Pneumatic Retinopexy for Retinal Detachment

Table of Contents

• Surgery Overview
• What To Expect After Surgery
• Why It Is Done
• How Well It Works
• Risks
• What To Think About
• Credits

Surgery Overview

Pneumatic retinopexy is a surgery to repair certain types of retinal detachments. It is usually an outpatient procedure, which means you don't need to stay in the hospital.

Before surgery, your eye is numbed with local anesthesia. Then the eye doctor (ophthalmologist) injects a gas bubble into the middle of the eye. Your head is positioned so that the bubble floats to the detached area and presses against the detachment. The eye doctor then seals the tear in the retina using a freezing probe or laser beam.

The bubble helps to flatten the retina until a seal forms between the retina and the wall of the eye. This takes about 1 to 3 weeks. The eye slowly absorbs the gas bubble.

What To Expect After Surgery

It takes about 3 weeks to recover from this surgery. The hardest part of the recovery is keeping the gas bubble in the right place.

• You must keep your head in a certain position for most of the day and night for about 1 to 3 weeks after the surgery.
• You cannot lie on your back. If you do, the bubble will move to the front of the eye and press against the lens instead of the retina.
• You must avoid air travel until your eye has healed. A change in altitude could cause the gas bubble to expand. This would increase the pressure inside the eye.

Contact your doctor right away if you notice any problems after surgery, such as:

• Decreasing vision.
• Signs of infection. These include increasing pain, redness, or swelling around the eye.
• Any discharge from the eye.
• Any new floaters, flashes of light, or other changes in your field of vision.
Why It Is Done

Pneumatic retinopexy is done for certain types of retinal detachments. It can be useful when:

- A single break or tear caused the detachment.
- Multiple breaks are small and close to each other.
- The break is in the upper part of the retina. You have to hold your head so that the break and the bubble are at the highest point. This is not practical if the break is on the bottom of the eyeball. You would have to keep your head upside down.

How Well It Works

This surgery can repair the retina most of the time.

You are more likely to have good vision after surgery if the macula was still attached before surgery. Good vision is less likely if the detachment affected the macula.

Risks

The most common problems after this surgery include:

- Scarring on the retina. This often causes the retina to detach again. Scarring is the most common reason that surgery fails.
- New breaks or tears forming.
- The need for more surgery to reattach the retina.
- Fluid that stays under the retina or is absorbed very slowly.
- Small gas bubbles getting trapped under the retina.

Less common problems include:

- The detachment spreading into the macula. This affects central vision.
- Higher pressure in the eye. This can lead to glaucoma.
- Cataracts.

What To Think About

For this surgery to work, the gas bubble has to press against the retina until it flattens. This means you will need to hold your head in the proper position for long periods of time. This surgery may not be an option if for any reason you are not able to stay in the right position for the time required.
There are a few ways to repair a retinal detachment. Which surgery will work best depends on the cause, location, and type of detachment. Other conditions or eye problems may also play a role in the decision.

You may need more surgery to reattach the retina if scar tissue from the first surgery grows over the surface of your retina.

Complete the surgery information form (PDF) to help you prepare for this surgery.

Credits

By Healthwise Staff
Primary Medical Reviewer  Adam Husney, MD - Family Medicine
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Current as of March 3, 2017

Note: The "printer friendly" document will not contain all the information available in the online document. Some information (e.g. cross-references to other topics, definitions or medical illustrations) is only available in the online version.

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