

Original Article

Comparison of conjunctival autograft and conjunctival transposition flap techniques in primary pterygium surgery

Ayse Dolar Bilge *

Abstract

Purpose: To investigate and compare the efficacy of conjunctival autograft and conjunctival transpositional flap for the treatment of primary pterygium surgery.

Design: Retrospective, interventional case series analysis.

Materials and methods: Medical records of 48 patients who underwent pterygium surgery by conjunctival autograft or conjunctival transpositional graft for primary pterygium surgery were reviewed. The conjunctival defects after pterygium excision were repaired in 21 eyes with conjunctival autograft and in 27 eyes with conjunctival transpositional flaps. All operations were performed under subconjunctival anesthesia using 8.0 vicryl sutures. Two groups were compared in terms of pterygium size, surgery time, complications and pterygium recurrence.

Results: Mean pterygium size was 2.8 mm in conjunctival transpositional flap group, and 3.4 mm in conjunctival autograft group ($p < 0.01$). Mean surgery time in conjunctival transpositional flap and conjunctival autograft groups was 15.9 and 21.7 min, respectively. The haematoma formation under the graft was observed postoperatively in one eye of conjunctival autograft group. The only one case of recurrence was observed in both conjunctival autograft and conjunctival transpositional flap groups (3.7% and 4.7%, respectively). Mean follow up time was 11.78 months in conjunctival transpositional flap group and 14.95 months in conjunctival autografting group ($p < 0.01$).

Conclusion: Both conjunctival transpositional flap and conjunctival autograft techniques have same results in terms of pterygium recurrence and surgery complications in the treatment of primary pterygium. Surgery time in conjunctival transpositional flap technique is significantly shorter. Conjunctival transpositional flap technique may be a good alternative method for primary pterygium surgery.

Keywords: Pterygium, Conjunctival transpositional flap, Conjunctival autograft

© 2017 The Author. Production and hosting by Elsevier B.V. on behalf of Saudi Ophthalmological Society, King Saud University. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).
<https://doi.org/10.1016/j.sjopt.2017.11.002>

Introduction

Pterygium is an overgrowth of fibrovascular tissue derived from the conjunctiva, over the cornea, often with a wing-like appearance, typically inducing astigmatism and leading to the loss of vision if occludes the pupil.¹ The main indications

for the pterygium excision are chronic ocular irritation and decreased vision secondary to induced astigmatism or occlusion of the pupillary axis.^{2,3} The surgical techniques that are being used at the present are bare sclera,^{4,5} primary closure,^{6–8} amniotic membrane grafting, sliding or rotational flaps,^{11–13} conjunctival autografting,^{9,10} as well as adjuvant

Received 11 February 2017; received in revised form 5 November 2017; accepted 8 November 2017; available online xxxx.

Emsey Hospital, Ophthalmology Department, Istanbul, Turkey

* Address: Emsey Hospital, Camlik Mahallesi, Selcuklu Caddesi, No. 22, 34912 Pendik, Istanbul, Turkey.
e-mail address: drayedolar@gmail.com



Peer review under responsibility of Saudi Ophthalmological Society, King Saud University



Production and hosting by Elsevier

Access this article online:
www.saudiophthaljournal.com
www.sciencedirect.com

use in a combination with these techniques. Having similar success rates, conjunctival transpositional flap technique is not only simpler but also less time consuming when compared to conjunctival autograft technique.

In this retrospective review, we compared two techniques; conjunctival transpositional flap and conjunctival autografting as the safe methods in the treatment of primary pterygium.

Patients and methods

The medical records of 47 consecutive patients who underwent primary pterygium surgery with the conjunctival autograft and conjunctival transpositional flap technique between January 2009 and January 2011 were reviewed. Demographic characteristics of patients, pterygium size, surgery time according to anesthesia form, surgery outcome, complications and follow up time were recorded. This study was conducted in accordance with the tenets of the Declaration of Helsinki, and all patients gave informed consent. As the study is a retrospective review of the medical data, institutional review board approval was not obtained for this study.

The surgical procedure was performed under local anesthesia using lidocaine-bupivacaine mixture with monitored anesthesia care. Surgical procedures were carried out under subconjunctival anesthesia with lidocaine HCl 20 mg/ml with epinephrine 0.0125 mg/ml. The pterygium was cut near the limbus by Wescott's scissors, the head of the pterygium was detached from the surface of the cornea and subconjunctival fibrous tissue was completely removed. Any abnormal fibrous tissues were removed with no 15 blade. Minimal cauterization was applied. For conjunctival flap technique, flap was made from the inferomedial conjunctiva, near the limbus and margin of the defect. The flap thinly dissected avoiding the Tenon's capsule, transposed to the defect area and sutured separately with 8.0 polypropylene sutures (Figs. 1 and 2). In conjunctival autograft technique, the area of inferotem-

poral conjunctiva was marked and a free graft was taken to close the defect. The area was not inflated with lidocaine, in our practice we think by this method it is easier to obtain thinnest conjunctiva and dissecting conjunctiva from the Tenon's. Limbal side of the autograft was placed on limbal area of the defect. The graft was sutured with 8.0 separated polypropylene sutures.

After the surgery all the patients were prescribed dexamethasone and tobramycin eye drops 4 times a day for 4 weeks.

Results

A total of 48 eyes of 48 patients (13 female 35 male; age range 22–76 years; median age 55 years) were carried out excision of primer pterygium. The total number of eyes which underwent primary pterygium excision followed by conjunctival autografting and conjunctival transpositional graft was 21 (6 female 15 male; median age 53 years), and 27 (7 female 20 male; median age 57 years), respectively. The surgical procedure was technically successful in all cases. In a patient who underwent conjunctival autografting had hematoma formation under the graft that totally disappeared spontaneously after 2 weeks. Postoperative follow-up time ranged from 6 to 22 months (mean, 11.7 months). The conjunctival, corneal and anterior chamber changes at days 1, weeks 1 and 4 after surgery were recorded. The results at 6 weeks and 6 months were analyzed and recurrence was defined as the presence of any fibrovascular growth crossing the limbus and extending over the cornea. There was no statistically significant difference in terms of age and follow up time between the two groups ($p > 0.05$). Recurrence rates at 6 months in conjunctival autograft group and conjunctival transpositional flap group was 4.76% and 3.70%, respectively. Mean operating time in conjunctival autograft group and conjunctival transpositional flap group was 21.76 min and 15.96 min, respectively ($t = 7.344, p < .001$).

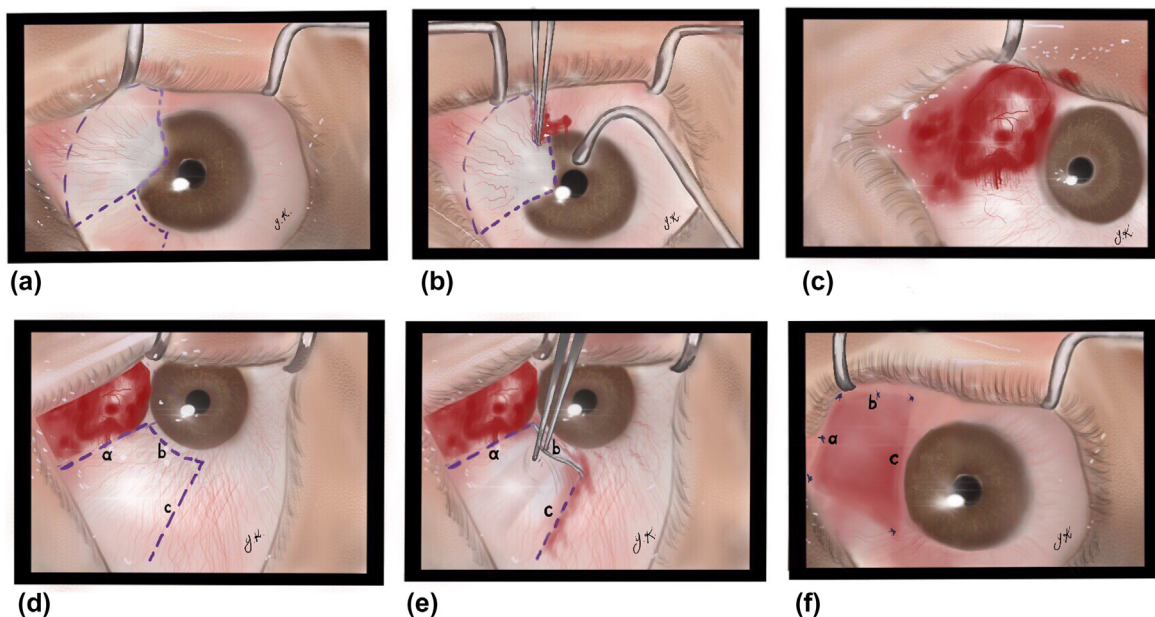


Fig. 1. Schematic steps of the primary pterygium excision and repair with conjunctival flap technique. a–c, Pterygium excision. d and e, Transpositional flap preparation. f, Transpositional flap saturation to defect area.

Download English Version:

<https://daneshyari.com/en/article/8591900>

Download Persian Version:

<https://daneshyari.com/article/8591900>

[Daneshyari.com](https://daneshyari.com)