

MALONEY VISION INSTITUTE CLINICAL UPDATE

Pterygium Removal with Conjunctival Autograft

A pterygium is a benign growth, which generally results from chronic UV exposure, but can also result from chemical burns or radiation.

It can be cosmetically unappealing for many patients. In addition to the cosmetic nature of the pterygium, it can affect vision by inducing astigmatism by flattening the horizontal meridian. A pterygium can sometimes induce irregular astigmatism, which results in reduction of best corrected vision even if it has not encroached the visual axis.

We remove a pterygium for one or more of several reasons:

- 1) The appearance of the pterygium is cosmetically unacceptable to the patient.
- 2) The patient suffers from irritation, redness, or foreign body sensation that is not manageable with artificial tears or punctual plugs.
- 3) It induces astigmatism by flattening the corneal meridian in which it lies, causing reduced acuity.
- 4) The pterygium is encroaching on the visual axis, causing irregular astigmatism or threatening scarring.

LN is a 36 year female who came in for a consultation for a pterygium her left eye which had worsened in the past several years (Figure 1). After discussing the options with her she had elected to have excision with a conjunctival autograft. The pterygium was sharply excised from the eye. A 10mm x 10mm piece of superior bulbar conjunctiva was excised and translocated into the defect left by the pterygium excision, and sutured in place (Figure 2). Post-operatively, antibiotic and steroid eye drops were used for 4 weeks. The sutures were removed two weeks after the procedure (Figure 3).

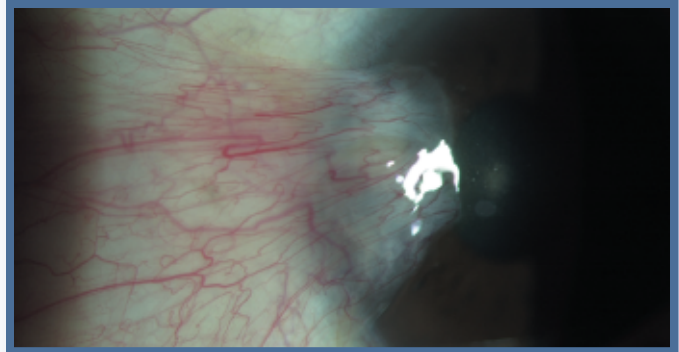


Figure 1:

LN presented with a primary pterygium. She complained of redness and irritation, as well as an unattractive appearance.

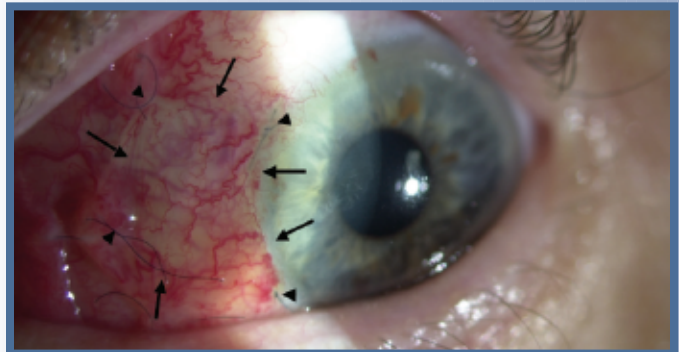


Figure 2:

Immediately after surgery, the conjunctival autograft is visible nasally (arrows), with suture securing it in place (arrowheads).

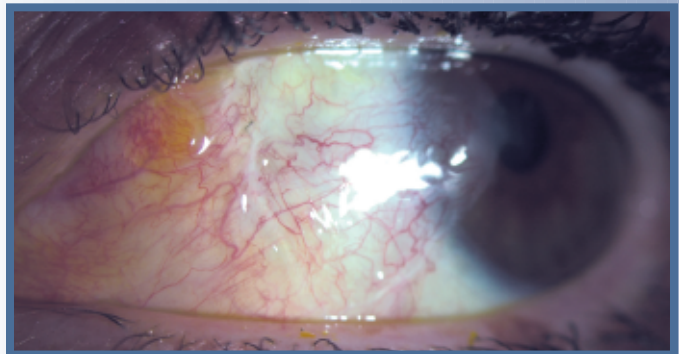


Figure 3:

Two weeks after suture removal, the conjunctival autograft is still visible, but fading.

The superior bulbar conjunctiva regrows in two to three weeks (figure 4). Conjunctival injection will gradually diminish over time after the suture removal (Figure 5).

Discussion:

Traditionally, pterygia were simply excised, leaving bare sclera. The disadvantage of simple excision is the high recurrence rate: nearly 50%. Several approaches have been tried to limit recurrence, and all work by inhibiting fibrocyte proliferation. Beta irradiation can be done at the time of excision, but it carries a slight risk of scleral melting. Mitomycin C, a chemotherapeutic agent, is an alternative to Beta irradiation, but occasionally it is too effective: a non-healing conjunctival epithelial defect can result. Pseudomonas infection can follow. We prefer conjunctival autografting. It prevents recurrence in better than 95% of cases, but does not carry the risk of scleral melting and non-healing conjunctival defects. The main disadvantage of conjunctival autografting is that it is labor intensive for the surgeon. For recurrent pterygia, conjunctival autografting can effectively prevent a second recurrence.

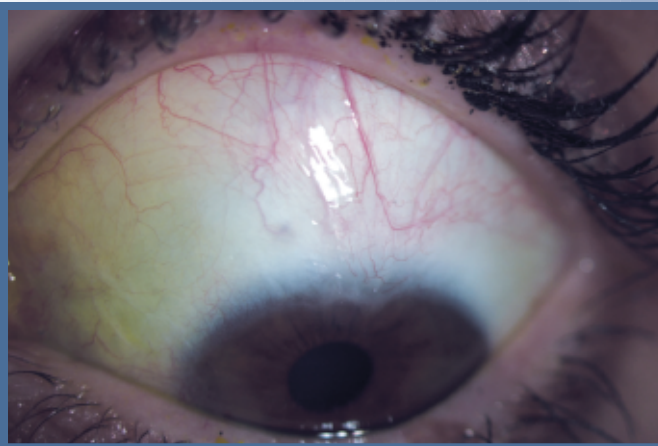


Figure 4:

The harvest site on the superior bulbar conjunctiva is well-healed two weeks after suture removal

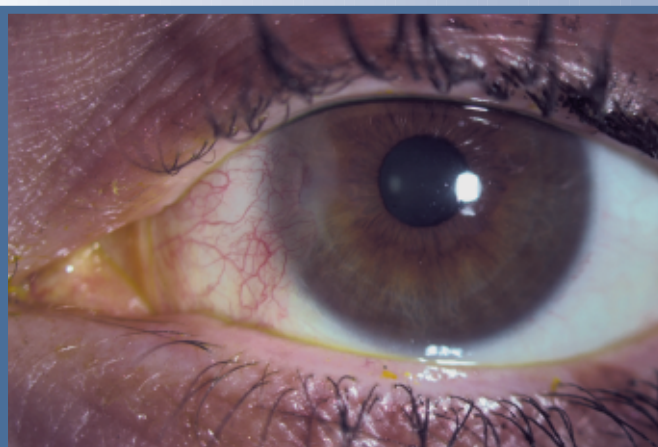


Figure 5:

Six weeks after the procedure, the eye is quiet and the graft is barely visible.

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