

## Highlights on Pterygium Surgery

**Ibrahim Ali\***

*Bekaa Hospital, Lebanon*

**\*Corresponding Author:** Ibrahim Ali, Bekaa Hospital, Lebanon.

**Received:** August 18, 2019; **Published:** September 24, 2019

### Abstract

Recurrences in Pterygium surgery remain frequent. There are some recommendations to minimize the percentage of recurrences. Minimal surgical trauma and postoperative sparing may reduce but not prevent recurrences.

**Keywords:** *Pterygium Surgery; Surgical Trauma*

Despite the numerous methods of surgical treatment of pterygium, the percentage of recurrence remains very high.

Here, I bring, my personal 32 years of experience of pterygium surgery, without statistics.

Many recommendations might be familiar to everyone, but here are some, that I hope will be useful in terms of reducing, but not preventing recurrence.

First, I want to emphasize on a commonly hidden stage, which in addition to the four stages of pterygium, is ranked as a zero stage, and called the pre-ptyerygium.

This stage is usually manifested as a sterile ulcer, that more often passes unnoticed. The only manifestation is a sensation of painless foreign body and can be identified by fluorescein staining, there is a frequent recurrence of the ulceration and one day the patient will come to you with already existing Pterygium. Of course, in most cases the patient doesn't appeal anywhere. However, it seems that during this stage, a secretion of proteolytic enzymes starts to appear, which leads to dissolving the epithelium and Bowman's membrane with neovascularization predisposing the growth of the conjunctival and subconjunctival tissues on the cornea; this process may become autoimmune, leading to limbal stem cells deficiency. At this stage, we can still prevent pterygium progression with steroid eye drops. I add, this stage, namely, needs to be well studied, in order to decipher the etiopathogenesis of pterygium.

Pterygium excision begins by instilling of two drops of Alphagan; It constricts the blood vessels and reduces the bleeding. I personally, instill Alphagan, before almost all my eye surgeries, followed by a local anesthetic, marking the incision line, subconjunctival injection of 0.3 ml of lidocaine with adrenalin, then separating in one block the pterygium head from the cornea using strong forceps or spatula.

With an ultrasound electrode, the Ellman, I cut the conjunctiva, slightly pushing back the Tennon capsule; therefore the remaining tissues of Pterygium on the cornea and a bit further, can be removed using Algebrush, simultaneously, with abundant irrigation, two sutures, 10.0 monofilament, bandage soft contact lens, for extended wear, for 2 weeks. Never use cautery, it is unnecessary and harmful. In case of additional injury, you can squeeze the bleeding vessels with cotton buds. Consequently, the Blood clots that appear, are rather a bio glue.

Important note keep in mind that what seems appealing for the surgeon, as a white bare sclera, may not be as good for the eyes. Surgery time is of great importance, therefore work neatly, but quickly.

Following up consists of using antibacterial steroid drops for 3 - 4 weeks, 4-3-2-1, once a day, then removing the stitches in one week. Soft contact lens to be used for two weeks; this provides good comfort and a calm, postoperative period. Also, it is recommended to use ice, on the eye, for 1 hour, approximately, every day, for 2 - 3 days.

Moreover, sun goggles, should be used for 1.5 months. I usually do on situ subconjunctival injection of 0.1 ml of Avastin in two weeks post-op, and sometimes another injection in one month. The only inconvenience is that there is a quick absorption of the medicine into the conjunctival tissues, which means that the application of treatment should take new forms, as applying an antiVEGF or entering it directly into the stroma, under the head of pterygium. The goal of antiVEGF injection is to minimize the neovascularization that will be encountered as an essential pathogenic factor in recurrence. I am not a supporter of MMC because it is a dangerous remedy for such a delicate, poorly vascularized sclera, especially if the dosage is incorrect.

Much is required of the patient, perhaps no less than that of the surgeon, hence, gentle care is crucial. Heat, dust, smoke, ultraviolet radiation, have a catastrophic effect on wound healing.

In case of recurrence of pterygium, it is advised to try 5 fluorouracil, as compound eye drops, which in some cases, might lead to vascular anemization and regression of the Pterygium. Otherwise, you have to resort to implantation of autologous conjunctiva with some limbal tissues, taking off the conjunctiva, in a horizontal position, and implanting it in a vertical direction.

It is better to operate Pterygium in the non-active phase, which means if there is severe hyperemia, inflammation, it is better to prescribe antibioticsteroidal eye drops for 2 - 3 weeks, then operate on a calm eye. In some cases, one or two sessions of argon laser photo-coagulation are needed, to obliterate the feed vessels, and then waiting for about two months, before pterygium excision.

It is possible to operate simultaneously, on both eyes, which has the advantage of caring for OU at the same time, but there is a big problem in case of recurrence.

### Conclusion

Despite the numerous surgical approaches for pterygium surgery, the percentage of recurrence remains high. Minimum surgical trauma and postoperative sparing care can reduce recurrence. There are lots of medical and surgical improvements to be done, in order to meet the requirements of both the patient and the surgeon.

**Volume 10 Issue 10 October 2019**

**©All rights reserved by Ibrahim Ali.**