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Sponsor

Alcon Research, Ltd.

Generic Drug Name

Olopatadine 1 mg/mL Eye Drops, Solution

Trial Indication(s)

Seasonal allergic conjunctivitis

Protocol Number

C-05-30

Protocol Title

Clinical Study of the Mast-Cell Stabilizing Effects of Olopatadine Using the Conjunctival Allergen Challenge Model

Clinical Trial Phase

Phase IV

Reason for Termination (if applicable)

Not applicable

Study Start/End Dates

October 26, 2006 - April 16, 2007

Study Design/Methodology

The design was double-masked, randomized, placebo-controlled, contralateral eye, single center.

Centers

Participants were recruited from a single investigational site located in Italy.

Objectives

The primary objective was to assess the effects of olopatadine on the release of mast cell histamine after conjunctival allergen challenge (CAC).

Test Product (s), Dose(s), and Mode(s) of Administration

Test Product: Olopatadine 1 mg/mL Eye Drops, Solution
Dose: One drop of olopatadine twice-daily, in one eye, for the 5 days immediately preceding the final visit (Visit 3) and one dose at the final visit (a 6-day period).
Mode of Administration: Topical ocular

Reference Product: Placebo (DACRIOSOL® Eye Drops)
Dose: One drop of placebo twice-daily, in one eye, for the 5 days immediately preceding the final visit (Visit 3) and one dose at the final visit (a 6-day period).
Mode of Administration: Topical ocular

Statistical Methods

The primary statistical objective of this study was to demonstrate superiority of olopatadine relative to contralateral placebo in decreasing histamine level in tears collected within 10 minutes post-challenge after five days of treatment (Visit 3). The primary efficacy variable was mean tear histamine level. A paired t-test was used to test the significance of the difference between olopatadine and contralateral placebo.

The secondary efficacy variables were tear cytology results (mean counts of eosinophils, neutrophils, and lymphocytes); and ocular itching, conjunctival redness, episcleral redness, ciliary redness scores graded on a 0 to 4 scale with half-unit interval (0=none, 4=extremely severe). The paired t-tests were used to test the significance of the differences between Olopatadine and contralateral placebo in tear cytology variables at 30 minutes post-challenge after five days of treatment (Visit 3). The paired t-tests were used to test the significance of the differences between Olopatadine and contralateral placebo in itching and redness at 5, 10, 20, and 30 minutes post-challenge after five days of treatment (Visit 3).

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Study Population: Key Inclusion/Exclusion Criteria

Inclusion criteria:

- Manifests a successful ocular allergen challenge reaction
- Has positive skin test results or positive specific immunoglobulin E (IgE)
- Voluntarily consents to participate and provides written informed consent prior to any protocol-specific procedures

Exclusion criteria:

- Use of medications outside protocol-specified parameters
- Signs, symptoms or history of any condition that, per protocol or in the opinion of the investigator, might compromise:
  1. the safety or well-being of the participant or study staff
  2. the safety or well-being of the participant's offspring (such as through breast-feeding)
  3. the analysis of results

Participant Flow Table

	Overall Participants
Started (Randomised to Treatment)	25
Safety Analysis Set (SAS)	24
Intent-to-treat (ITT) Analysis Set	23
Per Protocol (PP) Analysis Set	23
Completed	23
Discontinued	2
Reason for discontinuation: Decision unrelated to an adverse event	2

Baseline Characteristics

Gender Demographic Statistics
(Safety Analysis Set)

Gender	Overall participants (N=24)
Male	12
Female	12

Continuous Age Demographic Statistics
(Safety Analysis Set)

Age (years)	Overall participants (N=24)
Mean (Standard Deviation)	38.3 (13.5)

Summary of Efficacy

Primary Outcome Measure

No significant treatment difference was noted for on-therapy post-CAC tear histamine levels.

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On-Therapy Tear Histamine Levels (nmol/L) (Intent-to-Treat)

		On-Therapy (Visit 3) Tear Histamine Level		
		PRE-CAC	POST-CAC	Pre-to Post-CAC Change
Olopatadine	**Mean**	34.94	41.68	6.73
	Std	45.79	45.88	61.44
	N	23	23	23
	Min	4.90	8.10	-184.70
	Max	200.00	200.00	145.50
Placebo	**Mean**	29.97	47.21	17.24
	Std	29.56	42.59	35.42
	N	23	23	23
	Min	5.70	8.60	-34.90
	Max	100.00	200.00	100.00
Difference	**Mean**	4.98	-5.53	-10.51
	Std	47.99	42.53	58.78
	N	23	23	23
	Min	-85.70	-89.60	-170.20
	Max	171.20	98.70	95.00
	T	0.50	-0.62	-0.86
	Pvalue	0.6238	0.5393	0.4005

Secondary Outcome Measures

- Olopatadine is effective in reducing lymphocytes, eosinophils, and neutrophils after CAC
- Olopatadine is effective in the treatment of ocular itching using the Conjunctival Allergen Challenge (CAC) model
- Olopatadine is effective in the treatment of ocular redness using the Conjunctival Allergen Challenge (CAC) model

Summary of Safety

No untoward safety issues were identified in participants (18 to 71 years of age) with 6 days of exposure to olopatadine 1 mg/mL eye drops solution based upon a review of adverse events and an assessment of ocular safety parameters.

Serious Adverse Events

No serious adverse events were reported during the study.

Other Adverse Events

A single participant experienced cough.

Other Relevant Findings

There were no other relevant findings to disclose.

Date of Clinical Trial Report

28-August-2008