Fibrin glue for closure of conjunctival incision in strabismus surgery: A report by the American academy of ophthalmology.

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Abstract:

Objective: To evaluate the severity of postoperative inflammation, degree of patient discomfort, adequacy of wound closure, and length of operating time when using fibrin glue compared with sutures to close limbal conjunctival incisions after strabismus surgery. Methods: Literature searches of the PubMed and Cochrane Library databases were last conducted on January 24, 2013, and resulted in 24 citations, including 2 not in the English language. All citations were reviewed in full text. Five studies compared fibrin glue (68 eyes) with sutures (74 eyes) for closure of limbal conjunctival incisions in patients undergoing strabismus surgery and were included in this assessment; no studies were found that evaluated fornix incisions. A quality rating was assigned to each study using criteria specifically developed for this assessment. Results: No level I studies were found, and 5 level II studies were identified. There was significantly less postoperative inflammation and patient discomfort for 1 to 3 weeks after strabismus surgery for eyes treated with fibrin glue compared with sutures. In 3 studies that evaluated wound apposition, 2 of 50 eyes (4%) with conjunctival incisions that were initially closed using fibrin glue subsequently developed a wound gap that required suture repair. In the 2 studies that compared surgical time, fibrin glue required 1 to 5 minutes less time than suturing in 1 study and 55% less time (3.8 vs. 8.4 minutes) in a second study. These 5 studies did not evaluate the cost-effectiveness or risk of viral transmission from fibrin glue. Conclusions: Studies in the literature suggest that the off-label use of fibrin glue to close limbal conjunctival incisions in strabismus surgery resulted in less postoperative inflammation and required shorter operating time compared with sutures, but it increased the percentage of wounds requiring

subsequent repair with sutures. Financial Disclosure(s): The author(s) have no proprietary or commercial interest in any materials discussed in this article.