## Definition

 Glaucoma is a group of disorders in which the pressure of fluid within the eye gradually increases to a level that irreversibly damages the sensitive tissues of the eye, most notably the optic nerve which transmits visual images to the brain.

## Cause

- Anterior chamber is the fluid (aqueous humour) filled front portion of the eye. If the drainage of this fluid from the anterior chamber is restricted, pressure builds up within the eye causing irreversible damage to the optic nerve thereby causing a permanent loss of vision.
- Individuals over the age of 40 as well as persons with myopia, diabetes, or a family history of glaucoma are at an increased risk of developing glaucoma. Individuals who have sustained eye trauma or use corticosteroids are also at an increased risk.

## Symptoms

 Most glaucomas remain asymptomatic until advanced stage. Hence *periodical check up*, especially for those at risk, is necessary to detect glaucoma early.





Origin of aqueous humour

- Some individuals, especially if there is a rapid build up of eye pressures, may experience one or more of the following symptoms:
  - Pain around the eyes when coming out from darkness (e.g., as soon as the person comes out of a theatre).
  - Coloured halo rings seen around bulbs, especially during mornings and nights.
  - Frequent change of reading glasses, headaches, pain and redness of the eyes.
  - Reduced vision in dim illumination and during nights.
  - · Gradual decrease of side vision.
  - · Blurring of vision.

## Detection

The three basic tests in the detection of glaucoma are:

- · Checking the pressure inside the eye.
- Inspection of the optic nerve after dilating the pupils.
- Testing the side vision by a computer assisted test called perimetry (visual field examination).

## Treatment

- Glaucoma cannot be cured. Appropriate treatment and regular follow-up can preserve residual vision from further damage.
- Several drugs are available to reduce fluid formation within the eye or promote their drainage from the eye. For most glaucoma patients, regular use of medications will suffice to control the pressure inside the eye. However, if the pressure control is not satisfactory other modalities like laser or surgery may have to be resorted to.



Congenital glaucomo

- In some type of glaucomas, called angle closure glaucomas, laser treatment is used to reduce eye pressure. This is a simple outpatient procedure.
- In individuals where medical or laser treatment is insufficient to arrest glaucoma, surgery is indicated. This treatment option has its risks and limitations and is reserved as treatment of last resort.



Early glaucoma is hardly noticeable



Without proper treatment it will advance and eventually ....



#### Remember

- Glaucoma cannot be cured, only controlled. ٠
- Vision lost due to glaucoma cannot be recovered. ٠
- Early detection and treatment of glaucoma, before ٠ it causes significant visual loss, is the ideal way to control the disease
- It is essential that persons above the age of 40 have ٠ their eyes examined periodically to detect glaucoma early.
- Glaucoma is not an infectious disease, but may be ٠ hereditary. So, if any one in the family has glaucoma, it is advisable that the rest of the family members have their eyes examined, periodically,
- Once diagnosed as having glaucoma, the patient ٠ should be committed for lifelong treatment and periodical eye check-up.
- Drugs prescribed should be regularly used at ٠ specified time, to ensure round-the-clock pressure control. Medications may cause few undesired effects. In the event of any adverse effect, the patient must approach the ophthalmologist immediately for alternate treatment.



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