ORIGINAL RESEARCH

Assessment of olopatadine and alcaftadine in cases of allergic conjunctivitis

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ABSTRACT

Background: Allergic diseases have dramatically increased in the last decades. The present study compared topical olopatadine (0.1%) and alcaftadine (0.25%) in cases of allergic conjunctivitis. **Materials & Methods:** 70 patients of allergic conjunctivitis of both genders were divided into 2 groups of 35 each. Group I patients were prescribed topical 0.1% Olopatadine eyedrops and group II patients were prescribed topical 0.25% Alcafatadine eyedrops. Grading was done where 0 indicates no itch and 3 indicating constant desire to itch. Ocular redness and discharge were scored using 5-point scale (0–4), foreign body sensation and watering were graded using the 4-point scale (0–3). In signs, upper tarsal papillae were graded using 4-point scale (0–3) with 0 indicating no papillae and 3 indicating predominance of giant papillae. **Results:** There were 20 males and 15 females in group I and 17 males and 18 females in group II. At 15 minutes, 1 day and 1 week, 1 patient in group I and 2 in group II, 9 in group I and 7 in group II and 25 in group I and 26 in II recovered from discharge. 8 patients in group I and 7 in group II, 12 in group I and 8 in group II and 15 in group I and 20 in group II recovered from redness. 2 patients in group I and 3 in group II, 20 in group I and 17 in group II and 13 in group I and 15 in group II recovered foreign body sensation. The difference was significant (P< 0.05). **Conclusion:** Both drugs olopatadine and alcaftadine found to be equally effective in cases of allergic conjunctivitis.

Key words: allergic conjunctivitis, alcaftadine, olopatadine

INTRODUCTION

Allergic diseases have dramatically increased in the last decades. Ocular allergy represents one of the most common ocular conditions encountered in clinical practice.[1] 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, pets, and early childhood exposure. The associated costs have increased substantially as more of the population require treatment for allergies. Ocular allergy can itself produce irritating symptoms and severe forms, such as atopic keratoconjunctivitis, could finally lead to visual loss.[2]

Allergic conjunctivitis is an inclusive term that encompasses seasonal allergic conjunctivitis (SAC), perennial allergic conjunctivitis (PAC), vernal keratoconjunctivitis (VKC), and atopic keratoconjunctivitis (AKC).[3] However, AKC and VKC have clinical and pathophysiological features quite different from SAC and PAC, in spite of some common markers of allergy.[4] Topical corticosteroids are the most potent agents to control inflammatory symptoms, but their use is not devoid of side-effects. Recently, introduced topical agents have both anti-histaminic and mast cell stabilization action.[5] Their use can control acute symptoms and prevent relapses as well. These agents (such as olopatadine, bepotastine, and alcaftadine) are FDA approved for use in allergic conjunctivitis.[6] The present study compared topical olopatadine (0.1%) and alcaftadine (0.25%) in cases of allergic conjunctivitis.

MATERIALS & METHODS

The present study consisted of 70 patients of allergic conjunctivitis of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups of 35 each. Group I patients were prescribed topical 0.1% Olopatadine eyedrops and group II patients were prescribed topical 0.25% Alcafatadine eyedrops. Grading was done where 0 indicates no itch and 3 indicating constant desire to itch. Ocular redness and discharge were

scored using 5-point scale (0–4), foreign body sensation and watering were graded using the 4-point scale (0–3). In signs, upper tarsal papillae were graded using 4-point scale (0–3) with 0 indicating no papillae and 3 indicating predominance of giant papillae. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group I	Group II
Drug	0.1% Olopatadine	0.25% Alcafatadine
M:F	20:15	17:18

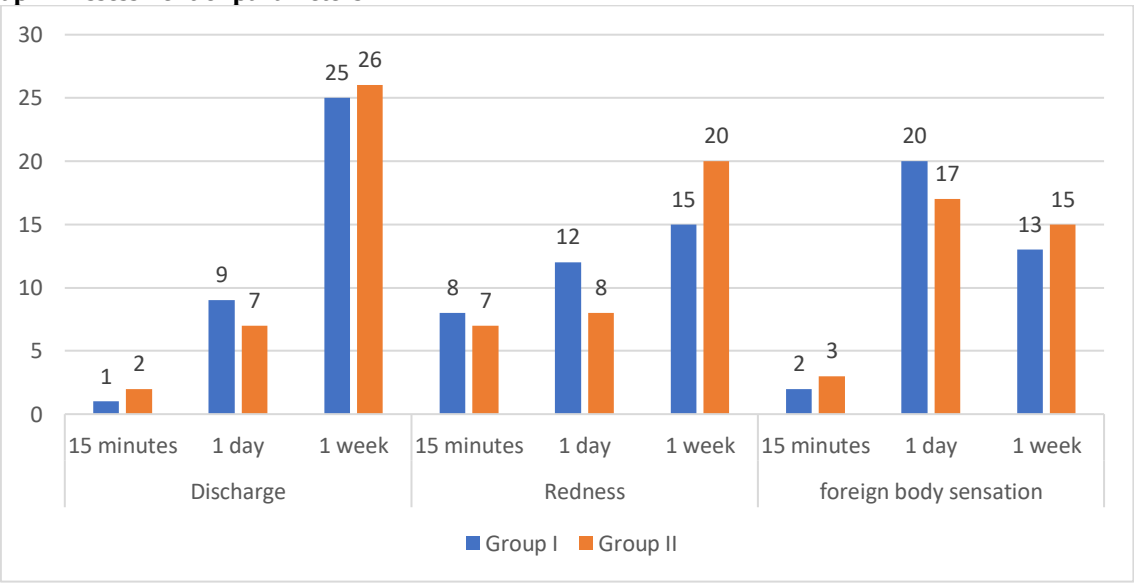
Table I shows that there were 20 males and 15 females in group I and 17 males and 18 females in group II.

Table II Assessment of parameters

Parameters	Duration	Group I	Group II	P value
Discharge	15 minutes	1	2	0.02
	1 day	9	7	
	1 week	25	26	
Redness	15 minutes	8	7	0.05
	1 day	12	8	
	1 week	15	20	
foreign body sensation	15 minutes	2	3	0.04
	1 day	20	17	
	1 week	13	15	

Table II, graph I shows that at 15 minutes, 1 day and 1 week, 1 patient in group I and 2 in group II, 9 in group I and 7 in group II and 25 in group I and 26 in II recovered from discharge. 8 patients in group I and 7 in group II, 12 in group I and 8 in group II and 15 in group I and 20 in group II recovered from redness. 2 patients in group I and 3 in group II, 20 in group I and 17 in group II and 13 in group I and 15 in group II recovered foreign body sensation. The difference was significant (P< 0.05).

Graph I Assessment of parameters



DISCUSSION

Avoidance of the offending antigen is the primary behavioral modification for all types of allergic conjunctivitis; however, the eyes present a large surface area and thus it is often impossible to avoid ocular exposure to airborne allergens.[7] Artificial tear substitutes provide a barrier function and help to improve the first-line defense at the level of conjunctival mucosa. These agents help to dilute various allergens and inflammatory mediators that may be present on the ocular surface, and they help flush the ocular surface of these agents.[8] When avoidance of non-pharmacologic strategies do not provide adequate symptom relief, pharmacologic treatments may be applied topically or given systemically to diminish the allergic response.[9] The present study compared topical olopatadine (0.1%) and alcaftadine (0.25%) in cases of allergic conjunctivitis.

We found that there were 20 males and 15 females in group I and 17 males and 18 females in group II. Ono et al[10] compared olopatadine (0.1%), bepotastine (1.5%), and alcaftadine (0.25%) for mild to moderate allergic conjunctivitis cases and the efficacy of three topical medications in 45 patients with 15 patients in each of the three groups. Patients with mild to moderate allergic conjunctivitis were sequentially assigned to respective groups, and relief of symptoms and signs were noted upto 1-month follow-up. All three topical medications faired almost equally in resolving symptoms of the patients with mild to moderate allergic conjunctivitis, and most of them reported complete relief after 1 week of use of medication. Few cases with limbal or palpebral papillae reported symptomatic relief after use of medication, but the resolution of these signs was not noted in all three groups.

We found that at 15 minutes, 1 day and 1 week, 1 patient in group I and 2 in group II, 9 in group I and 7 in group II and 25 in group I and 26 in II recovered from discharge. 8 patients in group I and 7 in group II, 12 in group I and 8 in group II and 15 in group I and 20 in group II recovered from redness. 2 patients in group I and 3 in group II, 20 in group I and 17 in group II and 13 in group I and 15 in group II recovered foreign body sensation. Ackerman et al[11] conducted comparative trials among 0.25% alcaftadine and 0.2% olopatadine in a study using conjunctival allergan challenge, alcaftadine was found superior to olopatadine at the earliest time point (3 min post-challenge). Only alcaftadine provided significant relief in chemosis at 16 and 24 hours post-instillation.

Baiswar et al[12] assessed cases of allergic conjunctivitis on 108 patients of both genders. Symptoms such as tearing, photophobia, redness, watering, foreign body sensation etc. were analyzed. Out of 108 patients, males were 48 and females were 60. Seasonal AC was seen in 20 males and 27 females and Perennial AC was seen in 28 males and 33 females. Tearing was seen in 98, photophobia in 54, watering in 83 and redness in 106 patients.

The limitation the study is small sample size.

CONCLUSION

Authors found that both drugs olopatadine and alcaftadine found to be equally effective in cases of allergic conjunctivitis.

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