

# **Comparison of fibrin glue and sutures for conjunctival wound closure in strabismus surgery.**

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Publication Date: 2011

## **Abstract:**

To evaluate and compare the efficacy and tolerance of fibrin glue and sutures for closing conjunctival wounds in strabismus surgery. In a prospective trial, we performed strabismus surgery using limbal incisions. Conjunctival wounds were closed with fibrin glue in 20 eyes of 20 patients (fibrin group) and 8-0 polyglactin suture in 20 eyes of 20 patients (suture group). Postoperative pain, tearing, and inflammation were compared at 1 day, 1 week, 3 weeks, and 6 weeks after surgery. Conjunctival incision healing was also investigated. One day and one week post-operatively, pain and tearing scores were lower in the fibrin group ( $p = 0.000$ , respectively). Mean surgery time was significantly shorter in the fibrin ( $48 \pm 5$  minutes) than the suture group ( $63 \pm 7$  minutes) ( $p = 0.000$ ). Inflammation was significantly more severe in the suture group until 3 weeks postoperative ( $p = 0.000$ , respectively), but conjunctival healing did not differ between the groups. Hyperemia appeared more prominent in the fibrin group 3 and 6 weeks after surgery ( $p = 0.087$  and  $0.000$ , respectively). Two eyes in the fibrin group showed conjunctival gaps of more than 2 mm, which closed spontaneously by three weeks after surgery. No allergic reactions or infections developed. Fibrin glue proved to be as effective as sutures in closing conjunctival wounds. It provides more comfortable early postoperative courses and might be considered as an alternative to sutures in strabismus surgery.