

REPORT

Better Health Through Research

Fall 2006

Type 2 Diabetes Associated with Increased Risk of Glaucoma

Early screening is critical

A study published in the July 2006 issue of Ophthalmology supports the hypothesis that women with type 2 diabetes run a greater risk of developing primary open-angle glaucoma.

Primary open-angle glaucoma, (POAG), is the most common form of the disease, accounting for approximately 60 — 70% of glaucoma cases.

“While obesity fuels the type 2 diabetes epidemic, it appears that factors unrelated to obesity contribute to the positive association between type 2 diabetes and glaucoma,” said Dr. Louis R. Pasquale, lead author of the study.

“We were surprised to find this,” he added.

The study was conducted by researchers at the Massachusetts Eye and Ear Infirmary, Brigham and Women’s Hospital, Harvard School of Public Health and Harvard Medical School, all located in the Boston area.

A press release from the Massachusetts Eye and Ear Infirmary states that results came from observing over 76,000 women who were enrolled in the Nurses’ Health Study from 1980 to 2000, a period of twenty years.

“Eligible participants” further states the press release, “were at least 40 years old, did not have POAG at the beginning of the study, and reported receiving eye exams during follow-up.

After taking into account age, race, hypertension, body mass index, physical activity, alcohol intake, smoking and family history of glaucoma, they found that type 2 diabetes was positively associated with POAG.”

During that twenty year time period, 429 women developed glaucoma and data revealed that having type 2 diabetes was associated with an 82% higher risk of developing glaucoma.

Please read the side bar in this issue of **National Glaucoma Research Report** for additional information about type 2 diabetes.

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President's Corner

Because your eyesight is precious

Because your eyesight is so precious, I urge everyone reading this newsletter to get their eyes checked!

Glaucoma sneaks up on you without warning. Experts estimate that half of all those affected by glaucoma don't know that they have the disease until some vision has been lost. So even if your vision seems completely normal, glaucoma can be causing damage without your knowledge.

Glaucoma, caught early, can be controlled. Sometimes, the solution is as simple as eye drops used once a day. Other times, your eye doctor may prescribe laser surgery or even conventional surgery to help restore lost vision.

Research into new treatments is making great headway in uncovering new drugs that may help to stave off glaucoma. Those advancements have enormous meaning to the 66.8 million people worldwide who suffer from this degenerative eye condition.

But here at National Glaucoma Research, we will not consider our work done until we find a cure; one that protects you, your family and your loved ones from vision loss.

For all you do to help bring that day closer, I thank you.

Brian K. Regan, Ph.D.
President

News Update

FDA approves glaucoma treatment

On June 22, 2006, the FDA approved an expanded indication for Lumigan, made by Allergan, Inc., an ophthalmic solution for reducing elevated intraocular pressure (IOP) in patients with open-angle glaucoma or ocular hypertension.

Lumigan is only used once daily and is expected to enhance patient compliance, a major concern among doctors treating patients with glaucoma.

Lumigan is part of a new class of glaucoma drugs known as prostamides. Prostamides, which are produced by the body naturally, have been shown to help the fluid in the eye flow out by opening alternative drainage canals, keeping eye pressure from becoming elevated.

The product was previously approved for use in patients who were intolerant or insufficiently responsive to other IOP-lowering medications.

Adapted from the following source: Journal of the American Medical Association (JAMA) and Archives Journals

www.ahaf.org

Simply click on the National Glaucoma Research link to learn more about what's new in the world of glaucoma research, as well as important information about risk factors for glaucoma and healthy choices that may help you minimize the risk of glaucoma.

Type 2 Diabetes Associated with Increased Risk of Glaucoma

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Get your eyes examined regularly

Primary open-angle glaucoma is a progressive disease characterized by optic nerve damage. High eye pressure is the most significant recognized risk factor for the development and progression of the disease.

The pressure in the eye builds up gradually. At some point, side vision (peripheral vision) is lost and without treatment, total blindness will occur.

According to the National Eye Institute (part of the U.S. National Institutes of Health), some people are at higher risk for glaucoma than others. They include:

- African Americans over age 40.
- Everyone over age 60, especially Mexican Americans.
- People with a family history of glaucoma.

Other risk factors include high eye pressure, thinness of the cornea, and abnormal optic nerve anatomy.

Unfortunately, many people do not experience any symptoms of glaucoma until their vision is damaged beyond repair. In particular, open-angle glaucoma can exist for years before it is caught and treated.

The only way to detect the disease before it becomes a serious problem is with regular eye examinations.

The test for glaucoma is simple, painless, and takes just a moment in your eye doctor's office.

Though we have not yet found a cure for open-angle glaucoma, it can be effectively treated by lowering the pressure in the eye with eye drops in combination with or separately from oral medications.

Free eye exams available through EyeCare America

If you are avoiding seeing your eye doctor because of the cost, EyeCare America may be the solution you've been looking for. Since 1980, EyeCare America has helped more than 650,000 financially disadvantaged people to receive necessary eye examinations at no cost.

If you have not had an eye exam in the past 12 months and are at increased risk for glaucoma, you may be eligible to receive a referral for a glaucoma eye exam. Call EyeCare America's help line 1-800-222-EYES (3937).

EyeCare America is a public service foundation of the American Academy of Ophthalmology.

About type 2 diabetes

According to the American Diabetes Association, type 2 diabetes is the most common form of the condition in which your body does not produce enough insulin or your body's cells ignore the insulin. There are currently 41 million people in the United States, ages 40 — 74, who have elevated blood glucose levels, most often a precursor to diabetes.

Just a few of the potential complications associated with type 2 diabetes include heart disease, kidney damage, nerve damage and now, open-angle glaucoma.

But there are steps you can take to prevent diabetes. Good nutrition and physical activity can help delay or prevent type 2 diabetes from ever developing.

If you think you might be at risk of developing type 2 diabetes, please consult with your regular doctor so that you can take steps that are right for you in preventing this devastating disease.

Answers to Your Questions

Readers receive much needed information about glaucoma

Q. I have recently been diagnosed with open-angle glaucoma. Is it possible that the glaucoma was caused by the radial keratotomy surgery in the early 1980s?

A. It is unlikely that radial keratotomy surgery is linked to the development of open-angle glaucoma. At the time of your evaluation in the 1980s, you may have had no signs of glaucoma, and thus recently developed changes in the optic nerve that are characteristic for the disease.

Q. I have glaucoma and have been taking both Xalatan and Cosopt for several years. I now have blurred vision. Is there an alternative to this combination of medications? Can I safely reduce the amount of Cosopt that I take each day?

A. Cosopt is a combination of dorzolamide and timolol, for use twice a day. The medicines in Cosopt are most effective when used twice a day to effectively control eye pressure throughout a 24-hour period. You will need to contact your eye doctor concerning any changes in your medication regimen.

Q. Are there studies regarding compliance with taking glaucoma medications?

A. Research investigating compliance with glaucoma medications has shown that patients are more likely to stick to their medication schedule when there are fewer eye drops to administer and decreased frequency of administration. Cost, age, and cognitive status are also linked to compliance issues.

Q. If someone sees black spots, is that a symptom of glaucoma?

A. Black spots may be caused by different things. They could be floaters or scotoma. Floaters are deposits in the vitreous gel (the clear jelly-like substance that fills the eye from the lens back to the retina) and are not indicative of glaucoma. Scotoma (small blind spots) may be seen in some glaucoma patients. Scotoma can be mapped out with a visual field test. You should talk to your eye care provider about these black spots and they should be able to investigate further.

The information provided in this section is a public service of National Glaucoma Research, a program of the American Health Assistance Foundation, and should not in any way substitute for the advice of a qualified health care professional and is not intended to constitute medical advice. All medications and supplements should only be taken under medical supervision. The American Health Assistance Foundation does not endorse any medical product or therapy.

Leave a Legacy of Help and Hope

Consider including National Glaucoma Research in your will

If you have ever thought about playing a leadership role in the fight against glaucoma — one that will further our research without affecting your current income — you may want to consider a bequest to National Glaucoma Research (NGR).

One of the great advantages to leaving a bequest in your will is that it does not affect your current lifestyle at all. You simply decide how much you would like NGR to receive when you pass on.

Your gift can be in the form of stocks or bonds, securities, real estate, cash — whatever you choose. You can leave a specific amount or a portion of your estate.

Because everyone needs to plan for the future, we urge you to consult an estate planner, accountant, or tax attorney to help you draft a will and set up an estate plan. We can also provide you with some assistance, if you like.

Call Gayle Handiboe, Development Manager, at 1-800-437-2423 or e-mail her gandiboe@ahaf.org. She'll be happy to give you more information on leaving a legacy gift to National Glaucoma Research.

And if you have already included NGR in your will, please let us know so that we can acknowledge your generosity!

Thank you for thinking of National Glaucoma Research!