

Knowledge and Awareness of Ocular Allergy Among Community in Aseer Region of KSA

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ABSTRACT

Study design: Cross sectional.

Background: There has been an apparent increase in allergy disorders in recent decades, with a significant percentage of the world's population suffering from ocular allergies. A sufficient level of public education and awareness regarding ocular allergies may aid in minimizing the sickness burden. Ocular allergies, or allergic conjunctivitis, is an inflammatory reaction of the surface of the eye to particles (allergens) in the environment and one of the most common ocular surface diseases in primary eye care.

Methods: In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Ocular Allergy. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia.

Results: 51.2% agreed that Inflammation of the eye is harmless foreign substance while majority believe that itching is the major symptoms for allergy, 58.7% do not agree that it is transferable disease from man to man.

Conclusion: The general level of awareness among university students is poor. Students' awareness of ocular allergies was influenced by their academic programs. Students should be taught about ocular allergy prevention and control, as well as the difficulties that come with it, through public health efforts.

Keywords: Ocular, Allergy, Symptoms, Knowledge

INTRODUCTION AND BACKGROUND

There has been an apparent increase in allergy disorders in recent decades, with a significant percentage of the world's population suffering from ocular allergies. A sufficient level of public education and awareness regarding ocular allergies may aid in minimizing the sickness burden.

Ocular allergies, or allergic conjunctivitis, is an inflammatory reaction of the surface of the eye to particles (allergens) in the environment and one of the most common ocular surface diseases in primary eye care¹. Seasonal allergic conjunctivitis and perennial allergic conjunctivitis alone make up 95% of all allergic conjunctivitis in the U.S². Yet allergic conjunctivitis is often unaddressed largely due to its relatively benign nature. While allergists consider the respiratory ramifications, doctors of optometry can manage patients for their ocular allergies, bolstering their overall care and quality of life.

Causes & risk factors Seasonal causes—allergens. Chronic causes—contact lens reaction^{3,4}.

The prevalence of allergic conjunctivitis (AC) has not been established. Estimates suggest that ocular allergies affect 15% to 20% of the worldwide population, or between 50 and 85 million Americans, suffer from allergic conjunctivitis or some form of ocular allergy⁵.

The prevalence of allergic conjunctivitis is similar in Europe, Japan, and Australia, and is increasing worldwide. The aim of this study was to verify the prevalence of ocular allergy symptoms, co-morbidities, and their impact on adolescents⁵.

Symptoms of allergic conjunctivitis may vary from very mild to very severe. Itching is the most common symptom. Other symptoms may include redness, soreness, swelling and stinging⁶.

These symptoms primarily occurs in children and young adults.

Allergic conjunctivitis consider one of the most frequent reasons for a child's consultation with an ophthalmologist^{3,4}.

Allergic conjunctivitis can be seen as an isolated finding but is often associated with allergic rhinitis, atopic dermatitis, and/or asthma^{7,8}. Ocular allergies are a adversely impact on the individual and society in terms of its effect on the quality of life and productivity in school and work and it need to be managed and protect from irritant⁹. However, medication is beset with challenges such as varying efficacy from patient to patient, drug cost, and potential complications such as dry eye, cataract and glaucoma⁵.

It is Known that increasing awareness of allergic conjunctivitis will increase the chance of treating it and reduce the incidence of complications¹⁰.

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Various population-based studies have found that in both rural and urban people, awareness and knowledge of various eye disorders such as glaucoma and cataract is low in developed countries, and worse in poor countries. Nonetheless, it is agreed that increased awareness of allergic conjunctivitis and knowledge of treatment choices will greatly aid in the management of ocular allergy as a complement to eye care practitioners' efforts. Students in universities are better positioned to be change agents in their communities, and their understanding of ocular allergy will have an impact not only on their own quality of life, but also on the quality of life of their communities as a whole and knowledgeable health professionals. Similar studies were conducted among general population and university students, which showed that the levels of their knowledge were insufficient, as Almasaud et al.¹ showed only 33.2% of general population aware about AC, Al-Ghofaili et al.² observed that only 19.1% of students were aware about AC and Kyei et al.¹¹ showed only 34.7%. The objective of this research was to assess the knowledge and awareness of OA among Aseer Region population, Saudi Arabia.

METHODS AND MATERIALS

Study Setting: Aseer region Southwestern, KSA.

Study Population: 500 of general population in Aseer region.

In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Ocular Allergy. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia.

After collection of data, data were coded and entered in the SPSS ver.20 software for analyses descriptive statistics (mean standard deviation, frequencies and %s were computed), to measure the significance differences t-test and chi-square test was used at 5% level of significance. Data was collected from the community through an electronic version of the questionnaire. Ethical approval was obtained from King Khalid University, Saudi Arabia. The study duration was from April-2021 to April-September-2021.

RESULTS

Cronbach alpha was 0.86.

Table:1 Gender

Frequency		Percent
Male	186	32,3
Female	390	67,7
Total	576	100,0

As per table 1, 32.3% were male and 67.7% were females.

Table 2A: What is your understanding of OA?

	Frequency	Percent
Inflammation of the eye in response to harmless foreign substance	295	51,2
Caused by frequent rubbing of the eye	34	5,9
Discomfort and pains within the eye	213	37,0
Don't know	34	5,9
Total	576	100,0

As per table 2A 51.2% were believed that Inflammation of the eye in response to harmless foreign substance is OA.

Table 2B: Majority of people with ocular allergy have itching as the first symptom

Frequency		Percent
True	422	73,3
False	46	8,0
Don't know	108	18,8
Total	576	100,0

As per table 2B 73.3% agreed that itching is the first symptom of OA.

Table 2C: Eye structures involved in OA include

Frequency		Percent
Conjunctiva	63	10,9
Cornea	34	5,9
Conjunctiva, cornea and eyelids	222	38,5
Don't know	171	29,7
Conjunctiva and cornea	86	14,9
Total	576	100,0

As per table 2C, 38.5% respondents Conjunctiva, cornea and eyelids are eye structures involved in OA.

Table 2D: Ocular allergies transmitted from person to person

Frequency		Percent
True	111	19,3
False	338	58,7
Don't know	127	22,0
Total	576	100,0

As per above table 58.7% disagreed that ocular allergies transmitted from person to person.

Table 2E: Ocular allergy is one of the most common conditions that general population suffer from

Frequency		Percent
True	309	53,6
False	116	20,1
Don't know	151	26,2
Total	576	100,0

As per table 2E, 53.5% agreed that Ocular allergy is one of the most common conditions that general population suffer from.

Table 3: What is the best way to prevent the occurrence of eye allergies?

Frequency		Percent
Not to be close to those who have allergies in their eyes	18	3,1
Visit eye clinics	167	29,0
Stay away from sources that stimulate the occurrence of eye allergies	361	62,7
Use of anti-allergic eye medications	30	5,2
Total	576	100,0

According to table 3, the best way to prevent the occurrence of eye allergies is to Stay away from sources that stimulate the occurrence of eye allergies (62.7%).

Table 4: What do you think are the medicines used in the treatment of eye allergies?

Frequency	Percent	
Antibiotics	53	9,2
moisturizing eye drops	289	50,2
antihistamines	113	19,6
warm compresses	32	5,6
Don't know	89	15,5
Total	576	100,0

As per table 04 more than 50.% agreed that moisturizing eye drops are the best medicines in case of OA.

Table 5: The sensitivity of the eye is transmitted from one person to another *Gender Cross table

Male	Female	Total	
True	25	86	111
False	122	216	338
Don't know	39	88	127
Total	186	390	576

P=0.027

As per table 5 Gender and sensitivity have significant relationship.

Table 6: Smoking is one of the most important factors of eye allergy *Gender Cross table

Male	Female	Total	
True	73	118	191
False	46	92	138
Don't know	67	180	247
Total	186	390	576

P=0.046

Smoking is a significant risk factor (Table 6).

DISCUSSION

The analysis was predicated on the assumption that students were evenly dispersed between colleges, which could have an impact on the representativeness of the university's diverse components. The questionnaire utilized has the limitation of not being able to verify the accuracy of the responses given. Nonetheless, the huge size of the study sample offers the advantage of partially reducing these shortcomings^{11,12}.

Students at the tertiary level had a low level of awareness about ocular allergies. Despite its bothersome symptoms and effects, ocular allergies is not regarded a high priority eye illness and does not receive appropriate public health attention. This could have contributed to the lack of awareness. Furthermore, reports of inadequate awareness of some of the most serious eye disorders, such as glaucoma and cataract, have been identified, raising concerns about the need for increased public education^{4,13}.

The findings of this study showed that itching was the most recognized symptom of ocular allergy among those who were aware of the condition. Itching is a common sign of ocular allergies and diagnosing it without it is always difficult¹⁴.

The majority of the respondents in this survey learned about ocular allergy from the media and the internet. The second important factor in raising knowledge among responders was medical training and

information from eye care specialists. Information about ocular allergy from relatives or acquaintances also helped to raise awareness¹⁵.

The most common cause of ocular allergy was dust, which was followed by pollen, smoking, and pet dander. These allergens were found to be frequent in the tropics and are of particular importance because they provide insights to a better knowledge of the pathophysiology, diagnosis and management of allergy disorders in the Tropics^{16,17}.

CONCLUSION

The study found that awareness of ocular allergy was low among university students, and even worse when health sciences students were removed. Despite the fact that the media was the most effective in raising awareness, students who got their information from the media had the least understanding of ocular allergy. Students who learned about ocular allergies from medical training and eye care providers had the highest level of ocular allergy knowledge.

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Competing Interest: None

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