

# **Comparison of intra-operative 0.02% mitomycin C and sutureless limbal conjunctival autograft fixation in pterygium surgery: Five-year follow-up.**

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## **Abstract:**

**Purpose** To compare efficacy and safety between fibrin sealant assisted limbal conjunctival autograft fixation and intra-operative MMC in pterygium surgery. **Methods** Prospective, comparative, interventional case series. Forty eyes of 40 patients with nasal primary pterygium, 18 male and 22 female, were enrolled. The patients were assigned to two groups, and each contained nine male and 11 female based on the pterygium area encroaching onto the cornea. In one group, the conjunctival autograft was attached to the sclera with fibrin sealant, and in the other group, 0.02% MMC was applied after the pterygium was removed. All the patients were followed up postoperatively on days 1, 3, 7 and 14 then at months 1, 2, 6, 12 and 60. The main outcome measures included operating time, postoperative discomfort, cornea endothelial damage, recurrence rate and complications. **Results** The average operating time was significantly shorter ( $p = 0.044$ ) in the fibrin sealant group, and fewer postoperative symptom complaints were received as well. On postoperative month 1, no significant differences in the mean endothelial cell count, mean CV and mean 6A% were observed between these two groups. By the end of 5-year follow-up, the recurrence rate was 0% in the fibrin sealant group and 20% in the MMC group ( $p = 0.106$ ), and there were no severe visual acuity threatening complications in either group. **Conclusion** There were no severe complications after long-term follow-up if intra-operative MMC was strictly and carefully used. Overall, this sutureless method is more effective than traditional MMC.

