

Comparison of fibrin glue versus suture for conjunctival autografting in pterygium surgery: A meta-analysis.

Authors: Donnenfeld E.

Publication Date: 2011

Abstract:

Purpose:To evaluate the safety and clinical efficacy of fibrin glue in pterygium surgery with conjunctival autografting. **Design:**The use of fibrin glue has been introduced in the treatment of pterygium. However, its role versus traditional suturing is still a matter of debate. We performed a meta-analysis to compare the safety and clinical efficacy of fibrin glue with suture for conjunctival autograft attachment in pterygium surgery. **Participants:**A total of 342 participants with 366 eyes in 7 studies were analyzed. **Methods:**We searched Medline, EMBASE, Web of Science, Cochrane Central Register of Controlled Trials, and Google Scholar for relevant randomized controlled trials (RCTs). **Main outcome measures:**The methodological quality of all the included trials was assessed with the Jadad score. The meta-analysis was performed with the fixed-effects model for complication rate and recurrence rate, and random-effects model for operating time. **Results:**Fibrin glue was associated with a significantly decreased operating time (weighted mean difference -17.61 minutes, 95% confidence interval [CI], -26.03 to -9.18, $P < 0.0001$) and was more effective in reducing the recurrence rate (Peto odds ratio [OR] 0.33, 95% CI, 0.15-0.71, $P = 0.004$) compared with suture. There were no significant differences in the complication rate (Peto OR 1.82, 95% CI, 0.63-5.27, $P = 0.27$) between the 2 groups. **Conclusions:**Our meta-analysis supports the superiority of fibrin glue to suture in pterygium surgery with conjunctival autografting in that the use of fibrin glue can significantly reduce the recurrence rate without increasing the risk of complications. Ophthalmologists should consider the use of fibrin glue in pterygium surgery. **Financial disclosure(s):**The author(s) have no proprietary or commercial interest in any materials discussed in

this article.