14A THE BANNER GRAPHIC Tuesday, January 22, 2008

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DIABETES AND YOUR EYES

Abnormal cell growth in the eye (the red spots and clusters)

Diabetic Eye Disease

Diabetic eye disease refers to a group of eye problems that people with diabetes may face as a complication of diabetes. All can cause severe vision loss or blindness. Diabetic eye disease may include:

- •Diabetic retinopathy--damage to the blood vessels in retina.
- •Cataract--clouding of the eye's lens. Cataracts may develop at an earlier age in people with diabetes.
- •Glaucoma--increase in fluid pressure inside the eye that leads to optic nerve damage & loss of vision.

What is Diabetic Retinopathy?

Diabetic retinopathy is the most common diabetic eye disease and a leading cause of blindness in American adults. It is caused by changes in the blood vessels of the retina. In some people with diabetic retinopathy, blood vessels may swell and leak fluid. In others, abnormal new blood vessels grow on the surface of the retina. The retina is the light-sensitive tissue at the back of the eye. A healthy retina is necessary for good vision. If you have diabetic retinopathy, at first you may not notice changes to your vision. But over time diabetic retinopathy can get worse and cause vision loss. Diabetic retinopathy usually affects both eyes.

Causes & Risk Factors

Blood vessels damaged from diabetic retinopathy can cause vision loss in two ways:

1. Fragile, abnormal blood vessels can develop & leak blood into the center of the eye, blurring vision.
2. Fluid can leak into the center of the macula (part of eye where sharp vision occurs). The fluid makes the macula swell, blurring vision. This condition is called macular edema & can occur at any stage of diabetic retinopathy.

Who is at risk for diabetic retinopathy?

All people with diabetes, type 1 & type 2, are at risk. That's why everyone with diabetes should get an annual comprehensive dilated eye exam. The longer someone has diabetes, the more likely he will get diabetic retinopathy. Between 40-45% of Americans diagnosed with diabetes have some stage of diabetic retinopathy. If you have diabetic retinopathy, your doctor can recommend treatment to help prevent its progression.

During pregnancy, diabetic retinopathy may be a problem for women with diabetes. To protect vision, every pregnant woman with diabetes should have a comprehensive dilated eye exam as soon as possible. Your doctor may recommend more exams during your pregnancy.

What can I do to protect my vision?

If you have diabetes, schedule a comprehensive dilated eye exam at least once a year and remember: better control of blood sugar levels slows the onset and progression of retinopathy. Diabetics who kept their blood sugar levels as close to normal as possible also had less kidney and nerve disease. Better control reduces the need for sight-saving surgery. Other studies have shown that controlling elevated blood pressure and cholesterol can reduce the risk of vision loss. Controlling these factors will help your overall health as well as help protect your vision.

Symptoms and Detection

Often there are no symptoms in the early stages of the disease, nor is there any pain. **Don't wait for symptoms**. Be sure to have a comprehensive dilated eye exam at least once a year. Blurred vision may occur when the macula -- the part of the retina that provides sharp central vision -- swells from leaking fluid. This condition is called macular edema. If new blood vessels grow on the surface of the retina, they can bleed into the eye and block vision.

Treatment

During the first three stages of diabetic retinopathy, no treatment is needed, unless you have macular edema. To prevent progression of diabetic retinopathy, people with diabetes should control their levels of blood sugar, blood pressure, and blood cholesterol.

Focal laser treatment stabilizes vision. In fact, focal laser treatment may reduce the risk of vision loss by 50 percent. In a small number of cases, if vision is lost, it can be improved. Contact your eye care professional if you have vision loss. Both focal and scatter laser treatment are performed in your doctor's office or eye clinic. Before the surgery, your doctor will dilate your pupil and apply drops to numb the eye. The area behind your eye also may be numbed to prevent discomfort. The lights in the office will be dim.

As you sit facing the laser machine, your doctor will hold a special lens to your eye. During the procedure, you may see flashes of light. These flashes eventually may create a stinging sensation that may be uncomfortable.

You will need someone to drive you home after surgery. Because your pupil will remain dilated for a few hours, you should bring a pair of sunglasses. For the rest of the day, your vision will probably be a little blurry. If your eye hurts, your doctor can suggest treatment.

Laser surgery & appropriate follow-up care can reduce the risk of blindness by 90%. However laser surgery often cannot restore vision already lost. That is why finding diabetic retinopathy early is the best way to prevent vision loss.

Low Vision Services

If you have lost some sight from diabetic retinopathy, ask your eye doctor about low vision services and devices that may help you make the most of your remaining vision. Ask for a referral to a specialist in low vision.

Many community organizations and agencies offer information about low vision counseling, training, and other special services for people with visual impairments. A nearby school of medicine or optometry may provide low vision services.

William F. Keeling Ph.D., M.D.
Board Certified Ophthalmologist

The Indiana Eye Clinic provides comprehensive eye care services and complete ophthalmic care including cataract, laser, refractive, lid and minor eye surgeries. Offices are located in Greenwood and Plainfield, Indiana. For information, visit www.indianaeyeclinic.com. Dr. Keeling is also available to see patients at Putnam County Hospital Annex in Greencastle. Call **317-839-7300** to schedule your appointment.

For questions regarding the Diabetes Education program available at Putnam County Hospital, contact Annette Handy, RN PCH Diabetes Nurse Educator 765-655-2583, 1542 S. Bloomington St., Greencastle, IN 46135. Regarding supplies and reimbursement for supplies, contact Cheri Phillips 765-655-2550.

Source: National Eye Institute 2020 Vision Place Bethesda, MD 20892-3655 (301) 496-5248 HYPERLINK "http://www.nei.nih.gov. 1998-2008 Mayo Foundation for Medical Education and Research.