

Clinical Observation of Vernal Keratoconjunctivitis and Corneal Complications

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Abstract

Objective: To investigate the corneal complications associated with vernal keratoconjunctivitis, and the degree of damage to vision in these complications. **Methods:** The soldiers of the outpatient department of our hospital from 2014 to 2016 were selected for the diagnosis of 180 eyes of 90 people in the vernal keratoconjunctivitis. The diagnosis of the vernal keratoconjunctivitis is based on the patient's history and eye examination. The Snellen's visual chart records vision. Visual impairment is classified according to the world health organization's criteria for visual impairment. **Results:** The mean age of the patients was 19.75 ± 6.03 . All the patients in the group were male (100%). There were 38 eyes with corneal scar (21.1%), 11 eyes with conical cornea (6.1%), 4 eyes (2.2%) with corneal shield ulcer, and 2 eyes (1.1%) with corneal neovascularization. **Conclusion:** Corneal complications can result in severe consequences, even loss of vision.

Keywords

Vernal Keratoconjunctivitis, Corneal Complications, Visual Impairment

春季卡他性结膜炎和角膜并发症的临床观察

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摘要

目的: 探讨与春季卡他性结膜炎有关的角膜并发症, 以及这些并发症对视力的损伤程度。方法: 选取2014年至2016年度在我院门诊就诊的部队官兵, 诊断为春季卡他性结膜炎共90人180只眼。春季卡他性结膜炎诊断依据是患者病史及眼部检查。Snellen's视力表记录视力。视力损伤分类依据世界卫生组织关于视力损伤的标准进行分类。结果: 入组患者平均年龄 19.75 ± 6.03 。入组患者均为男性(100%)。伴有角膜瘢痕的38只眼(21.1%), 伴有圆锥角膜的11只眼(6.1%), 伴有角膜盾形溃疡的4只眼(2.2%), 2只眼(1.1%)有角膜新生血管长入。结论: 春季卡他性结膜炎出现角膜并发症是可导致严重后果, 甚至视力丧失。

关键词

春季卡他性结膜炎, 角膜并发症, 视力损伤

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1. 引言

春季卡他性结膜炎(Vernal keratoconjunctivitis, VKC)常见于温暖季节[1] [2], 热带地区多见, 其发病率约为23% [1] [3]。在北京春季卡他性结膜炎也并不少见。VKC是一种主要由Th2淋巴细胞介导的I型和IV型眼表的慢性过敏性炎症[1] [4] [5], 多为双眼不同程度受累, 年轻男性多见[6], 文献报道VKC亦可见于10岁以下儿童[7]。

春季卡他性结膜炎常表现为眼睛奇痒, 结膜充血, 畏光, 流泪, 有些患者可有不同程度视力障碍[1]。VKC患者上睑结膜可见约10~20个巨乳头[4] [8] [9] [10], 当巨乳头出现在睑缘附近时, 可因机械摩擦出现铺路石样改变。VKC侵及角膜时, 将会导致一系列角膜并发症, 比如圆锥角膜、角膜盾形溃疡、角膜新生血管长入, 以及形成可以影响视力的伪膜[7] [11] [12] [13]。VKC患者皮肤检测和/或血清IgE检测为阴性, 因此诊断通常依据临床表现和体征[14]。

春季卡他性结膜炎(VKC)的治疗措施分别是预防避免接触过敏原、局部用药以及外科治疗。一线治疗方案是避免接触过敏原[15] [16] [17], 局部用药通常选择如抗组胺药物、肥大细胞稳定剂、以及多功能药物(如奥洛他定、阿卡他定)等作为首选用药配合治疗[18]。通常严重、反复的VKC选用外科治疗[18]。

尽管春季卡他性结膜炎为自限性疾病, 但是当出现角膜并发症时, 影响视力, 从而对患者生活质量。本文重点探讨与春季卡他性结膜炎有关的角膜并发症, 以及这些并发症对视力的损伤程度, 研究降低视力损伤的措施[19] [20]。

2. 材料和方法

选取2014年至2016年度在我院门诊就诊的部队官兵, 诊断为春季卡他性结膜炎共90人180只眼。春季卡他性结膜炎诊断依据是患者病史(眼睛奇痒, 结膜充血, 畏光, 流泪, 有些有视力障碍)及眼部检查(巨乳头、睑缘增厚和结膜色素沉着)。记录入组患者的年龄、性别、症状、体征。Snellen's视力表检查视力。视力损伤分类依据世界卫生组织关于视力损伤的标准进行分类。每名入组患者均接受裂隙灯显微镜

检查,并记录相应体征。非接触眼压计测眼压。角膜地形图检查圆锥角膜。入组标准:入组患者有明确VKC病史,经裂隙灯显微镜检查眼部表现有睑结膜乳头肥大、睑缘增厚及色素沉着,并伴有角膜并发症。排除标准:其他类型的过敏性结膜炎,角膜接触镜引起的过敏性结膜炎,白内障,激素性青光眼等。所有数据经SPSS16.0分析统计。均数标准差计算年龄等变量数据。分类变量数据如角膜并发症及视力损伤情况等由频率和百分比计算。

3. 结果

入组患者共90人180只眼,平均年龄 19.75 ± 6.03 。最年轻的17岁,年纪最大的27岁。入组患者均为男性(100%)。伴有角膜瘢痕的38只眼(21.1%),伴有圆锥角膜的11只眼(6.1%),伴有角膜盾形溃疡的4只眼(2.2%),2只眼(1.1%)有角膜新生血管长入。视力损伤分类依据世界卫生组织关于视力损伤的标准进行分类。27只眼轻度视力受损,20只眼中度视力损伤,8只眼重度视力损伤。对比春季卡他性结膜炎角膜并发症和视力损伤程度时,发现大多数视力受损的患者多数有角膜瘢痕,而出现圆锥角膜的患者会伴有严重的视力损伤。

4. 讨论

本文入组患者90名共180只眼诊断春季卡他性结膜炎,平均年龄 19.75 ± 6.03 。VKC通常3岁起病[7],95%患者在青春期前后症状和体征多可缓解,5%患者症状持续到青春期后[21],有些患者甚至因出现角膜并发症而影响视力[4]。VKC常见于男孩。本文入组患者均为部队男性。VKC发病有季节性,儿童倾向于在早春或夏末出现症状[1][2]。本文患者发病高峰季节在5~6月。Saboo等也发现5月发病率较高[22]。

VKC患者有时并发角膜并发症,如角膜瘢痕,圆锥角膜,角膜盾形溃疡,甚至角膜新生血管。尽管这些并发症并不多见,但是如果出现的话会导致视力不同程度受损,影响患者的生活质量。本文伴有角膜瘢痕占21.1%,伴有圆锥角膜占6.1%,伴有角膜盾形溃疡占2.2%,有角膜新生血管长入的占1.1%。Saboo等发现角膜瘢痕占11%,伴有圆锥角膜占6.2%,伴有角膜盾形溃疡占3%,有角膜新生血管长入的占7.26% [22]。

依据WHO视力损伤分类标准对视力损伤进行分类。本文27只眼轻度视力受损,20只眼中度视力损伤,8只眼重度视力损伤。其中,出现角膜瘢痕并发症的患者中,轻度视力受23(60.5%)只眼,中度视力受损10(26.3%)只眼,重度视力受损5(13.2%)只眼。并发圆锥角膜患者中,轻度视力受损2(18.2%)只眼,中度视力受损7(63.6%)只眼,重度视力受损2(18.2%)只眼。本文表1中记录角膜瘢痕38(21.1%)只眼,圆锥角膜11(6.1%)只眼以及角膜盾形溃疡4(2.2%)只眼,将并发症同视力受损程度相关联后发现,角膜盾形溃疡引起重度视力受损的比例最高。Bonini发现6%患者因角膜瘢痕导致视力丧失[11]。春季卡他性

Table 1. Frequency distribution of corneal complications with visual impairment

表 1. 角膜并发症发生率和视力损伤对比表

角膜并发症	发生率		视力损伤		
	有	无	轻度	中度	重度
角膜瘢痕	38 (21.1%)	142 (64.5%)	23 (60.5%)	10 (26.3%)	5 (13.2%)
圆锥角膜	11 (6.1%)	169 (93.9%)	2 (18.2%)	7 (63.6%)	2 (18.2%)
盾形溃疡	4 (2.2%)	176 (97.8%)	1 (25.0%)	2 (50.0%)	1 (25.0%)
角膜新生血管	2 (1.1%)	178 (98.9%)	1 (50.0%)	1 (50.0%)	0 (0.00%)

结膜炎作为过敏性结膜炎的一种，其最大的危害是多种角膜并发症所引起的不同程度的视力损伤，严重影响患者生活质量，故应引起高度重视，早发现，早治疗，降低并发症的发病率。

参考文献 (References)

- [1] Kumar, S. (2009) Vernal Keratoconjunctivitis: A Major Review. *Acta Ophthalmol*, **87**, 133-147. <https://doi.org/10.1111/j.1755-3768.2008.01347.x>
- [2] Jun, J., Bielory, L. and Raizman, M.B. (2008) Vernal Conjunctivitis. *Immunology and Allergy Clinics of North America*, **28**, 59-82. <https://doi.org/10.1016/j.iac.2007.12.007>
- [3] Bonini, S., Lambiase, A., Marchi, S., et al. (2000) Vernal Keratoconjunctivitis Revisited: A Case Series of 195 Patients with Long Term Followup. *Ophthalmology*, **107**, 1157-1163. [https://doi.org/10.1016/S0161-6420\(00\)00092-0](https://doi.org/10.1016/S0161-6420(00)00092-0)
- [4] Buckley, R.J. (1988) Vernal Keratoconjunctivitis. *International Ophthalmology Clinics*, **28**, 303-308. <https://doi.org/10.1097/00004397-198802840-00009>
- [5] La Rosa, M., Lionetti, E., Reibaldi, M., et al. (2013) Allergic Conjunctivitis: A Comprehensive Review of Literature. *Italian Journal of Pediatrics*, **39**, 18. <https://doi.org/10.1186/1824-7288-39-18>
- [6] Ostler, H.B. (1993) Vernal Conjunctivitis. In *Diseases of the External Eye and Adnexae: A Text and Atlas*. Williams & Wilkins, Baltimore, 125.
- [7] Stensballe, L.G., Klansø, L., Jensen, A., et al. (2017) The Validity of Register Data to Identify Children with Atopic Dermatitis, Asthma or Allergic Rhinoconjunctivitis. *Pediatric Allergy & Immunology Official Publication of the European Society of Pediatric Allergy & Immunology*.
- [8] Bielory, L. and Frohman L. (1992) Allergic and Immunologic Disorders of the Eye. *Journal of Allergy and Clinical Immunology*, **86**, 1-20. [https://doi.org/10.1016/S0091-6749\(05\)80033-8](https://doi.org/10.1016/S0091-6749(05)80033-8)
- [9] Leonardi, A., Doan, S., Fauquert, J.L., et al. (2017) Diagnostic Tools in Ocular Allergy. *Allergy*.
- [10] Kumagai, N., Fukuda, K., Fujitsu, Y., et al. (2006) Role of Structural Cells of the Cornea and Conjunctiva in the Pathogenesis of Vernal Keratoconjunctivitis. *Progress in Retinal and Eye Research*, **25**, 165-187. <https://doi.org/10.1016/j.preteyeres.2005.09.002>
- [11] Bonini, S., Coassin, M., Aronni, S., et al. (2004) Vernal Keratoconjunctivitis. *Eye(Lond)*, **18**, 345-351. <https://doi.org/10.1038/sj.eye.6700675>
- [12] De Smedt, S., Wildner, G. and Kestelyn, P. (2013) Vernal Keratoconjunctivitis: An Update. *British Journal of Ophthalmology*, **97**, 9-14. <https://doi.org/10.1136/bjophthalmol-2011-301376>
- [13] Cameron, J.A., Al-Rajhi, A.A. and Badr, I.A. (1989) Corneal Ectasia in Vernal Keratoconjunctivitis. *Ophthalmology*, **96**, 1615-1623. [https://doi.org/10.1016/S0161-6420\(89\)32677-7](https://doi.org/10.1016/S0161-6420(89)32677-7)
- [14] Pattnaik, L. and Acharya, L. (2015) A Comprehensive Review on Vernal Keratoconjunctivitis with Emphasis on Proteomics. *Life Science*, **128**, 47-54. <https://doi.org/10.1016/j.lfs.2015.01.040>
- [15] Leonardi, A. (2013) Management of Vernal Keratoconjunctivitis. *Ophthalmology and Therapy*, **2**, 73-88. <https://doi.org/10.1007/s40123-013-0019-y>
- [16] Oray, M. and Toker, E. (2013) Tear Cytokine Levels in Vernal Keratoconjunctivitis: The Effect of Topical 0.05% Cyclosporine a Therapy. *Cornea*, **32**, 1149-1154.
- [17] Vichyanond, P. and Kosrirukvongs, P. (2013) Use of Cyclosporine A and Tacrolimus in Treatment of Vernal Keratoconjunctivitis. *Current Allergy and Asthma Reports*, **13**, 308-314. <https://doi.org/10.1007/s11882-013-0345-0>
- [18] Vichyanond, P., Pacharn, P., Pleyer, U., et al. (2014) Vernal Keratoconjunctivitis: A Severe Allergic Eye Disease with Remodeling Changes. *Pediatric Allergy and Immunology*, **25**, 314-322. <https://doi.org/10.1111/pai.12197>
- [19] Sacchetti, M., Baiardini, I., Lambiase, A., et al. (2007) Development and Testing of the Quality of Life in Children with Vernal Keratoconjunctivitis Questionnaire. *American Journal of Ophthalmology*, **144**, 557-563.
- [20] Mario, L.R., Elena, L., Michele, R., et al. (2013) Allergic Conjunctivitis: A Comprehensive Review of the Literature. *Italian Journal of Pediatrics*, **39**, 18. <https://doi.org/10.1186/1824-7288-39-18>
- [21] Arif, A.S., Aaqil, B., Siddiqui, A., et al. (2017) Corneal Complications and Visual Impairment in Vernal Keratoconjunctivitis Patients. *Journal of Ayub Medical College Abbottabad*, **29**, 58-60.
- [22] Saboo, U.S., Jain, M. and Reddy, J.C. (2013) Demographic and Clinical Profile of Vernal Keratoconjunctivitis at a Tertiary Eye Care Centre in India. *Indian Journal of Ophthalmology*, **61**, 486-489.

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