



Procedure Information Sheet

Introduction

Retina is the light sensitive layer of tissue which lines the inside of the eye and responsible to send visual images through the optic nerve to the brain. In most cases, retinal detachment is caused by break(s) in the retina which allow fluid to go underneath the retina, causing separation of the retina from its normal position.

Once the retina is detached, its blood supply is compromised, therefore affecting its function and vision. If left untreated, the condition may lead to permanent blindness.

The Operation / Procedure

The surgical repair involves sealing all the break(s) and re-attaches the detached retina to its normal position. The procedure is generally performed under general anesthesia and sometimes under local or regional anesthesia. There are different procedures that could be used depending on the circumstances, such as pneumatic retinopexy, scleral buckling and vitrectomy.

1. Pneumatic Retinopexy

A gas bubble is injected into the eyeball. The gas bubble pushes the retina back to its normal position and closes the break. Patient required to adopt a specific posture in order to maximize the effect of the gas bubble for a period of time after operation. Laser or cryotherapy would be used to seal the break(s) in the retina.

2. Scleral Buckling

Explants are placed on the outside of the eyeball to cause inward indentation of the eyeball whereby apposing the detached retina back to its normal position. If necessary, additional procedures such as vitrectomy, fluid drainage at the site of the detachment etc. will also be performed.

3. Vitrectomy

The vitreous gel is removed from the inside of the eye and replaced with special physiological saline solution. Gas bubble or silicone oil may be injected to push the retina back to its normal position. Laser or cryotherapy would also be used to seal off all the retinal breaks. Patient will be required to adopt a specific posture to maximize the effect of the gas bubble or silicone oil for a period of time after operation.

The choice of operation depends on various factors. Sometimes more than one procedure is needed, for example scleral buckling procedure may be performed together with the vitrectomy for certain types of retinal detachment.

Before the Operation / Procedure

1. Inform doctor if you have other systemic diseases such as hypertension, stroke, heart disease, diabetes or on regular western medications (especially blood thinners like Aspirin or Warfarin), traditional Chinese medicine or health foods.
2. Blood tests, chest x-ray may be required to prepare if surgery is performed under general anesthesia.
3. According doctor's order to fast before surgery if surgery performed under general anesthesia.

Patient's Label

Patient Name: _____

Hospital No: _____

Episode No: _____



Retinal Re-attachment surgery

Retinal Re-attachment surgery

After the Operation / Procedure

- The operated site will be covered with an eye pad and an eye shield. Do not remove the patch until you are instructed by the doctor, attend follow up appointment as scheduled
- Avoid eye rubbing. Avoid dirty water getting into your operated eye for the first week.
- You may need to maintain a special head posture for a period of time after the operation. When there is gas in the eye during the post-operative period, do not travel by air or travel to high altitude. Your vision will usually improve gradually when the eye is recovering well and the gas is being absorbed.
- If you notice the following signs or symptoms, you should contact your doctor, Eye Centre or Out-patient Centre for consultation.
 - excessive bleeding
 - severe pain
 - fever
 - signs of infection like redness, swelling, large amount of discharge or odor
- No vigorous physical activity until allowed by your doctor
- Vision may remain blurred during the early postoperative period especially when gas has been injected during the operation or when the eye condition is not stable yet.
- When there is gas in the eye during the post operating period, and if you need any other surgical procedure especially under general anesthesia, you must inform the surgeon and anesthetist for special precaution and management. Wear your bracelet and keep the gas card until fully absorption of the gas.
- Advise use dim light when you go to toilet at night to avoid fall.
- Advise wear clothes with buttons and no pullovers to prevent the clothes coming into contact with the operated eye to prevent infection.
- Some people may achieve good vision after surgical repair. Some may achieve various degrees of working or navigational vision. The outcome depends on the extent, chronicity and the complexity of the retinal detachment, especially whether there is involvement of the macula, the response of the eye to the operation and the occurrence of any significant complications. If the retina detachment cannot be repaired, the vision will usually get worse and may become blind

Risk and Complication

The surgery is a major operation but is safe in general. However, the following risks and complications may sometimes occur:

- Abnormally high or low intraocular pressure
- Glaucoma
- Corneal decompensation
- Cataract
- Anterior segment ischemia
- Intraocular bleeding
- Infection endophthalmitis
- Exposure of explant and extrusion that may require removal
- Squint and double vision
- Maculopathy-macular pucker
- Failure to re-attach the retina even after multiple surgeries
- Re-detachment of retina
- Retinal fibrosis and scarring
- Venous air embolism causing death

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Retinal Re-attachment surgery

Retinal Re-attachment surgery

- Change in refractive status, increase in short-sightedness after scleral buckling procedure
- Phthisis Bulbi
- Additional operations
- Risks of anesthesia
- The above complications can potentially lead to visual loss or permanent blindness

Disclaimer

This leaflet only provides general information pertaining to this operation /procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

- Smart Patient Website by Hospital Authority: Retinal Re-attachment surgery (11/2022)
- Coordinating Committee in Ophthalmology, Hospital authority. (2022, June 24). Retinal Re-attachment Surgery (Version 5). Smart Patient.
https://www.ekg.org.hk/pilic/public/Ophthal_PILIC/Ophthal_RetinalReattachment_0073_eng.pdf

Patient's Signature: _____ Date: _____

Patient's Label

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