Long-term comparison of fibrin tissue glue and vicryl suture in conjunctival autografting for pterygium surgery.

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Abstract:

Purpose: Pterygium is a common clinical entity that usually causes visual impairment, astigmatism and cosmetic problems. Although many surgical techniques to treat pterygium have been proposed, no single method, with minimal patient complications, has yet been accepted and established. Excision combined with conjunctival autograft is the most often used procedure for the treatment of primary pterygium, and the technique is associated with minimized recurrence rates in patients. The purpose of our study was to compare visual and refractive outcomes, complications, and recurrence rates with the use of fibrin glue versus 8.0 vicryl suture in pterygium surgery performed with conjunctival autograft. Materials and Methods: Our retrospective, comparative study included 106 eyes of 106 patients operated on for primary pterygium, between the years 2011 and 2012, and followed for >= 12 months. Patients were divided into 2 treatment groups: Group 1, vicryl suture use (n = 53), and Group 2, fibrin tissue glue (n = 53). Patient follow-up periods were 21.15 +/- 5.3 months for Group 1 and 22.06 +/- 5.2 months for Group 2. Results: Demographics and preoperative/follow-up clinical characteristics of patients revealed no significant differences between the 2 patient groups. Additionally, no significant differences were found between the patient groups in visual acuity level changes and refractive values. Although the rates of recurrence (7.5% in Group 1 and 1.9% in Group 2; P = 0.36) and graft dehiscence (Group 1, 7.5% compared with Group 2, 3.8%; P = 0.67) were slightly higher for patients in the suture group, differences did not reach significance. Conclusions: Our study results suggest that conjunctival autografting with fibrin glue has favorable visual and refractive results for patients, and is associated with lower complication

rates, compared with use of the traditional 8.0 vicryl suturing technique. We suggest that fibrin tissue glue provides adequate adhesion and that graft loss will not be a problem if protective shields are used in patients postoperatively. The appropriate surgery technique should be selected by considering the advantages and disadvantages of each procedure.