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Original Research Article

To Study the Clinical Profile of Patients of Vernal Keratoconjunctivitis in Kashmir Valley

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ABSTRACT

Objective: To study the clinical profile of patients of Vernal Keratoconjunctivitis in Kashmir Valley
Material and method: 100 patients, who presented to the Department of Ophthalmology, Govt. Medical College Srinagar between March 2016 and August 2016, were included in the study. Patients of both genders, ranging from 5 to 20 years of age, were included in the study. Study was conducted over a period of 06 months from March 2016 to August 2016. Follow up was done every 03 weeks for 06 months.
Results: Out of 100 patients 72 were male and 28 were female, the highest incidence of Vernal Keratoconjunctivitis occurred in age group of 11 to 15 years. Maximum cases had Palpebral form followed by mixed form followed by bulbar form. The reported symptoms were itching (80%), redness (52%), watering/mucoid discharge (15%). Ocular itching was the predominant symptom.
Conclusion: There is a high prevalence of Vernal Keratoconjunctivitis in this region. Vernal Keratoconjunctivitis is a common form of allergic conjunctivitis and this disease tends to occur more in males of 11 to 15 year age group.

Key words: Vernal Keratoconjunctivitis, inflammation of conjunctiva, Kashmir Valley

INTRODUCTION

Vernal conjunctivitis is a bilateral, recurrent inflammation of the conjunctiva that tends to occur in children and young adults with a history of seasonal allergy, asthma, or eczema. Its onset is most common in the spring and summer (hence the name vernal), and the inflammation often goes into remission during the cooler months. [1] The highest incidence of the disease is in the warm, temperate Middle East Mediterranean region and Mexico. Boys are affected twice as often as girls with a peak incidence between the ages of 11 and 13 years. The disease is self-limited in children, with an average duration of 4-10 years. In adults, a more severe form of the disease may recur indefinitely. The prominent symptom is intense pruritus. Other complaints include photophobia, burning, tearing, mild ptosis, and thick, ropy, yellow, mucoid discharge. Typical symptoms are ocular itching, watering, foreign body sensation and mucoid discharge. [2]

The three forms of the vernal conjunctivitis are palpebral, limbal, and mixed. [3] The palpebral form is marked by cobblestone papillae on the superior tarsal conjunctiva while the lower lid is minimally affected. The initial change is papillary hypertrophy, after which the connective tissue of the substantia propria undergoes hyperplasia and proliferation to form giant

papillae that can reach up to 7-8 mm in diameter. The pressure of the cornea flattens the tops of the giant papillae to produce a pattern that resembles cobblestones. Tiny twigs of vessels are found in the centers of the papillae, which helps to differentiate these from large follicles such as may be seen in trachoma. When wiped with a cotton-tipped applicator, a milky veil that overlies the cobblestones pulls off in a stringy fashion. The limbal form is marked by a broad, thickened, gelatinous opacification of the superior limbus that can override the cornea. Again, tiny, twig-like vessels arise in the centers of these rounded lumps, whereas in limbal follicles the vessels appear around the sides of the elevations. Histologically, the tissue is infiltrated with lymphocytes, plasma cells, macrophages, basophils, and many eosinophils. A characteristic manifestation of limbal vernal conjunctivitis is the presence of Horner-Trantas dots, which are white, chalk-like dots composed of eosinophils and epithelial debris located at the limbus.

The cornea can be involved in up to 50% of cases. Corneal manifestations include a superficial pannus and a punctate epithelial keratitis. Small, gray patches of necrotizing epithelium may involve the upper one third to two thirds of the cornea – in severe cases, the cornea appears to be dusted with flour. [3] The affected area stains with fluorescein. A vernal "shield ulcer" develops as a horizontally oval, shallow, nonvascularized, indolent ulcer of the superior cornea that leads to severe discomfort. The edges are composed of shaggy, gray, dead epithelial cells, and there is infiltration of the underlying superficial stroma. After the ulcer heals, a mild corneal opacity may persist at the level of Bowman's layer.

MATERIALS AND METHODS

It is a retrospective study, carried out in the Department of Ophthalmology, Government Medical College, Srinagar. A total of 100 patients with Vernal Keratoconjunctivitis are included in our study diagnosed on the basis of:

History

Slit Lamp Examination

Study was conducted over a period of 06 months from March 2016 to August 2016. Follow up was done every 03 weeks for 06 months.

RESULTS

Table- 01: Age and Sex Distribution at the time of presentation

Age Group (Years)	No. of cases	%age
05 - 10	18	18
11 – 15	60	60
16 - 20	22	22
Total	100	100

Sex	No. of cases	%age
Male	72	72
Female	28	28
Total	100	100

Table- 02: Symptoms at the time of presentations:

Symptoms	No. of cases	%age
Itching	80	80
Redness	52	52
Photophobia	22	22
Ropy Discharge	45	45
Burning Sensation	20	20
Watering	15	15

Table-03; Disease Pattern

Disease Pattern	No. of cases	%age
Palpebral	63	63
Bulbar	12	12
Mixed	25	25
Total	100	100

Table-04: Ocular Signs in Vernal Keratoconjunctivitis

Ocular Signs	No. of cases	%age
Papillae of upper Palpebral Conjunctiva	73	73
Conjunctival Congestion	49	49
Limbal Papillae	20	20
Superficial Punctate Keratitis	12	12
Horner's trantas spots	20	20
Pseudogerontoxon	02	02
Shield ulcer	02	02

Out of 100 patients 72 were male and 28 were female, the highest incidence of Vernal Keratoconjunctivitis occurred in age group of 11 to 15 years. Maximum cases had Palpebral form followed by mixed form followed by bulbar form. The reported symptoms were itching (80%), redness (52%), watering/mucoid discharge (15%). Ocular itching was the predominant symptom. The presenting signs were palpebral papillae(73%), limbal hypertrophy

(20%), conjunctival congestion(49%) and perilimbal pigmentation(16%).

DISCUSSION

Our study showed that VKC in this part of country is essentially similar to the demographic profile and clinical presentation described in other tropical countries. [5] The study was undertaken during the spring and summer season when we believe most children with VKC in this region would have had active disease i.e., between March 2016 to August 2016.

The study included 100 patients. Out of 100 patients 72 were male and 28 were female, the highest incidence of Vernal Keratoconjunctivitis occurred in age group of 11 to 15 years. The mean age of the patients at the time of presentation was 9.1±5.3 years. Thus, confirming that VKC is a disease of childhood and usually resolves at puberty. Saboo US et al. [5] had the mean age of presentation as 12 years in their hospital based study.

The male to female ratio in our study was 3.6:1 showing a very high male preponderance. M:F ratio in our study is slightly higher than those reported from other parts of the world, but confirms the global pattern of male preponderance of VKC. Saboo US et al. [5] reported a M:F of 6.4:1 in their study. Leonardi and co-workers in two separate observation including a multicentric study from Italy found M:F ratio between 3.3 and 3.5. [6,7]

The patients presented with classical symptoms of VKC like itching of eyes, redness, watering and foreign body sensation; of which 80% of children had ocular itching as their predominant symptom. Similar results were observed by De Smedt et al. [4] and Saboo US et al. [5] in their studies.

The prevalence of subtypes of VKC is different in various parts of the world. The multi centric study from Italy [7] reported predominance of limbal presentation (53.8%) whereas Ukponmwan reported 82.6% cases with palpebral presentation in Nigeria. [8] De Smedt et al in a School Survey on VKC in central Africa reported predominance of limbal presentation (98.4%), In contrast, majority of our cases had Palpebral form (63%), followed by mixed form (25%), followed by bulbar form (12%). This pattern was similar to the Saboo. U.S et al. [5] study in south India. Perilimbal conjunctival pigmentation is a new clinical sign described in VKC. [9-11]

CONCLUSION

There is a high prevalence of Vernal Keratoconjunctivitis in this region. Vernal Keratoconjunctivitis is a common form of allergic conjunctivitis and this disease tends to occur more in males of 11 to 15 year age group. The disease is more common in spring and summer seasons. This disease needs thorough evaluation and meticulous approach for early diagnosis, which will reduce the disease morbidity.

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