

## Regular eye check up and treatment can save vision

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| <b>Feature</b>      |
| <b>Glaucoma Day</b> |

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World Glaucoma Week is held in March each year to increase awareness about glaucoma. Glaucoma is largely an invisible disease but a leading cause of irreversible blindness due to the damage caused to eye's optic nerve by the increase in intraocular pressure. If damage to the optic nerve from high eye pressure continues, glaucoma will cause permanent loss of vision. Without treatment, glaucoma can cause total permanent blindness within a few years.

### **Definition**

Glaucoma is the name given to a group of eye diseases in which the optic nerve at the back of the eye is slowly destroyed. In most people this damage is due to an increased pressure inside the eye - a result of blockage of the circulation of fluid inside eye ball (aqueous) or its drainage. In other patients the damage may be caused by poor blood supply to the vital optic nerve fibers, a weakness in the structure of the nerve, and/or a problem in the health of the nerve fibers themselves. While it is more common as people age, it can occur at any age.

### **How Does Pressure Rise in the Eye**

Glaucoma usually occurs when pressure inside eye increases. This can happen when eye fluid isn't circulating normally in the front part of the eye. Normally, this fluid, called **aqueous humor**, flows out of the eye through a mesh-like channel. If this channel becomes blocked, fluid builds up, causing glaucoma. The direct cause of this blockage is unknown, but doctors do know that it can be inherited, meaning it is passed from parents to children.

Less common causes of glaucoma include a blunt or chemical injury to the eye, severe eye infection, blockage of blood vessels in the eye, inflammatory conditions of the eye, and occasionally eye surgery to correct another condition. Glaucoma usually occurs in both eyes, but it may involve each eye to a different extent.

### **Types of glaucoma**

Chronic (primary open-angle) glaucoma is the most common form of this disease. However, other forms occur:

- Low-tension or normal tension glaucoma. Occasionally optic nerve damage can occur in people with so-called normal eye pressure. This form of glaucoma is treated in the same manner as open-angle glaucoma.

- Acute (angle-closure) glaucoma. Acute glaucoma is when the pressure inside the eye rapidly increases due to the iris blocking the aqueous flow. An attack of acute glaucoma is often severe. People suffer pain, nausea, blurred vision and redness of the eye. Immediate medical help should be sought. If treatment is delayed there can be permanent visual damage in a very short time. Usually, laser surgery performed promptly can clear the blockage and protect against visual impairment.
- Congenital glaucoma. This is a rare form of glaucoma caused by an abnormal drainage system. It can exist at birth or develop later. Parents may note that the child is sensitive to light, has enlarged and cloudy eyes, and excessive watering. Surgery is usually needed.
- Secondary glaucoma. This glaucoma can develop as a result of other disorders of the eye such as injuries, cataracts, eye inflammation. The use of steroids (cortisone) has a tendency to raise eye pressure and therefore pressures should be checked frequently when steroids are used.

### **What are the symptoms of glaucoma?**

Because most people with glaucoma have no early symptoms or pain from this increased pressure, it is important to see your eye doctor regularly so that glaucoma can be diagnosed and treated before long-term visual loss occurs. If you are over age 40 and have a family history of glaucoma, you should have a complete eye exam with an eye doctor every one to two years. If you have health problems such as diabetes or a family history of glaucoma or are at risk for other eye diseases, you may need to visit your eye doctor more frequently.

Chronic (primary open-angle) glaucoma is the most common type. It has no symptoms until eye sight is lost at a later stage. Damage progresses very slowly and destroys vision gradually, starting with the side vision; the person remains unaware of any problem until a majority of nerve fibers have been damaged, and a large part of vision has been destroyed. This damage is irreversible. It is progressive and usually relentless. Treatment cannot recover what has been lost. But it can arrest, or at least, slow down the damage process. That is why it is so important to detect the problem as early as possible, to be able to start treatment with as little damage to the vision as possible.

Although anyone can get glaucoma, some people have a higher risk. These include a family history of glaucoma, diabetes, migraine, short sightedness (myopia), blood pressure, past or present use of cortisone drugs (steroids) etc.

## **How to treat**

Although there is no cure for glaucoma it can usually be controlled and further loss of sight either prevented or at least slowed down. Treatments include:

- Eye drops
- Laser (laser trabeculoplasty) - this is performed when eye drops do not stop deterioration in the field of vision. In many cases eye drops will need to be continued after laser. Laser does not require a hospital stay.
- Surgery (trabeculectomy) - this is performed usually after eye drops and laser have failed to control the eye pressure. A new channel for the fluid to leave the eye is created.

## **Government Initiatives**

National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100% Centrally Sponsored scheme with the goal to reduce the prevalence of blindness from 1.4% to 0.3%, by the year 2020. As per Survey in 2001-02, prevalence of blindness is estimated to be 1.1 and during 2006-07 showed reduction to 1%.

Among main causes of blindness Glaucoma accounts for 5.80%. During the XII plan NPCB envisages to reduce the backlog of blindness through identification and treatment of blind at primary, secondary and tertiary levels based on assessment of the overall burden of visual impairment in the country; Develop and strengthen the strategy of NPCB for “Eye Health” and prevention of visual impairment; through provision of comprehensive eye care services and quality service delivery; Strengthening the existing and developing additional human resources and infrastructure facilities for providing high quality comprehensive Eye Care in all Districts of the country; enhance community awareness on eye care and lay stress on preventive measures; Increase and expand research for prevention of blindness and visual impairment and secure participation of Voluntary Organizations/Private Practitioners in eye Care.

Regular eye check up, especially after 40 years and immediate treatment can save remaining vision but it does not improve eye sight affected due to Glaucoma.

**March 6<sup>th</sup> is Glaucoma Day**

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(PIB Features)