Prevalence of other allergies among patients with vernal keratoconjunctivitis

Ali Rezaei Shokooh¹, Reza Zarei-Abianeh²

¹Islamic Azad University-Tehran Medical Sciences Branch, Amiralmomenin Hospital, Shirmohammadi Ave., Naziabad, Tehran, Iran
²Department of Ophthalmology, Medical Sciences Faculty, Tehran university, Tehran, Iran

Correspondence to: Ali Rezaei Shokooh. Islamic Azad University Tehran Medical Sciences Branch, Amiralmomenin Hospital, Shirmohammadi Ave., Naziabad, Tehran, Iran. shokooh@yahoo.com
Received: 2010-02-20 Accepted: 2010-03-30

Abstract
• AIM: To determine the prevalence of other allergies in patients with vernal keratoconjunctivitis (VKC) and their first-degree relatives.
• METHODS: This prospective study was done on 520 patients with VKC over a 9-year period from April 1999 to March 2008. All information such as age, sex, types of vernal and various types of other accompanying hypersensitivities in patients and/or their relatives were recorded on questionnaires and analyzed statistically.
• RESULTS: Among 520 patients, 369 (71.0%) were male and 151 (29.0%) were female. The mean age of patients was 15.3 years (6-30 years). 242 cases (46.5%) had history of vernal or other types of hypersensitivities in themselves or their first-degree relatives. Among these positive history cases, 68 patients (28.1%) had allergic dermatitis, 51 cases (21.1%) vernal conjunctivitis (in their relatives), 46 cases (19.0%) asthma, 29 cases (12.0%) allergic sinusitis, 24 cases (10.0%) drugs hypersensitivity, 14 cases (5.8%) atopic dermatitis, 6 cases (2.5%) allergic rhinitis and 4 cases (1.6%) had hay fever history.
• CONCLUSION: Many patients with VKC have other IgE-mediated or other types of hypersensitivity in him/her self and/or their relatives. Asthma, drug induced allergy and other hypersensitivities are common in these patients. The rate of vernal in relatives of patients was high, so it may be due to genetic origin of the disease.
• KEYWORDS: vernal keratoconjunctivitis; hypersensitivity; allergy; conjunctivitis
DOI: 10.3969/j.issn.1672-5123.2010.04.003


INTRODUCTION

Vernal keratoconjunctivitis (VKC) is a chronic and recurrent IgE-mediated allergic disease of the eyes that affect mostly children and young adults, living in warm climates. The diagnosis is generally based on the signs and symptoms of the disease. The most symptoms are itching, photophobia, burning and tearing. The most common signs are conjunctival injection, giant papillae, corneal involvement and limbal infiltrations1,2. Pathogenesis of VKC is probably multifactorial, with the interaction of the immune, nervous and endocrine systems. The disease is more common in male than female until puberty and then it is nearly equal in two genders. VKC has three types: palpebral, limbal and mixed. In about 6% of cases a reduction of visual acuity resulted from corneal complications, and in 2% of patients steroid-induced glaucoma was observed3,4. Patients with VKC frequently have a family or medical history of atopic disease, such as asthma, eczema, allergic rhinitis etc. In some investigations about half of the patients have had other allergies in themselves or their relatives1,2.

MATERIALS AND METHODS

This prospective study was performed on 520 patients with VKC over a 9-year period, from April 1999 to March 2008. Diagnostic criteria were defined for clinical signs and symptoms of the disease. Information about each patients such as age, sex, type of vernal and history of any accompanying allergies in patients and/or their first-degree relatives were recorded on questionnaires. All data were analyzed by SPSS.

RESULTS

Among 520 patients with VKC 369 cases (71.0%) were male and 151 (29.0%) were female. The mean age of patients was 15.3 years (6-30 years), but about 74.0% of patients (385 cases) were between 8-15 years old. 218 cases (41.9%) had palpebral type of vernal, 167 cases (32.1%) mixed type and 135 cases (26%) limbal type. 242 cases (46.5%) had history of various types of hypersensitivities in themselves and/or their first-degree relatives. Amongst these positive history cases, 68 patients (28.1%) had allergic dermatitis, 51 cases (21.1%) had vernal conjunctivitis history in their first-degree relatives, 46 cases (19.0%) asthma, 29 cases (12.0%) allergic sinusitis, 24 cases (10.0%) drugs hypersensitivity, 14 cases (5.8%) atopic dermatitis, 6 cases (2.5%) allergic rhinitis and 4 cases (1.6%) had hay fever history in their relatives.

DISCUSSION

VKC is a common ocular allergy which is not solely an IgE-mediated disease and on the basis of challenge studies as well as immunohistochemical and mediator studies, a Th2-driven mechanism with the involvement of mast cells, eosinophils, and lymphocytes has been suggested. Th2 lymphocytes are
春季角结膜炎患者其他过敏症的患病率

Ali Rezaei Shokooh¹, Reza Zarei Abanehi²

（作者单位：¹伊朗伊斯兰阿扎尔大学,德黑兰医学部,Amiralmooini医院；²伊朗德黑兰,德黑兰大学医学医院眼科）

通讯作者：Ali Rezaei Shokooh. shokooh@yahoo.com

摘要

目的：测定春季角结膜炎患者与其他亲属中相对其它过敏症的患病率。

方法：本前瞻性研究自1999-04/2008-03在250名春季角结膜炎的患者中进行。所有的年龄、性别、春季角结膜炎类型,其他伴随患者和/或其亲属的过敏反应的类型及其它的信息记录在问卷调查及并用统计学分析。

结果：500名患者中，男369例（71.9%），女151例（29.0%）。患者的平均年龄为15.3岁（6-30岁）。本研究对正常情况下有季节性角结膜炎或其他类型的过敏反应的家族病史中，64例（28.1%）有过敏性皮炎，51例（21.1%）（其亲属）春季结膜炎，46例（19.0%）哮喘，29例（12.0%）过敏性鼻窦炎，24例（10.0%）药物过敏，14例（5.8%）特异性皮炎，6例（2.5%）过敏性鼻炎，4例（1.6%）有花粉热的历史。

结论：不少春季角结膜炎患者和其他亲属有其他过敏性或其他类型。哮喘、药物引起的过敏和其他过敏在这些患者中普遍。患者的亲属中春季角结膜炎比率高，因此它可能是由于疾病的遗传起源。

关键词：春季角结膜炎;过敏;过敏症;结膜炎