

Keratoconusul este o patologie oculară multifactorială asimetrică a corneei, caracterizată prin protruzia progresivă și subțierea corneei, ceea ce duce la scăderea acuității vizuale. Cross-linkingul este unica metodă dovedită științific ca fiind eficientă în stoparea progresării keratoconusului, dar ea nu poate fi aplicată la o grosime a corneei mai mică ca 400 μm. Transplantul membranei Bowman a fost aplicat pe 52 de pacienți cu keratoconus avansat, având rezultate postoperatorii foarte bune și fără complicații.

Cuvinte-cheie: *transplant de strat Bowman, keratoconus, chirurgie*

Introduction. Keratoconus (KC) – a multifactorial, asymmetric corneal disorder characterized by progressive corneal protrusion and thinning, leading to increasing visual acuity. Corneal collagen cross-linking (CXL) is the only proven intervention that can halt disease progression in KC, but the corneal thickness of less than 400 μm is considered a contraindication. Penetrating keratoplasty (PK) or deep anterior lamellar keratoplasty (DALK) are treatment options for the advanced cases of KC. In advanced studies, scleral contact lenses are the safe save and effective way of visual acuity optimizing for patients.

Purpose. To study the results after 5 - year of Bowman layer transplantation (BLT) in to the stromal pocket in eyes with advanced keratoconus (KC). Center for Eye Diseases

Materials and methods. Fifty two eyes of 52 patients with average age 28 years (range 5,3) with advanced KC which are not suitable for ultraviolet cross-linking or intrastromal corneal rings, CTP (corneal thinnest point) ≤ 400 μm and Kmax (maximum keratometry) ≤ 58 D.) underwent BLT by one experienced surgeon in Helmholtz National Medical Research. Preoperative patient examination included recording the decimal best spectacle-corrected visual acuity (BSCVA) determined on the Snellen chart, best contact (scleral) lens corrected visual acuity (BCLVA), Scheimpflug based corneal tomography, slit lamp biomicroscopy, optical coherence tomography, endothelial cell density (ECD) evalu-

ation. The same examinations were performed 3, 6 and every 12 months postoperatively in all cases. All patients reached a minimum follow-up of 14 months (mean follow-up 30,7 months, range±8,9).

Results. There were no intraoperative or postoperative complications. In our cases of 52 eyes underwent BLT into a manually dissected mid-stromal pocket with an average follow-up 30,7 months, the Kmax and BCLVA were stable. The mean CTP was decreased from an average preoperative value of 398±37 to 378 ± 54,3 microns and no decrease in endothelial cell density was found. Topical treatment with antibiotics, dexamethasone and lubricants four times daily during 4 weeks. Therefore, also after BL transplantation, patients should be counseled about the possible impact of eye-rubbing, and allergies may need closer monitoring and treatment. No postoperative complications were observed in any of the other cases

Conclusion. In this study, the clinical outcome of BLT stabilizes the KC and saves host tissue as it is palliative care. Extraocular technique and absence of corneal sutures are the main advantages of BLT. There were no complications and lost lines more than 1 of BCLVA. In this group of patients, BLT could become a supplementary treatment option in the management of advanced keratoconus to postpone PK or DALK and to minimize the risk of long-term complications and save preoperative BCLVA.

Keywords: Bowman layer transplantation, keratoconus, surgery

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КОМБИНИРОВАННОЕ ЛЕЧЕНИЕ РЕЦИДИВИРУЮЩЕГО ПТЕРИГИУМА МЕТОДОМ ТРАНСПЛАНТАЦИИ БОУМАНОВОГО СЛОЯ

Оганесян О.Г., Ашикова П.М., Макаров П.В., Иванова А.В., Летникова К.Б.

ФГБУ „Национальный медицинский исследовательский центр глазных болезней имени Гельмгольца” Министерства здравоохранения Российской Федерации, Россия, 105062, Москва, ул. Садовая-Черногрязская 14/19, Россия

Summary

Bowman layer onlay transplantation in the management of recurrent pterygium

Oganesyan O.G., Ashikova P. R., Makarov P.V., Ivanova A. V, Letnikova K.B.

The Helmholtz Moscow Institute of Eye Diseases, Sadovaya-Chernogryazskaya 14/19, Moscow, Russia

The main way to treat pterygium is to excise it. However, the recurrence rate of the disease can exceed 35%. The aim of the paper is to study the possibility and evaluate the effectiveness of transplanting an isolated Bowman layer in surgery for recurrent pterygium. Bowman layer transplantation was performed in 6 eyes of 6 patients aged between 34 and 63 years. The technique was combined with resection of the pterygium, laser ablation, autoconjunctival plasty, taking a cytostatic drug, and seamless

transplantation of the Bowman layer. After 36 months the corrected visual acuity values changed from 0.32 ± 0.16 to 0.88 ± 0.12 , the topographic astigmatism from 4.1 ± 1.5 to 1.3 ± 0.8 diopters). There were no recurrences of pterygium during this period. All patients were satisfied with the cosmetic result obtained.

Keywords: pterygium, Bowman's layer transplantation, surgery

Обоснование. Пterygium – одно из наиболее частых показаний к экстраокулярной офтальмохирургии. Основным способом лечения пteryгиума - ее эксцизии, часто комбинируют трансплантационными, не трансплантационными, медикаментозными и прочими дополнительными методиками. Однако, частота рецидивов заболевания может превышать 35%, а косметический и рефракционный результат часто не удовлетворяет ни пациента ни хирурга.

Целью исследования является изучение возможности и оценка эффективности трансплантации изолированного боуменоваго слоя в хирургии рецидивирующего пteryгиума.

Материал и методы исследования. Трансплантация боуменоваго слоя в разработанной техника выполнена на 6 глазах 6 пациентов в возрасте от 34 до 63 лет. Техника операция была комбинированной, и заключалась в резекции пteryгиума, лазерной абляции, аутоконъюнктивальной пластике, воздействии цитостатического препарата, бесшовной трансплантации боуменоваго слоя. Максимальный срок наблюдения составил 36 мес. Пациентам проводилась рефрактометрия, визометрия без и

с очковой коррекцией, биомикроскопия, кератотомография и оптическая когерентная томография роговицы.

Результаты. Осложнений не отмечено ни в одном случае. Роговица и трансплантат сохраняли прозрачность в течении всего периода наблюдения. Через 36 мес. после операции средние значения корригируемой остроты зрения изменились с $0,32 \pm 0,16$ на $0,88 \pm 0,12$, топографического астигматизма с $4,1 \pm 1,5$ на $1,3 \pm 0,8$ дптр.). Рецидивов пteryгиума в период наблюдения не отмечено. Все пациенты субъективно были удовлетворены полученным косметическим результатом.

Заключение. Бесшовная трансплантация боуменоваго слоя вместо разрушенного восстанавливает нормальную анатомию, физиологию и прозрачность роговицы после повторной хирургии пteryгиума. В имеющийся период наблюдения предложенная комбинированная методика, лечения рецидивирующего пteryгиума, включающая трансплантацию боуменоваго слоя, обеспечила отсутствие рецидивов.

Ключевые слова: пterygium, трансплантация боуменоваго слоя, хирургия

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TRANSPLANTUL DE MEMBRANĂ AMNIOTICĂ ÎN MANAGEMENTUL ULCERELOR CORNEENE REFRACTARE LA TRATAMENTUL CONVENȚIONAL

Vitalie Procopciuc^{1,2}, Valeriu Cușnir¹, Viorel Nacu²

¹Catedra de Oftalmologie și Optometrie, Universitatea de Stat de Medicină și Farmacie „Nicolae Testemițanu”

²Laboratorul de Inginerie Tisulară și Culturi Celulare

Summary

Amniotic membrane transplantation in the management of corneal ulcers refractory to conventional treatment

Vitalie Procopciuc^{1,2}, Valeriu Cușnir¹, Viorel Nacu².

¹Department of Ophthalmology and Optometry, SUMPh „Nicolae Testemițanu”,

²Laboratory of Tissue Engineering and Cell Cultures

Assess the efficacy of amniotic membrane transplantation (AMT) to patients with refractory corneal ulcer and evaluate the benefits and limitations of AMT in the management of ocular surface pathology. A retrospective study was performed, which included 37 patients (37 eyes) diagnosed with corneal ulcer of various etiologies, refractory to conventional drug treatment. Satisfactory results were found in the vast majority of operated eyes. The amniotic membrane can be considered a successful alternative for the reconstruction of the ocular surface. Success rates of TMA differ depending on the etiology of the ulcer, with major efficacy in bacterial and herpetic ulcers on the one hand, and limited benefits in severe chemical burns and autoimmune pathologies on the other.

Keywords: transplant, amniotic membrane, corneal ulcer