

双头翼状胬肉治疗成功一例

靳晓涵¹, 马路生^{2*}

¹青岛大学青岛医学院, 山东 青岛

²青岛大学附属烟台毓璜顶医院眼科, 山东 烟台

收稿日期: 2025年7月1日; 录用日期: 2025年7月24日; 发布日期: 2025年8月5日

摘要

本文报道1例73岁男性患者, 患有右侧双头翼状胬肉。文中还简要回顾了近期关于翼状胬肉的病因、相关风险因素、手术类型及管理方法的文献。该患者是一名田间工人, 除了8年前因“树枝捅伤”行右眼缝合手术外, 患者没有其他眼部手术史。在局部麻醉下, 成功进行了右眼颞侧和鼻侧的翼状胬肉切除伴自体结膜瓣移植术。术后的随访中, 结膜自体移植位置稳定, 未出现感染、角膜变薄或移位等并发症。

关键词

双头胬肉, 自体结膜移植, 角膜缘干细胞

A Successful Case of Double-Headed Pterygium Treatment

Xiaohan Jin¹, Lusheng Ma^{2*}

¹Qingdao Medical College, Qingdao University, Qingdao Shandong

²Department of Ophthalmology, Yantai Yuhuangding Hospital Affiliated to Qingdao University, Yantai Shandong

Received: Jul. 1st, 2025; accepted: Jul. 24th, 2025; published: Aug. 5th, 2025

Abstract

This article reports a 73-year-old male patient with right-sided double-headed pterygium. The paper also briefly reviews recent literature on the etiology, related risk factors, surgical types, and management approaches of pterygium. The patient, a field worker, had no prior ocular surgery history except for a right eye suture operation 8 years ago due to a “tree branch injury”. Under local anesthesia, right temporal and nasal pterygium excision with autologous conjunctival flap transplantation was

*通讯作者。

文章引用: 靳晓涵, 马路生. 双头翼状胬肉治疗成功一例[J]. 临床医学进展, 2025, 15(8): 249-253.
DOI: 10.12677/acm.2025.1582228

successfully performed. During postoperative follow-up, the autologous conjunctival graft remained stable without complications such as infection, corneal thinning, or displacement.

Keywords

Double-Headed Pterygium, Autologous Conjunctival Transplantation, Limbal Stem Cells

Copyright © 2025 by author(s) and Hans Publishers Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

1. 背景

翼状胬肉(Pterygium)是局部球结膜纤维血管组织增生侵犯角膜的一种良性增生性病变,因其形状酷似昆虫的翅膀而得名,是临床上最常见的眼表疾病之一[1]。也是导致失明和视力障碍的主要原因之一[2][3]。翼状胬肉经常被描述为基底上皮细胞的增殖改变,侵入邻近的角膜上皮和血管而形成[4]。研究表明[5],紫外线辐射可能与翼状胬肉的发病机制有关,并且97%[6]的病例出现在角膜的鼻侧,与翼状胬肉发展相关的其他风险因素有遗传因素,环境因素,如风、灰尘和眼睛干燥,以及衰老和免疫等因素。一种罕见的翼状胬肉类型是双头型,指角膜缘鼻侧与颞侧同时出现纤维血管组织增生,形成“双头部”结构,这种双侧形式极为少见,占翼状胬肉病例的比例不足1%[6]。本文介绍了一例罕见的病例,涉及右眼鼻侧和颞侧同时进行双头翼状胬肉切除,其中,鼻侧行自体结膜瓣移植,颞侧将结膜切口间断缝合于角膜缘。此外,还简要回顾了近期在PubMed上发表的相关文献,这些文献不受语言和时间限制,涵盖了翼状胬肉的病因、相关风险因素、手术类型及患者管理。

2. 临床资料

患者男,73岁。因“右眼长云膜40年”于2025年6月16日于青岛大学附属烟台毓璜顶医院就诊,期间眼部偶伴眼红,经当地医院诊治,给予眼药水点眼治疗,症状无好转,云膜呈进行性生长,引起视力下降,伴眼磨、流泪。裂隙灯检查显示,右眼存在双头胬肉,拍摄患者裂隙灯照片(图1)。遂收入院拟行手术治疗。入院查体:右眼视力0.25,矫正小孔0.3,眼压18 mmHg,鼻侧结膜下筋膜组织增生肥厚,侵入鼻侧角膜约6 mm,深入瞳孔区约1 mm,颞侧结膜下筋膜组织增生肥厚,侵入颞侧角膜约4 mm,余角膜透明,前房清,深度可,瞳孔圆,直径约3 mm,对光反射灵敏,晶状体皮质不均匀灰白色混浊,视网膜平伏。在患者签署知情同意后,于2025年6月16日在局部麻醉下成功切除了右眼的双头翼状胬肉。由于鼻侧翼状胬肉较大,首先进行了切除,向翼状胬肉头部注射了2%的盐酸利多卡因和0.75%的罗哌卡因。将胬肉头部从角膜剥离,切除胬肉头部以及体部深层胬肉组织(保留体部结膜),清扫残留于角膜和巩膜表面的胬肉组织,自下方球结膜取与鼻侧去除胬肉组织大小相同的结膜瓣,移行至鼻侧裸露巩膜区并用10-0尼龙线间断缝合。颞侧结膜切口间断缝合于角膜缘。术后1月拍摄了右眼的照片(图2)。术后,患者佩戴了治疗性绷带隐形眼镜。术后4周内每天四次使用托百士、普拉洛芬、典必殊、玻璃酸钠滴眼液。建议患者避免尘土飞扬和阳光直射的环境,并佩戴太阳镜。术后第一周及2个月的随访中,患者右眼视力达到0.8,矫正+0.75DS/-1.00DC × 86° = 0.8,结膜自体移植部位保持稳定。在2个月的随访期内,未出现感染、角膜变薄、移植体移位或眼干等并发症,未出现复发性胬肉的情况,治疗性绷带隐形眼镜在第一个月结束时被移除。患者对右眼的恢复情况感到满意。

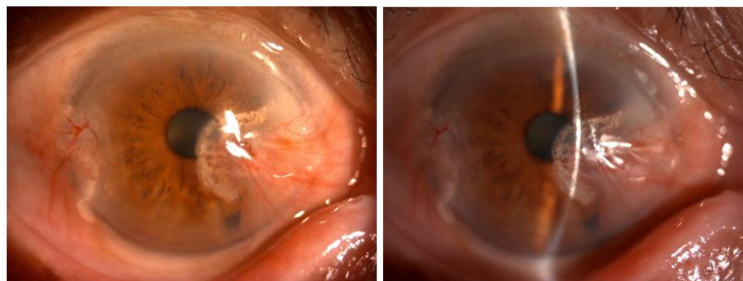


Figure 1. Right eye double-headed pterygium

图 1. 右眼双头翼状胬肉

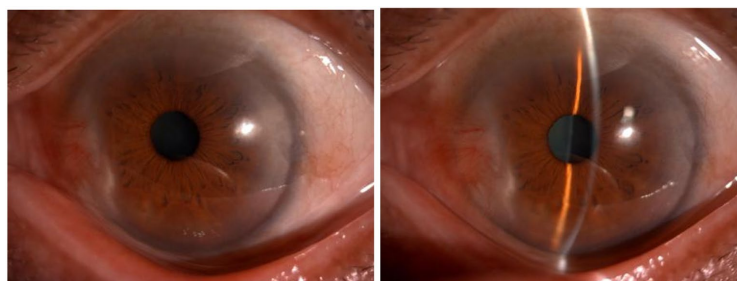


Figure 2. Anterior segment photography of the right eye on the first month after surgery

图 2. 术后 1 月右眼眼前段照相

3. 讨论

患者因罕见的双头翼状胬肉前来就诊。手术过程中,我们在局部麻醉下,采用垂直切开法,对患者右眼鼻侧和颞侧的翼状胬肉进行了切除,旨在实现良好的美容效果,并有效预防术后复发。

多项研究表明,翼状胬肉的发生与多种因素相关。**Malekifar** 等[7]的研究指出,民族因素与翼状胬肉的发病存在关联;**Chen** 等[8]的研究进一步显示,汉族人群患翼状胬肉的风险相对较高。此外,大量研究[9]-[21]一致表明,年龄增长、男性性别、长期紫外线照射、户外工作以及吸烟等,均是翼状胬肉的主要危险因素,甚至有研究[22]将其归类为与职业相关的疾病。具体到本例患者,作为居住于沿海阳光直射地区的男性田间工作者,其生活环境与职业特性均符合上述高危因素。不过,**Akinsola** 等[23]的研究却得出相悖结论,认为户外职业并非翼状胬肉的风险因素。同时,根据 **Malekifar** 等[7]的研究,翼状胬肉及睑缘炎家族史也被列为风险因素,而该患者并无相关阳性家族史。此外,**Roka** 等[24]曾提出干眼症与翼状胬肉存在密切联系,但这一情况在本病例中并未出现。

针对双头翼状胬肉的治疗,外科医生通常可选择同时手术或分阶段手术[6],且目前已有多种手术技术应用于临床[25]。理想的手术方案需兼顾低复发率、轻微并发症及良好的美容效果。自体结膜移植技术凭借 5% 的低复发率[26],多年来一直是眼科医生的首选,本病例亦采用该技术进行治疗。另有研究显示,缝合的角膜缘自体移植术复发率在 0%~14.29% 之间[27];将游离的自体结膜分成两部分,通过缝线固定于角膜两侧以替代切除的翼状胬肉,也是治疗双头翼状胬肉的有效方式[6]。**Yeung** 等[28]采用顺序翼状胬肉切除联合自体结膜瓣移植术治疗双头翼状胬肉,并证实数月后在同一部位再次实施该手术,并不会增加复发风险,充分验证了该术式的安全性与有效性。**Aidenloo** 等[29]指出,年轻患者、复发性翼状胬肉以及较大的胬肉组织,均是术后复发的高危因素。鉴于本患者右眼鼻侧翼状胬肉体积较大,建议尽早手术切除,以降低复发风险。**Lee** 等[30]的研究表明,翼状胬肉切除术联合大块结膜自体移植,在治疗复发性翼状胬肉时,可实现良好的美容效果,同时显著降低复发率并减少并发症。此外,在原发性翼状胬肉手

术中, 使用 5-氟尿嘧啶或丝裂霉素 C 进行抗纤维增生治疗, 可起到辅助作用[31] [32]; 文献中也有多层羊膜移植治疗翼状胬肉的报道[33], 但考虑到本患者翼状胬肉程度较轻, 未选择该方法。

综上所述, 垂直切开联合自体结膜移植术是治疗双头翼状胬肉安全、有效且能预防复发的手术方式。年龄、阳光照射与男性性别是本例患者发病的主要危险因素。术后规范用药及采取防护措施至关重要, 建议患者日常佩戴太阳镜, 减少紫外线暴露, 从而降低翼状胬肉的复发风险。

声 明

该病例报道已获得病人的知情同意。

参考文献

- [1] Zaidi, S.B.H. and Ali Khan, W. (2021) Is Pterygium Morphology Related to Loss of Corneal Endothelial Cells? A Cross-Sectional Study. *Clinical Ophthalmology*, **15**, 1259-1266. <https://doi.org/10.2147/oph.s296531>
- [2] Otulana, T. (2012) Blindness and Visual Impairment in Remo, Ogun State, Nigeria: A Hospital-Based Study. *Nigerian Postgraduate Medical Journal*, **19**, 153-156.
- [3] Xu, L., Jonas, J.B., Cui, T.T., You, Q.S., Wang, Y.X., Yang, H., *et al.* (2012) Beijing Eye Public Health Care Project. *Ophthalmology*, **119**, 1167-1174.
- [4] Zhao, D., Zhao, H., He, Y., Yang, Y., Du, Y. and Zhang, M. (2021) The Inhibitive Effects of Proteasome Inhibitor MG-132 on Pterygium Fibroblasts in Vitro and the Potential Key Regulators Involved. *Life Sciences*, **270**, Article ID: 119088. <https://doi.org/10.1016/j.lfs.2021.119088>
- [5] Shahraki, T., Arabi, A. and Feizi, S. (2021) Pterygium: An Update on Pathophysiology, Clinical Features, and Management. *Therapeutic Advances in Ophthalmology*, **13**, 1-21. <https://doi.org/10.1177/25158414211020152>
- [6] Elhamaky, T.R. and Elbarky, A.M. (2018) Outcomes of Vertical Split Conjunctival Autograft Using Fibrin Glue in Treatment of Primary Double-Headed Pterygia. *Journal of Ophthalmology*, **2018**, Article ID: 9341846. <https://doi.org/10.1155/2018/9341846>
- [7] Malekifar, P., Esfandiari, H., Behnaz, N., Javadi, F., Azish, S., Javadi, M.A., *et al.* (2017) Risk Factors for Pterygium in Ilam Province, Iran. *Journal of Ophthalmic and Vision Research*, **12**, 270-274.
- [8] Chen, T., Ding, L., Shan, G., Ke, L., Ma, J. and Zhong, Y. (2015) Prevalence and Racial Differences in Pterygium: A Cross-Sectional Study in Han and Uygur Adults in Xinjiang, China. *Investigative Ophthalmology & Visual Science*, **56**, 1109-1117. <https://doi.org/10.1167/iovs.14-15994>
- [9] Li, Z., Wu, S., Mai, J., Xu, K., Sun, Y., Song, Z., *et al.* (2014) Prevalence of and Risk Factors for Pterygia in a Rural Northern Chinese Population. *Ophthalmic Epidemiology*, **21**, 378-383. <https://doi.org/10.3109/09286586.2014.967359>
- [10] Jiao, W., Zhou, C., Wang, T., Yang, S., Bi, H., Liu, L., *et al.* (2014) Prevalence and Risk Factors for Pterygium in Rural Older Adults in Shandong Province of China: A Cross-Sectional Study. *BioMed Research International*, **2014**, Article ID: 658648. <https://doi.org/10.1155/2014/658648>
- [11] Nangia, V., Jonas, J.B., Nair, D., Saini, N., Nangia, P. and Panda-Jonas, S. (2013) Prevalence and Associated Factors for Pterygium in Rural Agrarian Central India. The Central India Eye and Medical Study. *PLOS ONE*, **8**, e82439. <https://doi.org/10.1371/journal.pone.0082439>
- [12] Liu, L., Wu, J., Geng, J., Yuan, Z. and Huang, D. (2013) Geographical Prevalence and Risk Factors for Pterygium: A Systematic Review and Meta-analysis. *BMJ Open*, **3**, e003787. <https://doi.org/10.1136/bmjopen-2013-003787>
- [13] Altinkaynak, H., Demircan, A., Kocasarac, C., Kara, N., Dundar, H., Altan, Ç., *et al.* (2014) Effect of Orbital Protrusion and Vertical Interpalpebral Distance on Pterygium Formation. *Contact Lens and Anterior Eye*, **37**, 153-156. <https://doi.org/10.1016/j.clae.2013.09.010>
- [14] Rezvan, F., Hashemi, H., Emamian, M.H., Kheirikhah, A., Shariati, M., Khabazkhoob, M., *et al.* (2012) The Prevalence and Determinants of Pterygium and Pinguecula in an Urban Population in Shahroud, Iran. *Acta Medica Iranica*, **50**, 689-696.
- [15] Li, Z. and Cui, H. (2013) Prevalence and Associated Factors for Pterygium in a Rural Adult Population (the Southern Harbin Eye Study). *Cornea*, **32**, 806-809. <https://doi.org/10.1097/ico.0b013e31826dff30>
- [16] Cajucum-Uy, H., Tong, L., Wong, T.Y., Tay, W.T. and Saw, S.M. (2009) The Prevalence of and Risk Factors for Pterygium in an Urban Malay Population: The Singapore Malay Eye Study (SiMES). *British Journal of Ophthalmology*, **94**, 977-981. <https://doi.org/10.1136/bjo.2008.150847>
- [17] Durkin, S.R., Abhary, S., Newland, H.S., Selva, D., Aung, T. and Casson, R.J. (2007) The Prevalence, Severity and Risk Factors

- for Pterygium in Central Myanmar: The Meiktila Eye Study. *British Journal of Ophthalmology*, **92**, 25-29. <https://doi.org/10.1136/bjo.2007.119842>
- [18] Lu, J., Wang, Z., Lu, P., Chen, X., Zhang, W., Shi, K., *et al.* (2007) Pterygium in an Aged Mongolian Population: A Population-Based Study in China. *Eye*, **23**, 421-427. <https://doi.org/10.1038/sj.eye.6703005>
 - [19] Tan, C.S.H., Lim, T.H., Koh, W.P., Liew, G.C., Hoh, S.T., Tan, C.C., *et al.* (2005) Epidemiology of Pterygium on a Tropical Island in the Riau Archipelago. *Eye*, **20**, 908-912. <https://doi.org/10.1038/sj.eye.6702046>
 - [20] Gazzard, G., Saw, S.M., Farook, M., Koh, D., Widjaja, D., Chia, S.E., *et al.* (2002) Pterygium in Indonesia: Prevalence, Severity and Risk Factors. *British Journal of Ophthalmology*, **86**, 1341-1346. <https://doi.org/10.1136/bjo.86.12.1341>
 - [21] Wong, T.Y., Foster, P.J., Johnson, G.J., Seah, S.K.L. and Tan, D.T.H. (2001) The Prevalence and Risk Factors for Pterygium in an Adult Chinese Population in Singapore: The Tanjong Pagar Survey. *American Journal of Ophthalmology*, **131**, 176-183. [https://doi.org/10.1016/s0002-9394\(00\)00703-0](https://doi.org/10.1016/s0002-9394(00)00703-0)
 - [22] Maharshak, I. and Avisar, R. (2009) Bilateral Primary Pterygia: An Occupational Disease? *Archives of Environmental & Occupational Health*, **64**, 137-140. <https://doi.org/10.3200/acoh.64.2.137-140>
 - [23] Akinsola, F.B., Mbadugha, C.A., Onakoya, A.O., Adefule-Ositelu, A.O., Aribaba, O.T. and Rotimi-Samuel, A. (2012) Pattern of Conjunctival Masses Seen at Guinness Eye Centre Luth Idi-Araba. *Nigerian Quarterly Journal of Hospital Medicine*, **22**, 39-43.
 - [24] Roka, N. and Shrestha, S.P. (2013) Assessment of Tear Secretion and Tear Film Instability in Cases with Pterygium and Normal Subjects. *Nepalese Journal of Ophthalmology*, **5**, 16-23. <https://doi.org/10.3126/nepjoph.v5i1.7816>
 - [25] Duman, F. and Köşker, M. (2015) Demographics of Patients with Double-Headed Pterygium and Surgical Outcomes. *Türk Oftalmoloji Dergisi*, **45**, 249-253. <https://doi.org/10.4274/tjo.56514>
 - [26] Jee, D., Park, M., Lee, H.J., Kim, M.S. and Kim, E.C. (2015) Comparison of Treatment with Preservative-Free versus Preserved Sodium Hyaluronate 0.1% and Fluorometholone 0.1% Eyedrops after Cataract Surgery in Patients with Preexisting Dry-Eye Syndrome. *Journal of Cataract and Refractive Surgery*, **41**, 756-763. <https://doi.org/10.1016/j.jcrs.2014.11.034>
 - [27] Wolter-Roessler, E., Seitz, B. and Naumann, G.O.H. (2002) Pterygoide Hornhautdystrophie. *Klinische Monatsblätter für Augenheilkunde*, **219**, 677-681. <https://doi.org/10.1055/s-2002-35166>
 - [28] Yeung, S.N., Rubenstein, D., Price, A.J., Elbaz, U., Zhang, A.Q., Côté, E., *et al.* (2013) Sequential Pterygium Excision with Conjunctival Autograft in the Management of Primary Double-Headed Pterygia. *Canadian Journal of Ophthalmology*, **48**, 521-523. <https://doi.org/10.1016/j.cjco.2013.05.014>
 - [29] Aidenloo, N.S., Motarjemizadeh, Q. and Heidarpanah, M. (2018) Risk Factors for Pterygium Recurrence after Limbal-Conjunctival Autografting: A Retrospective, Single-Centre Investigation. *Japanese Journal of Ophthalmology*, **62**, 349-356. <https://doi.org/10.1007/s10384-018-0582-9>
 - [30] Lee, J.S., Ha, S.W., Yu, S., Lee, G.J. and Park, Y.J. (2017) Efficacy and Safety of a Large Conjunctival Autograft for Recurrent Pterygium. *Korean Journal of Ophthalmology*, **31**, 469-478. <https://doi.org/10.3341/kjo.2016.0135>
 - [31] Salustiano Correa e Silva, R., de Pereira Avila, M., Ricardo Rassi, A., Ximenes, L., Salustiano da Silva, D. and Coutinho de Paula, A. (2013) Intra-Operative Use of 5-Fluorouracil in Pterygium Surgery: A Comparative Study. *Seminars in Ophthalmology*, **28**, 34-36. <https://doi.org/10.3109/08820538.2012.730101>
 - [32] Kareem, A.A., Farhood, Q.K. and Alhammami, H.A. (2012) The Use of Antimetabolites as Adjunctive Therapy in the Surgical Treatment of Pterygium. *Clinical Ophthalmology*, **6**, 1849-1854. <https://doi.org/10.2147/opth.s38388>
 - [33] Kobayashi, A., Shirao, Y., Segawa, Y., Higashide, T., Miwa, S., Kawasaki, K., *et al.* (2001) Multi-Layer Amniotic Membrane Graft for Pterygium in a Patient with Xeroderma Pigmentosum. *Japanese Journal of Ophthalmology*, **45**, 496-498. [https://doi.org/10.1016/s0021-5155\(01\)00404-x](https://doi.org/10.1016/s0021-5155(01)00404-x)