

EYE-Q

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Treating Glaucoma

October is National Glaucoma Awareness Month and I have been writing about the main types of glaucoma and how they can affect our vision. Today I will try to cover the types of treatment available to control the intraocular pressure (IOP) of the eye and protect us from sight loss.

The standard treatment for glaucoma, in the past has always been the use of eye drops and pills to control the IOP. Not every patient responds the same to these medications. In some cases, certain medications may not be indicated for treatment because of other medical conditions such as heart disease or breathing problems. In other cases, the side effects of the drugs may make their use intolerable for the patient.

It has been reported that over 60% of patients on glaucoma medications are not taking their medications properly either out of a concern for cost, convenience, confusion over the timetable for taking the drops or forgetfulness. Many patients feel that the medications are unnecessary because they see fine and their eyes don't bother them. Remember, glaucoma is called the "Silent Blinder" for good reason.

The main target for control of IOP in the eye is the control of aqueous humor (AH); the fluid produced in the eye to provide oxygen and nutrition to the inner tissues of the eye. Eye drops and other medications fall into three main categories: those that reduce the production of AH, those that increase the flow of AH back into the bloodstream, called outflow, and those that do a combination of reducing production and increasing outflow. It may be necessary to use more than one medication to adequately control the IOP to halt progression of the disease.

Patients who have the potential to develop glaucoma because of multiple risk factors and high IOPs may also need to have their IOP under stricter control. Studies by the National Eye Institute demonstrated that these patients reduce their risk of developing glaucoma by 50% when their IOP is brought under tighter control.

One of the biggest problems for patients is remembering when to take their medicines. Some drops require once a day treatment, other twice, three or even four times a day treatments. Imagine being on two or three different medicines and keeping their schedules straight while juggling your daily schedule.

Technology has once again given us very effective alternatives. In the late 1980s a laser was developed to treat glaucoma called Argon Laser Trabeculoplasty (ALT). By placing selective burns in the drainage meshwork of the eye it was reasoned that the openings in the meshwork would be stretched open with better outflow as the result. ALT worked in slightly better than 60% of cases. The down side was that it was not permanent and the

pressure started to rise again after three to five years. Unfortunately, re-treatments did not work to lower the pressure again.

New technology has changed this problem with the ALT treatment. With the development of the Selective Laser Trabeculoplasty (SLT) more than 80% of treated patients obtain better control of their IOP with close to 80% of those patients being able to reduce or eliminate their need for medications to treat their glaucoma. The lasting effect of the laser is variable from 3-5 years, typically. The importance difference is that the SLT is a repeatable treatment if the IOP rises. This is because the SLT does not burn tissue but, rather stimulates the natural defenses of the body to go in and clean out the meshwork of the debris that is restricting outflow much like Drano on a stopped up drain.

In my experience with both lasers I have to say that the SLT has been much better tolerated by my patients than the ALT with longer lasting effect in a greater number of cases. That is why I only offer SLT in my practice for treating both glaucoma and ocular hypertension.

Not all treatments are effective for all patients. It is important to discuss the options available to you with your eye doctor to ensure the best control with the fewest problems.

If you have questions about your eye health e-mail Dr. Barowsky at doctom@tdkj.com and we'll try to answer your questions here at Eye-Q.