POAG. More study was needed to find out if the eye drops really help prevent or delay the development of POAG and vision loss. In addition, the eye drops can be expensive and can have side effects. It is also important to emphasize that most people with ocular hypertension don't go on to develop POAG.

A recently completed study, the Ocular Hypertension Treatment Study (OHTS) has now shown that prescription eye drops may help prevent the development of POAG in some people with ocular hypertension.

What is the Ocular Hypertension Treatment Study?

The Ocular Hypertension Treatment Study (OHTS) is a major study sponsored by the National Eye Institute (NEI) and the National Center on Minority Health and Health Disparities (NCMHD), two of the Federal government's National Institutes of Health, and was conducted at 22 major medical center research facilities around the country.

In the study, scientists looked at the effects of certain prescription eye drops, on 1,636 patients, ages 40 through 80, who had ocular hypertension but no signs of POAG. The study was designed to see if the eye drops could prevent some patients with ocular hypertension from going on to develop POAG.

What Were the Results?

Half of the patients in the study received the eye drops, half did not. Among those who received the eye drops, 4.4 percent developed POAG within five years; among those who received no drops, 9.5 percent developed POAG within five years. This means the eye drops reduced the development of POAG by more than 50 percent in patients with ocular hypertension. However, it should be stressed that 90 percent of untreated patients did not develop glaucoma.

The study also demonstrated that people with certain risk factors, in addition to ocular hypertension, were more likely to develop POAG. These risk factors included:

- Older age
- Higher intraocular pressure
- Thin cornea (clear front part of the eye)

Should I Use Eye Drops to Prevent POAG?

If you don't have ocular hypertension or other risk factors for POAG, the eye drops used in the study won't benefit you. For people with ocular hypertension, it is important to remember that not all people in the study seemed to benefit from eye drops and that most people with ocular hypertension did not go on to develop POAG.

The eye drops can have side effects and can be expensive. The types of eye drops used in the study are only available by prescription, so if you have ocular hypertension, talk to your Eye M.D. He or she can evaluate your eye health, risk factors and lifestyle to help you determine if prescription eye drops might benefit you.

Where Can I Get More Information?

Information on OHTS is available from the National Eye Institute of the National Institutes of Health at www.nei.nih.gov/glaucomaeyedrops/.

Your Eye M.D. is your best source of information about eye care. If you would like more information on glaucoma and its treatment options, please visit the American Academy of Ophthalmology's public information Web site at www.medem.com/eyemd.

The American Glaucoma Society's Web site, www.glaucomaweb.org, can provide information about resources on glaucoma.

The National Medical Association is the nation's largest and oldest professional educational and scientific organization specifically dedicated to the health care of African Americans. More information is available at www.NMAnet.org.

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