

# **Complications of fibrin glue in pterygium surgery with amniotic membrane transplant.**

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## **Abstract:**

**PURPOSE:** To compare the complications and the recurrence rate between fibrin glue (TISSEEL) and Vicryl 8-0 sutures in amniotic membrane transplant during pterygium surgery.

**METHODS:** Patients who underwent pterygium surgery with amniotic membrane transplant (AMT) in the Wang Eye Clinic (Doraville, USA) were randomly categorized into two groups: one group received TISSEEL and the other group received Vicryl 8-0 sutures. All procedures for both groups were performed by one ophthalmologist. Twenty-four patients (24 eyes) participated in the TISSEEL group (22 eyes with primary surgery and 2 eyes with surgery for recurrence) and 19 patients (19 eyes) took part in the suture group (18 primary eyes and 1 recurrence). The patients with recurrent pterygium in both groups had not received AMT previously. Post-operatively, patients were followed up for one week and then one year to check for any signs of complications and recurrence.

**RESULTS:** Conjunctival inflammation occurred in 3 eyes (12.5%) in the TISSEEL group, and 6 eyes (31.6%) in the suture group ( $P < 0.05$ , Chi-square test). In the TISSEEL group, 1 eye (4.2%) showed recurrence, while there were no recurrences in the sutures group. There were 3 dry eyes (15.8%) in the suture group and 2 dry eyes (8.3%) in the TISSEEL group ( $P > 0.05$ ). No dislocated conjunctival grafts, Dellen, inflammation, infection, bleeding, pyogenic granuloma, or scleromalacia was observed in either group.

CONCLUSION: Pterygium surgery with AMT had less conjunctival inflammation and dry eye in patients receiving fibrin glue than those with Vicryl 8-0 sutures.