

Letter to editor

Sutureless and glue free limbal conjunctival auto graft for primary pterygium surgery

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Dear Editor,

I enjoyed reading the article by Malik et al titled 'Efficacy of sutureless and glue-free limbal conjunctival auto-graft for primary pterygium surgery' published in the Nepalese Journal of Ophthalmology (Malik et al, 2012). The authors highlighted an important technique of primary pterygium surgery without application of sutures or bio-fibrin glue. This is, of course, a very challenging procedure, and Malik et al (2012) report only one recurrence among the forty cases (prevalence 2.5%) of primary pterygium surgery, which is an excellent result. Similarly, de Wit et al (2012) report no recurrence in the mean follow-up period of 9.2 months from their case series of pterygium surgery. However, I believe a longer follow-up period maybe warranted.

Various studies also show excellent results of low recurrence rates with sutureless pterygium surgery with bio-fibrin glue. Sutureless pterygium excision with just bio-fibrin glue results not only in less postoperative pain but also is a shorter surgical procedure (Koranyi, 2004). However, compared to just glue, sutureless and glueless should be considered a superior technique in many aspects, including surgery time, patient comfort, cost effectiveness and post-operative inflammation. Depending on the specific sutureless or glueless technique utilized, the recurrence rate of primary pterygium are reported to be anywhere from 24% to 89%.⁴ However, only further studies with a large number of cases can prove this technique of sutureless and glueless pterygium surgery to be superior to the procedure that utilizes glue.

In reviewing the study by Malik et al (2012), especially going through the inclusion criteria of surgery, one can only infer that the pterygia must have been big enough to encroach the cornea. We do not find pre-operative measurements of the size of the pterygium (except of one in the photograph) nor the details of the nature of each pterygium (progressive or regressive). Young patients frequently present with progressive pterygia in the clinics. Results with this low recurrence rate would have been more meaningful if all the pre-operative details of the cases had been provided in this study. This writer has experience of performing multiple pterygium surgeries and has found the sutureless and glueless technique to be easier since there is no significant bleeding after the pre-operative use of topical steroids, especially for cases involving inflamed pterygium.

Received date: 01.09.2012 Accepted date:10.11.2012

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In our experience, dissection of the conjunctival graft from Tenon's capsule and episcleral tissue can also be achieved easily without ballooning the conjunctiva by injecting sub-conjunctival xylocaine or saline. Sometimes, ballooning (injection of anaesthetic) itself may cause sub-conjunctival cysts (Shao et al, 2011; Vishwanath & Jain, 2005) or other complications like sub-conjunctival hemorrhages. Blunt dissection with Wescott or fine-tipped Vannas can be performed for this purpose, in which an assistant grasps the sub-conjunctival tissue lifting it up and away from the dissecting conjunctival graft. This way, a very thin graft can be achieved which minimizes the risk of graft retraction, wrinkling, or the need for repeated procedure to obtain a graft.

It is quite difficult matching the edges of the conjunctival flap with the edge of the scleral bed since the flap folds or wrinkles form easily if the edges are not apposed gently or properly. The technique of testing the graft adherence to sclera with a Merozel spear centrally and on each free edge is really important.

In conclusion, I think this technique of sutureless and glue free surgery in primary pterygium needs a large number of cases and a longer follow-up period to prove its efficacy.

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Source of support: nil. Conflict of interest: none declared