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ORIGINAL ARTICLE

Assessment of clinical profile of patients with allergic conjunctivitis

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ABSTRACT:
Background: Allergic diseases have dramatically increased in the last decades. Ocular allergy represents one of the most common ocular conditions encountered in clinical practice. The present study was conducted to assess cases of allergic conjunctivitis in adults.
Materials & Methods: The present study was conducted on 82 patients of allergic conjunctivitis of both genders. A careful eye examination was performed in all patients. All clinical features were recorded.
Results: Out of 82 patients, males were 52 and females were 30. Seasonal allergic conjunctivitis was seen in 49 and Perennial allergic conjunctivitis was seen in 33 patients. The difference was non- significant (P> 0.05). Redness was seen in 76, tearing in 45, watering in 68 and photophobia in 41. The difference was significant (P< 0.05).
Conclusion: Authors found allergic conjunctivitis a common aye disorder. The common features were redness, tearing, watering and photophobia.
Key words: Allergic conjunctivitis, Redness, Tearing

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INTRODUCTION

Allergic diseases have dramatically increased in the last decades. Ocular allergy represents one of the most common ocular conditions encountered in clinical practice. A single cause of this increase cannot be pinpointed and experts are therefore considering the contribution of numerous factors, including genetics, air pollution in urban areas. Ocular allergy can itself produce irritating symptoms and severe forms, such as atopic keratoconjunctivitis, could finally lead to visual loss.[1]

Allergic conjunctivitis (AC) is a type of ocular allergy which in turn can be subdivided into seasonal allergic conjunctivitis (SAC) and perennial allergic conjunctivitis (PAC). This classification also includes other conditions such as atopic keratoconjunctivitis (AKC), vernal keratoconjunctivitis (VKC), giant papillary conjunctivitis (GPC) and contact dermatoconjunctivitis (CDC) – with different manifestations, different clinical courses, different immunopathological characteristics, and variable responses to treatment.[2]

Urbanization, industrialization and climate change have led to rapidly occurring changes to both the indoor and outdoor environment. This has significant implications on the prevalence and management of allergic disease, including AC. Rising temperatures, precipitation and more extreme weather have resulted in longer or earlier pollen seasons, thus increasing environmental carbon dioxide and temperature.[3]

AC can affect both children and adults, often coexisting with other allergic diseases such as asthma, atopic dermatitis or food allergy, though it is particularly associated to allergic rhinitis. Indeed, the term "rhinoconjunctivitis" is used in joint reference to both disorders, thereby complicating knowledge of each individual disease condition. Nevertheless, in recent years new studies have made it possible to know the true prevalence of allergic conjunctivitis, its natural history and socioeconomic impact in the different countries.[4] The present study was conducted to assess cases of allergic conjunctivitis in adults.

MATERIALS & METHODS

The present study was conducted in the department of Ophthalmology. It comprised of 82 patients of allergic conjunctivitis of both genders. All were informed regarding the study. Ethical approval was obtained from institute prior to the study.

General information such as name, age, gender etc. was recorded. A careful eye examination was performed in all patients. All clinical features were recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 82		
Gender	**Males**	**Females**
Number	52	30

Table I, graph I shows that out of 82 patients, males were 52 and females were 30.

Graph I Distribution of patients

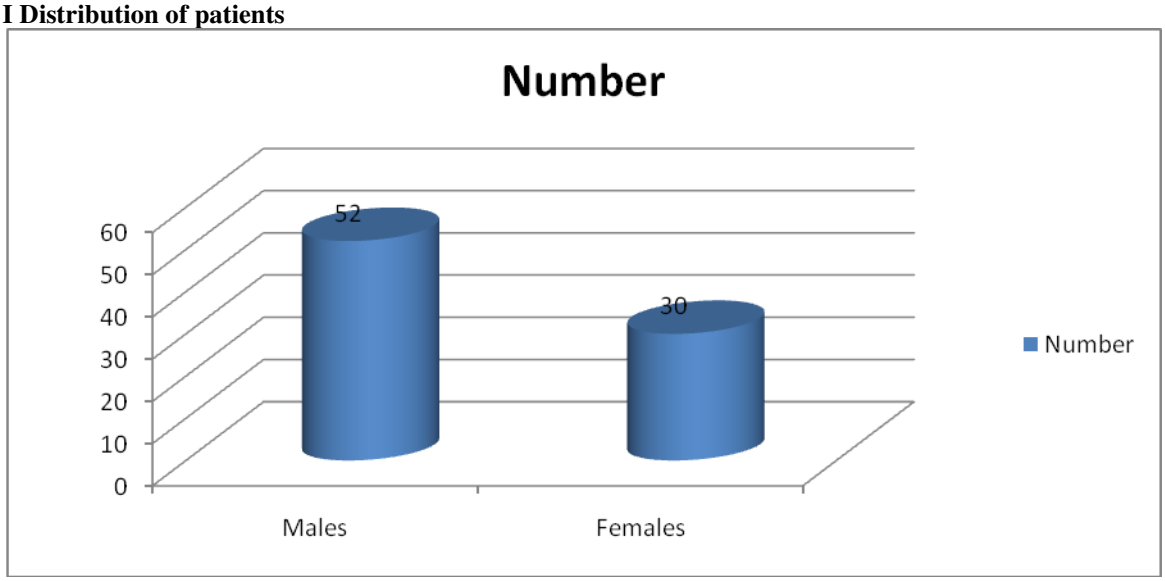


Table II Type of Allergic Conjuctivitis

Type	Number	P value
Seasonal AC	49	0.21
Perennial AC	33	

Table II, graph I shows that seasonal allergic conjunctivitis was seen in 49 and Perennial allergic conjunctivitis was seen in 33 patients. The difference was non- significant (P> 0.05).

Graph II Type of Allergic Conjuctivitis

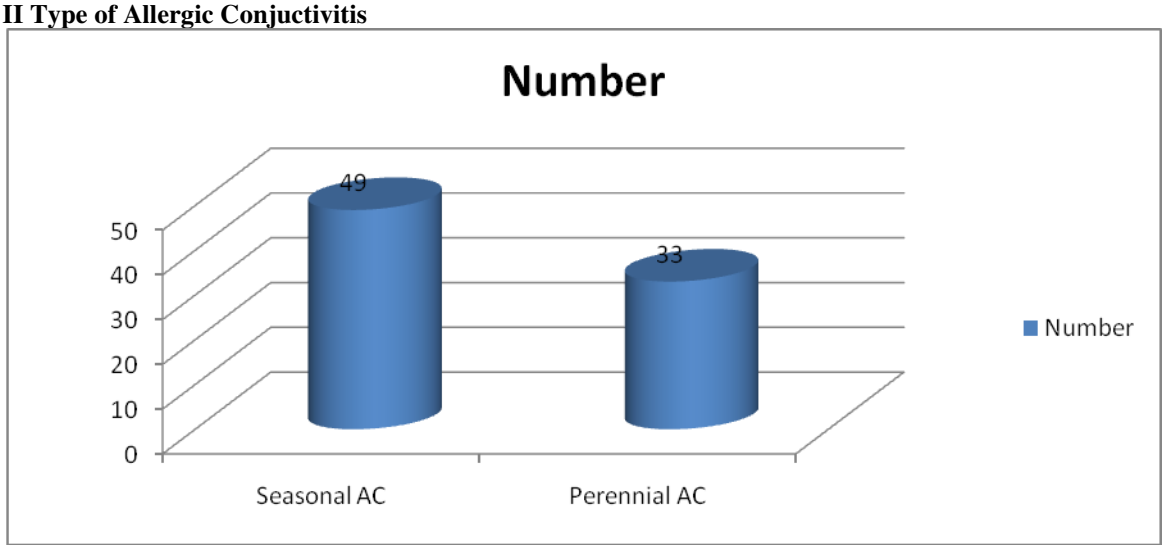
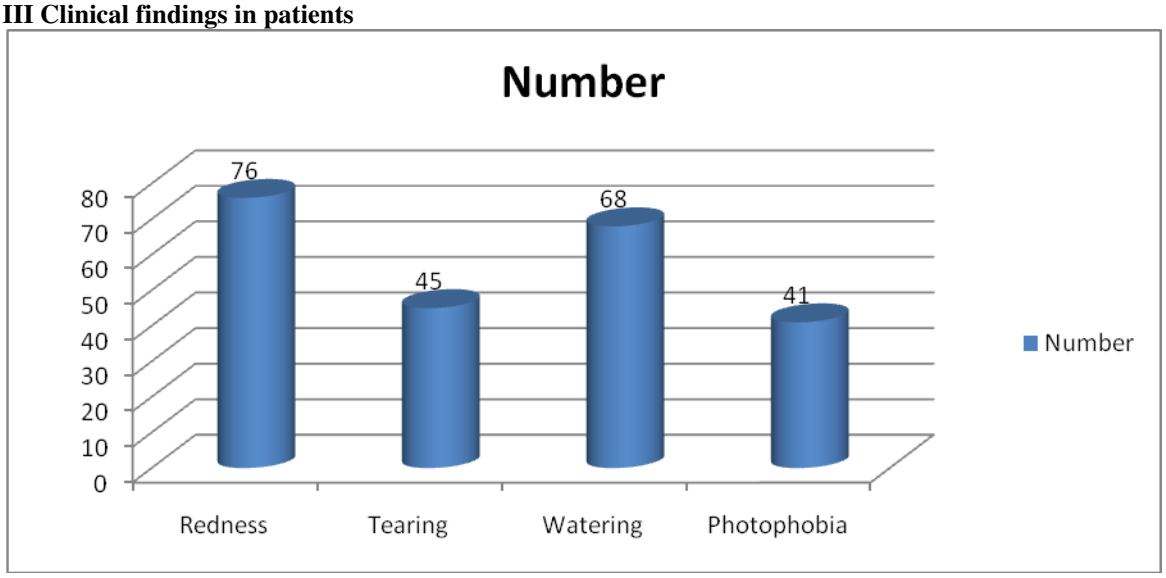


Table III Clinical findings in patients

Clinical findings	Number	P value
Redness	76	0.01
Tearing	45	
Watering	68	
Photophobia	41	

Table III, graph III shows that redness was seen in 76, tearing in 45, watering in 68 and photophobia in 41. The difference was significant (P< 0.05).

Graph III Clinical findings in patients



DISCUSSION

Seasonal allergic conjunctivitis (SAC) and perennial allergic conjunctivitis (PAC) are usually mild, occurs in atopic individuals, with ocular inflammation driven by IgE-mediated mechanisms.[5] Symptoms are intermittent in SAC and persistent in PAC. PAC is another form of AC usually induced by exposure to dust mites (in over 52% of all cases), fungi, animal epithelial and/or occupational allergens. The affected patients can show symptoms throughout the year, though with exacerbations in 79% of the cases.[6] No age or gender predilection is observed. It seems that the prevalence of association to perennial rhinitis or other allergic diseases is greater (over 95% of all subjects) than in SAC and a slight increase is also seen in the prevalence of eosinophils in conjunctival swab samples.[7] The present study was conducted to assess cases of allergic conjunctivitis in adults.

In present study, out of 82 patients, males were 52 and females were 30. Seasonal allergic conjunctivitis was seen in 49 and Perennial allergic conjunctivitis was seen in 33 patients. Bonini et al[8] conducted a study in which questionnaires from 3120 adolescents (mean 13.3 6 1.1 years) were analyzed. It was found that ocular itching in the past 12 months occurred in 1,592 (51%). The most frequent associated symptom was tearing (74%) followed by photophobia (50.1%) and foreign body sensation (37.1%). The prevalence of allergic conjunctivitis was 20.7% affecting more females. Moderate and severe interference in daily activities were reported by 66% and 21%, respectively. Diagnosis of AC was reported by 47% of them.

We found that redness was seen in 76, tearing in 45, watering in 68 and photophobia in 41. Contact allergy, or allergic contact dermatitis, is not an IgE mediated allergy, and can be considered in a different category than the before mentioned allergic conditions. It is a type-IV delayed hypersensitivity response that occurs through interaction of antigens with Th1 and Th2 cell subsets followed by release of cytokines. It consists of two phases: sensitization (at the first exposition to the allergen, with production of memory T-lymphocytes), and elicitation of the inflammatory response (at the re-exposure to the antigen, mediated by the activation of memory allergen-specific T-lymphocytes.[9]

Allergic conjunctivitis is a bilateral and self-limiting inflammatory process. The inflammation is fundamentally caused by an IgE-mediated immune mechanism or immediate hypersensitivity mechanism resulting from direct contact of the allergen with the conjunctival surface in sensitized patients– triggering mast cell activation and the release of different mediators. However, other mechanisms and mediators are also implicated in this

inflammatory process, such as the neurogenic mechanism, adhesion molecules, and other systemic immune mechanisms that contribute to the appearance of the signs and symptoms that characterize the disease.[10]

CONCLUSION

Authors found allergic conjunctivitis a common aye disorder. The common features were redness, tearing, watering and photophobia.

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