Glaucoma

Glaucoma is an optic nerve disease. Optic nerve consists of ganglion cells that carry signals from the eye towards the brain. The nerve damage in glaucoma involves loss of retinal ganglion cells in a characteristic pattern. Raised pressure within the eye ball (above 21 mmHg) is the most important and modifiable risk factor for glaucoma. However, some may have high eye pressure for years and never develop damage, while others can develop nerve damage at a relatively low pressure. Untreated glaucoma can lead to permanent damage of the optic nerve and resultant visual field loss, which over time can progress to blindness. Glaucoma is considered as "silent thief of sight" because the loss of vision often occurs gradually over a long period of time. The central vision is usually preserved in the early stages of the disease due to which the disease remains unnoticed until the advanced stages till the central vision is also lost. Some patients even do not notice the loss of vision in one eye until the second eye also gets severely damaged. Once lost, vision cannot normally be recovered, so treatment is aimed at preventing further loss. If the condition is detected early enough, it is possible to slow the progression with medicines, lasers and surgical means. Important risk factors for glaucoma include increased eye pressure, trauma, refractive errors (farsightedness or nearsightedness), eye inflammation, diabetes, family history of the disease and use of steroids. Although the disease usually affect the people after 40 years of age but it can also occur in younger individuals specially if any of the above risk factors are present. A type of glaucoma can even be present at the time of birth (congenital glaucoma).

Tests of Glaucoma:

TONOMETRY:

The eye is numbed via eye drops after which the examiner uses a tonometer to measure the inner pressure of the eye.

GONIOSCOPY:

Eye drops are used to numb the eye after which a contact lens with a mirror is placed gently on the eye to see the angle between the cornea and the iris. This test usually helps to distinguish between open and closed angle types of glaucoma. It also helps to plan the management of glaucoma.