

Introduction

- Glaucoma is mainly due to the imbalance of fluid secretion and outflow within the eyeball, so the pressure inside the eyeball remains abnormally high. The high pressure may cause irreversible progressive optic nerve damage, resulting in reduction in vision, visual field loss and blindness.
- A glaucoma operation is to create a small drainage site in the wall of the eyeball to facilitate the outflow of intraocular fluid in a controlled manner and the aim is to prevent further deterioration of visual functions and ocular damage caused by the raised intraocular pressure. Usually, the intraocular pressure can be controlled by the operation.
- Unfortunately even when the intraocular pressure is controlled, the damaged optic nerve and related vision functions cannot be restored. In some circumstances, if the intraocular pressure cannot be controlled after the operation, additional topical or oral anti-glaucoma drugs may be required. If the imbalance of intraocular fluid secretion and outflow is still significant after the operation, you may need another operation to prevent further deterioration.

Procedure

1. The procedure is usually performed under local anaesthesia. The doctor gives medications to numb the procedure site and you will remain awake, general anaesthesia may be used in special circumstances.
2. With the use of special instrument, a tiny piece of tissue is removed from the wall of the eyeball to create a small hole as the drainage site.
3. Intraocular fluid can then be drained through the hole to re-enter the bloodstream. As a result, eye pressure can then be reduced and stabilized.
4. Anti-metabolites (such as Mitomycin C or 5-Fluorouracil) which delay wound healing may be used to improve the success rate of the glaucoma operation.
5. Eye patch may be applied to cover and protect the procedure site in the early post operative period.

Pre-operative preparation

1. You should continue to use the usual eye drops or medications unless directed by doctor otherwise.
2. Inform your doctor if you have other systemic disease such as hypertension, stroke, heart disease, diabetes or take western medication (especially blood

thinners like Aspirin or Warfarin), traditional Chinese medicine or healthy supplements on a regular basis.

Possible risks and complications

A. In general, glaucoma surgery is a safe and low risk of operation. However, apart from possible complications related to anaesthesia, complications can occur occasionally even days, weeks, months or years after the surgery including:

- Wound gapping.
- Bleeding in the eye.
- Infection.
- Chronic inflammation.
- Irritation or discomfort in the eye.
- Button holes in conjunctival flap covering the fluid outlet may cause uncontrolled leakage of eye fluid.
- Sometimes an initial period of low / high intraocular pressure may occur; the vision may be affected during this initial period of a couple of weeks.
- Failed to normalize pressure (too low / too high), in eye, may need to re-operate.
- Recurrence of intraocular fluid secretion and outflow imbalance in eye and a second surgery is needed.
- Development of cataract or deterioration of pre-existing cataract.
- Degenerative changes in the eye, the vision may get worse.
- Loss of vision.

B. Complications related to anti-metabolites

- Corneal surface toxicity.
- Keratitis.
- Corneal scleral melting.
- Cataract.
- Thin bleb.
- Hypotony.
- Maculopathy.
- Decrease in visual acuity.

Post-operative information

A. After operation

1. Keep eye patch or eye shield on if any as instructed by your doctor.
2. Use eye drops or eye ointment as prescribed by your doctor; those medications will help to prevent infection and inflammation.
3. Keep the wound clean, avoid eye rubbing.
4. Do not expose your eye to water such as showering or swimming.
5. Avoid washing your hair during the first week after the operation in order to prevent dirty water getting into the eye causing infection.
6. Wear clothes with buttons and not pullovers so as to avoid the clothes coming in contact with the operated eye causing infection.
7. Have light on at night time when you go to toilet in order to prevent falls as you may not be accustomed with one eye being patched after the operation.
8. Avoid unnecessary straining after surgery. If you have constipation, take liberal amounts of vegetables and fruits to alleviate your constipation if there is no contraindication.
9. You may be recommended to sleep on the side opposite to the operated eye and protect the operated eye during sleep by wearing an eye shield.

B. Home care advice after operation

1. For several weeks following the surgery, your eye doctor will observe your eye closely and examine you frequently. During this time period, the eye pressure has not yet stabilized. Avoid lifting heavy objects, bending or straining.
2. You must follow instructions strictly on taking medications and see the doctor as scheduled.
3. Eyeball pressure and signs of recurrence will be monitored. You may need to restart eye drops to control glaucoma if the pressure shoots up again or even another operation if the pressure is uncontrolled.
4. If you have any excessive bleeding, severe pain, fever or signs of wound infection such as redness, swelling or large amounts of foul-smelling discharge coming from your eye, see your doctor immediately or attend the nearby Accident and Emergency Department.

Remark

The above mentioned procedural information is not exhaustive, other unforeseen complication may occur in special patient groups or different individual. Please contact your physician for further enquiry.

Reference: http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html

I acknowledge that the above information concerning my operation/procedure has been explained to me by Dr. _____. I have also been given the opportunity to ask questions and receive adequate explanations concerning my condition and the doctor's treatment plan.

Name:

Pt No.:

Case No.:

Sex/Age:

Unit Bed No:

Case Reg Date & Time:

Attn Dr:

Patient / Relative Signature: _____

Patient / Relative Name: _____

Relationship (if any): _____

Date: _____