Fibrin adhesive is better than sutures in pterygium surgery.

Authors: Ratnalingam V., Keat Eu A.L., Ng G.L., Taharin R., John E.

Publication Date: 2010

Abstract:

Purpose: To evaluate the recurrence rate, surgical time, and postoperative pain between conjunctival autografting with sutures and with fibrin adhesive in pterygium surgery. Methods: A prospective, randomized, double-blind, clinical trial on the benefits of using fibrin adhesive in place of sutures in pterygium surgery. One hundred seventy-five eyes with primary pterygium were randomized to undergo pterygium surgery with conjunctival autograft transplantation using either fibrin adhesive or sutures. One hundred thirty-seven eyes of 113 patients that were operated on by a single surgeon (V.R.) completed the 1-year follow-up. Sixty-eight eyes were operated with fibrin adhesive and 69 eyes with sutures. Patients were followed up at 1 day, 1 week, 1 month, 6 months, and 1 year after surgery. Pterygium recurrence and postoperative pain was graded by an independent observer (A.L.) masked to the method of treatment. Surgical time was measured with a stopwatch. Results: All patients were followed up for 1 year. There were 3 recurrences (4.41%) in the fibrin adhesive group and 11 recurrences (15.9%) in the suture group. The mean duration required to complete surgery in the fibrin adhesive group was 16.93 +/- 2.85 minutes, whereas that of the suture group was 29.84 +/- 5.65 minutes, which was statistically significant ($P < 0.001$). The immediate postoperative pain score and week 1 postoperative pain score were significantly lower in the fibrin adhesive group ($P < 0.05$). No major complications were observed in either group. Conclusion: The use of fibrin adhesive in primary pterygium surgery with conjunctival autografts reduces the recurrence rate, surgical time, and postoperative pain when compared with sutures.