
Our vision: Is for Australians to be free of glaucoma blindness

Mixed Mechanism Glaucomas

Combined mechanism glaucomas refers to an eye with elevated pressure in which both open-angle and angle closure glaucoma mechanisms are present. Usually the structure of the eye is similar to that found in eyes with angle closure glaucoma – that is; the globe is somewhat smaller than ideal, with the result that the internal ocular components are crowded together.

This means the coloured part of the eye (the iris) is very close to the trabecular drainage tissues, making it difficult for the aqueous fluid to gain access to the drain, and raising the possibility that the iris tissues can completely block the drain.

Who is at risk?

It is more common in long-sighted eyes, older people, women, and in Asian populations.

Symptoms

A sudden rise in pressure produces dramatic symptoms: blurred vision, coloured rings around lights, severe pain in and around the eye, redness, nausea, and possibly vomiting.

Treatment

A peripheral iridotomy procedure, usually performed with a laser, permits the iris to fall back, away from the drain, allowing the aqueous to access the drain and thereby permitting the pressure to fall to normal levels.

However, if iris tissue (because of its previous proximity) has blocked the drain intermittently or repeatedly, the drainage system may be functionally

impaired. Consequently, this will abnormally resist the drainage of aqueous even when opened by laser peripheral iridotomy.

In the case of mixed mechanism glaucomas the affected eye also has an open-angle glaucoma mechanism causing raised pressure, so that once the angle closure component has been eliminated, the drain still does not operate efficiently and the pressure remains too high for the safety of the optic nerve fibres.

Long-term drops, laser treatment to the drain itself, or even drainage surgery may become necessary to preserve sight, just as in the open-angle glaucomas.

These situations are known as "combined mechanism glaucomas". Often the diagnosis can only be made once the angle closure element has been removed, and the pressure subsequently monitored. It means that when angle closure has been treated successfully long-term care and observation remain vital to ensure that should open angle glaucoma occur it is promptly detected thus minimising the risk of unnecessary blindness.

Ongoing Management

As with other types of glaucoma, regular review by an eye specialist is critical to ensure that you do not develop substantial vision impairment.

