

Silently, it steals your vision.

Welcome to SBH Bronx Health Talk produced by SBH Health System and broadcast from the beautiful studios at St. Barnabas hospital in the Bronx. I'm Steven Clark.

An estimated 3 million Americans have glaucoma, but only half of those know they have it. And if you don't do anything about it, it can rob you of your sight. Glaucoma is the second leading cause of blindness in the world and the leading cause of lost vision among African Americans who are 15 times more likely to become visually impaired from glaucoma than are Caucasians.

Open angle glaucoma, the most common type of the disease, occurs when the eye does not drain fluid as it should acting like a clogged drain. As a result eye pressure builds and starts to damage the optic nerve. With us today to discuss glaucoma is Dr. Michelle Packles, an ophthalmologist at SBH Health System. Welcome Dr. Packles.

We spoke a few weeks ago and you said that when you came to the Bronx you were surprised by the number of cases of advanced glaucoma that you've seen. Why do you think that is?

Some of the cases involved trauma and childhood. They just went untreated, undiagnosed and untreated, other patients have just progressed and unfortunately some of the vision in one eye has been stolen and then the other eye is close to gone. I've been noticing that in a significant number of patients here and that's what I want to try to get the message out to avoid because once glaucoma robs one of one sight there's no replacing the optic nerve to get vision back so it's very important to screen patients, screen the community, catch glaucoma early what we call glaucoma suspects follow them and the moment they start showing signs of glaucoma to treat them.

And again just so people understand, a glaucoma test is non-invasive. It's very simple, right?

Yes very simple.

Now if you have it in one eye does it usually progress to the second eye?

The type that you're talking about, yes. It's usually what we say is bilateral meaning in both eyes, but asymmetrical affects one eye more than the other, but the other eye that's less affected lags behind but eventually catches up.

And it can happen quickly right? I mean within a relatively short period of time or is it more progressive?

It's chronic and asymptomatic. It's kind of like high blood pressure. People walk around with high blood pressure and don't realize it and they have to go to their doctor to get their blood pressure checked. Same thing with this type of glaucoma that you're speaking of. It's painless, asymptomatic and it slowly robs one of one's vision but usually not central vision first it's usually

the side vision and slowly you don't recognize it.

What are the biggest risk factors for glaucoma?

Age is the biggest risk factor.

How old typically do you see it?

I mean between 60 and 80 the number of cases increases exponentially. Family history is important and then certain things that we measure in the eye clinic like intraocular pressure, the thickness of one's cornea in the central part and certain things that we see on what we call a visual field test is a test of the side vision, but age is something that is probably the biggest risk factor.

What other risk factors are there?

There's age, there's family history, essential corneal thickness, intraocular pressure the appearance of the optic nerve then there are lighter associations like diabetics, myopics, people who are nearsighted.

If you're over 60 how frequently should you get screened?

Everyone should have an exam once a year.

Everybody

Okay so it's not just for glaucoma it's across the board.

Okay so let's talk about treatments. If you have an issue what do you do?

There are a variety of treatments that are available. There's something that is called a laser. Also we can start with a laser and also we can start with medications. No matter what the cause of glaucoma is the treatment is all the same. This is to lower one's intraocular pressure. The laser can lower the intraocular pressure. It doesn't last forever but it is repeatable and it can keep a patient off of medications for a few years.

What is the medication like?

Just eye drops. First line medication is an eye drop. That's only once a day at night and that's a very effective drop. Then there are other medications that can be used. Some are twice a day, dosing occasionally three times a day, but usually it's just at night and then we add medications usually twice a day.

How do you decide between medication or laser or I guess surgery as well as another option?

Laser has been shown to be a very good option as first line therapy. If the clinic does not have the ways or we can do medications which are effective as well like that once a day drop at night. Surgery is saved for after medications no longer work or if the patient becomes allergic or if the patient is non-compliant doesn't take the medications and the pressure is at a level where the disease is progressing then surgery will be recommended but it's not a panacea it's not a cure-all. The goal of treatment for glaucoma is to have a patient have his or her vision for the duration of his or her life. We all lose what's called the nerve fiber layer as we age, but the glaucoma patients they lose that at a faster rate than their age-matched control so the goal of therapy is to slow the progression down to a point where they lose their neuro fiber layer at a rate that their age match controls are losing it or we just slow the progression of the disease down enough to keep the patient with vision, functional vision for the rest of his or her life.

It seems like if you intervene early enough you should be able to help virtually all these patients.

Not all. Some diseases okay

I'm talking about in most cases though is that fair to say?

I wouldn't say all I mean it's hard to say who will progress because you can have a disease that's being maintained and then all of a sudden the medications no longer work and where the patient becomes allergic and then the surgery didn't do what was supposed to do because the surgery is only 50 percent of the job of the battle. The post-operative courses to the other 50 percent depends upon how the patient heals. The best to do is to screen a community have people come into the eye clinic, screen them for glaucoma and catch the patients at the earliest possible point in the disease even when they're suspects that'll be the best time. We call them suspects we suspect it but we can't yet diagnose it and we follow them closely. That's the best time but if a patient already has glaucoma the best thing to do is to catch it as early as possible.

Are there any lifestyle issues that will help prevent it or ward it off longer?

There's really not much we can do to prevent the development of glaucoma. In terms of diet. root vegetables are very good. They take the nitrates from the soil and the nitrates have been shown to dilate vessels in the body but also dilate the vessels that supply the optic nerve. So if we eat root vegetables like beets, like straight from the ground not cooked or prepared in any way just over time it may we don't know this for sure but we do know that the nitrates can help with the vessel dilation. There's a theory that perhaps it helps with the optic nerve blood flow.

I've read also that exercise could have an impact possibly

In terms of keeping the patient healthy.

But not as far as the glaucoma?

No, it is not in terms of burning off glaucoma. I think the best thing to do is to keep a diet rich in nitrates and root vegetables and just eat well and we don't understand a lot about glaucoma the intraocular pressure if it's high it can help the development of glaucoma but then you have patients who have normal intraocular pressures that progress then there's also a theory the vascular theory where the optic nerve is not getting enough blood supply so we really don't know what the cause is but studies have shown that lowering pressure no matter what it is whether it's normal range whether it's in the high range lowering the pressure that a person maintains if glaucoma is progressing that's the only treatment that we have currently.

So bottom line if you have a family history of glaucoma the best thing you can do is regular screenings.

Yes I mean genes are in the process of being discovered that are related to the development of glaucoma but it's still early in in the process

We talked about open angle glaucoma. I guess trauma glaucoma is another type.

It is that it's an open angle glaucoma as well. It deals the same way with patients if you think about the eye as a sink or a bathtub I like to say there's a faucet that's open that pours water into the sink and then there's a drain the eye is just different that it's a closed system there's it's just like a balloon so you have a fluid going in and you have fluid going out and if there's not a balance between the input and the output the inflow and the outflow then the pressure of the system will rise and just think about water just going into a balloon but it's not escaping at the same rate so the balloon will get bigger and bigger and bigger and the pressure will go up traumatic. What it does is it affects the drainage. It destroys the drain in a way. It's the anterior chamber angle that's where the drain is and the angle gets damaged in the trauma and over time the eye will develop glaucoma and the pressure will go up because the eye is not able to drain fluid as well same thing happens the pressure goes up delicate cells of the optic nerve we're waiting into the optic nerve get damaged.

What other diseases eye diseases disorders that you see frequently here in the Bronx besides glaucoma?

Yeah oh we still have a diabetic retinopathy. Yeah anybody who has diabetes needs screenings.

Okay is early intervention again a key in working with those patients as well?

Absolutely, but the key for them is controlling their blood sugar and their blood pressure.

So Dr. Packles thank you for joining us today in SBH Bronx Health Talk. If someone wants more information or wants to make an appointment with you for a screening is there a number they can call.

718-960-6392.

Okay, great and I think that's important. If you haven't had a screening now's the time to do it. For more information on services available at SBH visit [www.sbhny.org](http://www.sbhny.org) and thank you for joining us until next time.