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"OPTIMIZATION OF AUTOPLASTY IN PRIMARY PTERYGIUMECTOMY USING BIOGLUE"

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Relevance of the study. Pterygium is an abnormal growth of the conjunctiva on the cornea that can cause significant visual impairment and aesthetic discomfort [6]. Traditional surgical treatment methods, such as pterygiumectomy with graft fixation using sutures, are accompanied by a long healing process, pain, and the risk of relapse [2, 3, 4, 5, 8, 9, 10]. The use of bioglue as an alternative to suture methods can reduce these risks, accelerate rehabilitation, and improve surgical results [1, 7, 11]. This study aims to evaluate the effectiveness of bioglue in autoplasty after pterygiumectomy.

The aim of the study isOTo evaluate the clinical efficacy of using bioglue for fixation of conjunctival graft during primary pterygiumectomy in patients with stage 2-3 pterygium.

Materials and research methods. The study involved 16 patients aged 50 to 60 years diagnosed with primary pterygium stage 2-3. Of these, 8 were men and 8 were women. All patients underwent pterygiumectomy followed by autograft grafting (Fig. 1). In the main group (8 patients), fibrin bioglue was used to fix the conjunctival graft, while in the control group (8 patients), traditional suture fixation was used.

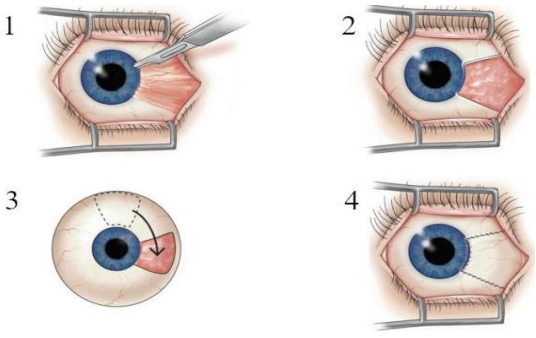

Fig. 1. Step-by-step removal of pterygium.

The operations were performed according to a standard protocol, with subsequent observation for 6 months.

After pterygium removal and conjunctival transplant preparation, the transplant in the main group was fixed with bioglue. This allowed to abandon the use of sutures, reducing inflammatory reactions and tissue trauma. In the control group, the transplant was fixed in the traditional way - by applying sutures.

Research results. Healing of the wound surface: In the main group, where bioglue was used, the process of epithelialization of the transplant was completed in 7-10 days, which was faster than in the control group, where the healing time was 10-14 days (Fig. 2, 3).

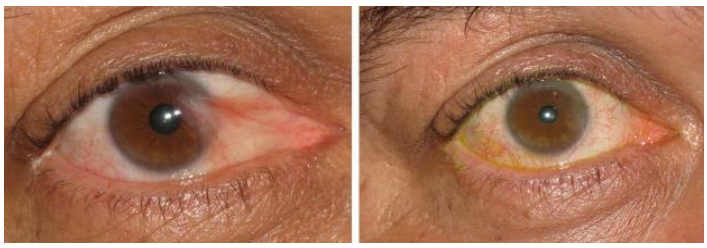

Fig. 2. Before surgery Fig. 3. After surgery.

2. Postoperative complications: In the main group, 2 patients (12.5%) experienced minor inflammation in the early postoperative period, which was quickly relieved with conservative therapy. In the control group, complications occurred in 5 patients (31.25%), including inflammation and discomfort associated with the use of sutures.

3. Recurrence rate: In the main group, recurrence of pterygium was recorded in 1 patient (6.25%), while in the control group recurrences were observed in 3 patients (18.75%).

4. Quality of life of patients: According to the survey results, patients in the main group noted less discomfort during the rehabilitation period and faster recovery compared to patients in the control group. The average level of satisfaction with the results of the operation in the main group was 94%, while in the control group it was 81%.

Conclusions:1. UsageThe use of bioglue in autoplasty after pterygiumectomy has shown high efficiency in reducing the incidence of postoperative complications and relapses.

2. Bioadhesive accelerates the healing process of the wound surface and reduces discomfort during the rehabilitation period.

3. The method of autoplasty using bioglue also allows to reduce the time of the

operation due to the refusal to apply sutures and reduces the likelihood of inflammatory reactions associated with their use. This method can be considered as a preferable option for surgical treatment of primary pterygium, especially in older patients, for whom it is important to minimize trauma and reduce recovery time.

4. Biogluemay become an alternative to traditional suture methods in pterygiumectomy, improving clinical outcomes and quality of life of patients.

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