



Amigos de la Gente de Edad

Glaucoma

How does the eye function?

When one looks at an object, the image passes to the brain by means of the optic nerve, which is like an electric cable that has hundreds of threads. **THIS IS VISION.**

Each one of these 'threads' transports part of the visual message to the brain. The projection which the eye is 'filming' is carried simultaneously to the rear part of the brain, just like a screen. From this, one has the sensation that one is seeing a film.

What is Glaucoma?

The eye is filled with a transparent liquid which is continuously entering and leaving it so that there is always a constant quantity at any one time.

If the duct is totally or partially blocked, the eye being a closed cavity, the liquid continues to enter, increasing the pressure, and flattening the small arteries which 'feed' the 'threads' and a number of them are destroyed due to lack of oxygen and nutriment.

Therefore, Glaucoma can damage these 'threads' at the duct of the eye causing the effect of blind spots until the injury to the nerves is extensive and unrecoverable, causing partial blindness.

It is vitally important to diagnose and treat the illness **BEFORE UNRECOVERABLE DAMAGE APPEARS.** This is why it is important that all adults visit an eye specialist for a periodical eye examination.

Are there different types of Glaucoma?

a) It exists when the drain duct becomes obstructed due to age.

In this case, the pressure will gradually continue to increase and injury will come about slowly.

This is known as CORNICE GLAUCOMA. It is most common and deceptive because it happens without obvious discomfort, as one is not forewarned.

b) Another instance is when the duct has been incorrectly formed since birth.

In this case, as the baby's eye grows it is very elastic and the pressure increases as the eye grows. There is a reaction to light and a constant watering. This is CONGENITAL GLAUCOMA.

c) A further example is when a part of the eye is too near the 'drain' duct creating a 'plug' effect.

In this case, the pressure will grow rapidly creating pain, blurred vision, rainbow-effect around lights, nausea and vomiting. One **MUST** go immediately to a doctor for rapid treatment to avoid blindness which will occur in a few hours. This is **ACUTE GLAUCOMA**.

d) Other reasons for obstruction can occur due to certain medicines being taken which narrow the duct, causing haemorrhages, tumours and inflammation. This is known as **SECONDARY GLAUCOMA**.

How does one discover its existence?

A specialist will know at once if there is a problem by external examination and by measuring the pressure inside the eye. This is not painful; he will look inside the eye, using a light, to see if the nerve is healthy. He will carry out tests to discover possible blind spots.

There is very modern equipment for the detection of glaucoma that includes ophthalmoscopes and retinography to examine the optic nerve. The computerised examination of peripheral vision facilitates detection and calculates the severity of loss of vision.

Remember that some families are predisposed to Glaucoma and should be regularly examined.

Diagnosis

There is very modern equipment for the detection of glaucoma that includes ophthalmoscopes and retinography to directly visualize the optic nerve. The computerised perimeter facilitates detection and calculates the severity of the loss of vision due to glaucoma.

Treatment

As well as the effective early diagnosis with continuous treatment with drops to reduce the pressure of the eye, there are also other treatments for acute glaucoma. This can be treated with Laser YAG and Argon Laser. Chronic glaucoma can be treated by trabeculoplastias. Intraocular microsurgery can be used with a local or general anaesthetic for combined glaucoma and cataracts.

People at risk

People over 40 years of age should visit an ophthalmic surgeon regularly. Other people at risk of those with diabetes, short sight, with close family relations who have glaucoma, and those who suffer high blood pressure or have cardiovascular illness.

REMEMBER THAT GLAUCOMA IS ONE OF THE MOST SERIOUS CAUSES OF BLINDNESS IN THE WORLD.

How can it be treated?

The type of treatment varies of course according to the type of Glaucoma from which the patient is suffering.

The most normal treatment is the use of medication in drops or tablets taken throughout the day which help the drainage of the eye fluid or reduce the entrance of the fluid into the eye. This reduces the pressure.

Sometimes certain medicines are not sufficiently effective and it is necessary to operate, opening the duct a little, to avoid sight deterioration.

A periodical inspection by an eye specialist is important to review the medication dosage in order to achieve the best ocular pressure.

IT IS IMPORTANT TO KNOW that some medication can produce unwanted side effects. Some produce itching, others can affect the heart rate slightly, the blood pressure or breathing. These effects are not important even for people with heart or lung problems.

As well as the importance of an early diagnosis and treatment with drops to reduce the pressure in the eye, there are also other treatments for acute glaucoma. This treatment is with Laser YAG and Argon Laser. Chronic glaucoma can be treated by trabeculoplastias. Intraocular microsurgery can also be used with a local or general anaesthetic for a patient with both glaucoma and cataracts.

Can it be cured?

The sad fact is that injury to the OPTIC NERVE is not reversible and is therefore permanent and cannot be corrected. If treatment commences before true damage takes place there will be a greater possibility of maintaining good vision and controlling the illness for the rest of one's life.

Because there could be strong side effects from certain medication which could involve surgery, either by laser or normal type operation, to create a new 'drain' permitting a reduction in the pressure, it is very important to follow a treatment programme and never stop this until you are told to do so.

People at risk

People over 40 years of age should visit an ophthalmic surgeon regularly. Other people at risk are those with diabetes, myopia (short sight), those who have close family relations who have glaucoma and those who suffer high blood pressure or have cardiovascular illness.

Source: Dr Luis Salvá Ladaria, Oftalmedic Centro Ocular, Clinica Juaneda, Palma de Mallorca

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