

Pigment Dispersion Syndrome & Pigmentary Glaucoma

Pigment dispersion syndrome is a condition that happens when pigment rubs off of the back of the iris of the eye when the fibers supporting the lens rub against it. This pigment is deposited in the eye's trabecular meshwork, where the fluid drains out. Up to 50 percent of people with this condition can develop elevated eye pressure and glaucoma if the pigment decreases fluid outflow. This condition is more common in nearsighted people. Your doctor will carefully examine the lens after your pupils are dilated to detect the subtle signs of exfoliation. Remember that caring for your eyesight begins with complete eye examinations. A comprehensive evaluation is the best way to detect eye conditions such as glaucoma early so that it can be addressed before it develops into something more serious.

Pigment Dispersion Syndrome

Relatively young, Caucasian and nearsighted, this fits the typical profile for this syndrome. Although rare, pigment dispersion syndrome and pigmentary glaucoma tend to occur younger than primary open-angle glaucoma.

Pigment dispersion syndrome occurs when pigment granules that normally adhere to the back of the iris (the colored part of the eye), flake off into the clear fluid produced in the eye, called the aqueous humor. Sometimes these granules flow toward the drainage canals of the eye, slowly clogging them and raising eye pressure. This rise in eye pressure can damage the optic nerve, the nerve in the back of the eye that carries visual images to the brain. If this happens, pigment dispersion syndrome becomes pigmentary glaucoma.

Treatment

Doctors often treat pigmentary glaucoma with eyedrops such as Betagan, Timoptic, Optipranlol and Xalatan. These eyedrops have a relatively low incidence of side effects and are generally well-tolerated in younger patients. Doctors may also use medications such as Pilocar, and Ocusert, which are from a class of drugs called miotics. These medications cause the pupil to constrict (become smaller) and inhibit the iris from rubbing against the supporting fibers of the eye's lens, helping to prevent further release of pigment. However, miotics have side effects such as blurred vision which can limit their use.

In some patients, laser trabeculoplasty works well. This procedure helps open up the drainage system in the eye to increase fluid flow, which lowers eye pressure and protects the optic nerve.

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Another treatment for pigmentary glaucoma is a procedure called a laser iridotomy. A laser is used to make a small hole in the iris, causing the iris to move away from the lens of the eye. This prevents the lens fibers from scraping the pigment from the iris and clogging the eye's fluid flow. However, it has limitations and does not always achieve its desired effect. Researchers are now conducting more evaluations of this procedure to determine its effectiveness.

The Exercise Connection

Studies have found that vigorous exercise such as jogging and basketball can cause more pigment to be released from the iris, which can further block eye drainage. Patients with pigment dispersion syndrome or pigmentary glaucoma should discuss this issue with their doctor.

Progression of pigment dispersion syndrome into pigmentary glaucoma

It is estimated that pigment dispersion syndrome develops into pigmentary glaucoma in about 30% of cases. Although pigment dispersion syndrome appears to strike both men and women at an equal rate, researchers are investigating why men develop pigmentary glaucoma up to three times more often than women. Studies have also shown this syndrome develops into pigmentary glaucoma at a younger age in men than in women.