

What is Trabeculectomy?

Glaucoma covers a wide range of diseases in which the one common factor is the elevated eye fluid pressure. This in turn causes damage to the optic nerve associated with characteristic loss of visual field. Initial treatment is with eye drops. When treatment with eye drops does not lower intraocular pressure to a safe level; your eye doctor may determine that glaucoma surgery should be performed. One way to reduce pressure in an eye with glaucoma is to make a new drainage pathway for the eye. This type of surgery is called trabeculectomy.

In trabeculectomy, a tiny piece of the wall of the eye, which may include the trabecular meshwork (the natural drainage areas) is removed. This opens a new drain, which creates a bypass of the trabecular meshwork. The eye pressure is reduced, because fluid can drain with relative ease through the new opening into a reservoir from where it is absorbed by the body.

The goal of trabeculectomy is to lower eye pressure, it is hoped that the operated eye will be spared further glaucoma damage and can maintain its vision. Following surgery vision remains the same. Occasionally, there can be some loss of vision.

What is done before Trabeculectomy?

Eye drops and pills which are being used to lower eye pressure are continued until the time of surgery unless directed otherwise. Occasionally eye drops and pills are discontinued for as long as two weeks before surgery. It is particularly important to discontinue the use of aspirin, or any pill containing aspirin for a few days before surgery, since use of aspirin can cause undesirable bleeding at the time of surgery.

What type of anesthesia should be used?

To relax the patient and reduce discomfort, a trabeculectomy is usually done under local or topical anesthesia, so that there is no discomfort. Sometimes a general anesthetic is used, in which the patient is made unconscious for the operation. Local anesthesia offers several advantages there may be less pain after surgery, and there is no sore throat from the airway tube used in general anesthesia. Patients retain normal alertness without the nausea. With local anesthesia, there is less bodily risk than with general anesthetic, especially in the elderly or those with health problems. The surgery itself takes much less than one hour in most cases.

What happens to the eye after trabeculectomy?

After trabeculectomy, the eye generally is covered by an eye patch and protected by a plastic shield overnight. On the morning following surgery, it is removed and the eye is examined. Eye drops are then prescribed to relax the muscle inside the eye, prevent infection and reduce inflammation. Occasionally, a pill may be prescribed to further reduce inflammation. It is important to take these as directed, since they can make a great deal of difference in the success of the procedure.

For several weeks following the surgery, the eye is closely and frequently observed. During this time the eye may have a very low pressure and be unstable. It is important to protect the eye and avoid lifting heavy objects, bending or straining. A cough suppressant may be needed if you have a cough or a stool softener to ease bowel movement. It is important to keep the eye clean and dry since the eye may be susceptible to infection immediately after the surgery. It is recommended that you sleep on the side opposite the operated eye and protect it during sleep by wearing a plastic shield.

One problem, which can occur after trabeculectomy, relates to natural healing. The natural response of the body to an injury is for healing to occur by formation of a scar. If the healing response is strong, too much scar tissue will be produced. The scar tissue can overgrow the site of the operation and seal the drainage hole. If this occurs, the eye pressure will rise again and require a return to eye drops, pills or possibly another operation to reduce the pressure.

Success with trabeculectomy

Although the results of the trabeculectomy depend on numerous factors and can vary greatly, as a general rule, more than 70% of operated eyes will have satisfactory eye pressure and there after surgery. If eye drops are added, over 90% of eyes will have a satisfactory lowering of the pressure.

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