

## **EYE-Q**

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### **Ultraviolet Light and Pterygium Growth**

Now that we have discussed all the ways to protect your eyes from damage by the Summer sun, what can be done to correct the damage that may already be present? Of most concern to patients is the growth of a pterygium on the eye because of its unattractive appearance and chronic irritation to the eye.

Pterygium (pronounced: tur-**ridge**-e-um) is a triangular growth of vascularized scar tissue that grows from the sclera, or white part of the eye, onto the cornea, the clear window of the eye. Untreated these growths can extend across the cornea severely affecting the patient's vision. In addition, the pterygium may become very red and irritated causing significant discomfort to the patient.

Pterygia appear to be seen most commonly in people who experience chronic exposure to ultraviolet light, especially from the sun, such as farmers, fishermen and laborers who work outside and by people who spend a lot of time in dry and dusty conditions. As we get closer to the equator these growths are much more common.

In the past, patients undergoing traditional pterygium surgery have complained of pain, redness, irritation and tearing for weeks to months after surgery due to the slow healing process. A newer technique that allows for more rapid recovery with less pain and redness involves performing a transplant of conjunctiva, the clear skin on the white part of the eye, over the area where the pterygium was removed. Unfortunately, the pterygium grows back in approximately 50-60% of cases. Pterygia that come back tend to be more aggressive and difficult to treat. In addition, if the conjunctiva has been transplanted once it is very difficult to impossible to re-use it should additional surgery be needed.

A unique new procedure using an amniotic membrane graft (AMG) and tissue adhesive allows the eye to heal almost pain free with very little redness and irritation. In addition the risk of recurrence of the pterygium is usually less than 10%.

AMG is a membrane that makes up several layers of the placenta of newborn infants. The AMG that is recommended for eye surgery, is carefully processed in an FDA approved tissue bank and then further modified by a special patented process by BioTissues, Inc, sterilely packaged and frozen for use on the eye. The graft has the ability to prevent inflammation, prevent re-growth of blood vessels, reduce or eliminate scarring and aide in the natural healing of the eye.

Traditionally grafts were held in place with small sutures. The sutures must be removed after the graft has healed in but can cause irritation if they become exposed before that. Tissue adhesive, on the other hand, is a natural, two-part adhesive that acts much like the normal healing process the body uses after surgery or when you get a cut.

Because of limitations in the amount of tissue that can be safely removed in more severe cases some of the pterygium tissue may have to be left on the eye. By using a drug during surgery called mitomycin C this tissue may be suppressed or even destroyed and assist in reducing the risk of return of the pterygium.

The surgery is performed as an outpatient procedure and takes approximately 20-30 minutes to complete under a local anesthetic. The post-operative care is not unlike cataract surgery. Patients typically are back to work in a day or two and only require medicated eye drops to aide in the healing and reduce the risk of infection.

The procedure is best performed early on before the pterygium grows excessively large to reduce the risk of complications and improve the post operative appearance of the eye.

*If you have questions about your eye health e-mail Dr. Barowsky at [doctom@tdkj.com](mailto:doctom@tdkj.com) and we'll try to answer your questions here at Eye-Q.*