For the use of a Registered Medical Practitioner or a Hospital or a Laboratory only

Olopatadine Ophthalmic Solution IP 0.1% w/v

IF2

Eye Drops

COMPOSITION

Each ml contains
Olopatadine Hydrochloride IP
equivalent to Olopatadine .....1 mg
Benzalkonium Chloride IP ..... 0.01 % w/v
(as preservative)
Aqueous vehicle ..... q.s.

DOSAGE FORM

Ophthalmic Solution

PHARMACOLOGY

Pharmacodynamics

Olopatadine is an inhibitor of the release of histamine from the mast cell and a relatively selective histamine H1-antagonist that inhibits the *in vivo* and *in vitro* type 1 immediate hypersensitivity reaction including inhibition of histamine induced effects on human conjunctival epithelial cells.
It antagonizes histamine (the primary mediator of allergic response in humans) and prevents histamine induced inflammatory cytokine production by human conjunctival epithelial cells. Data from *in vitro* studies suggest that it may act on human conjunctival mast cells to inhibit the release of pro-inflammatory mediators. In patients with patent nasolacrimal ducts, topical ocular administration of olopatadine was suggested to reduce the nasal signs and symptoms that frequently accompany seasonal allergic conjunctivitis. It does not produce a clinically significant change in pupil diameter.

Pharmacokinetics

Following topical ocular administration in man, olopatadine was shown to have low systemic exposure. Two studies in normal volunteers (totaling 24 subjects) dosed bilaterally with olopatadine 0.15% ophthalmic solution once every 12 hours for 2 weeks demonstrated plasma concentrations to be generally below the quantitation limit of the assay (<0.5 ng/mL). Samples in which olopatadine was quantifiable were typically found within 2 hours of dosing and ranged from 0.5 to 1.3 ng/mL. The half-life in plasma was approximately 3 hours (8-12), and elimination was predominantly through renal excretion. Approximately 60-70% of the dose was recovered in the urine as parent drug. Two metabolites, the mono-desmethyl and the N-oxide, were detected at low concentrations in the urine.
Results from an environmental study demonstrated that olopatadine hydrochloride ophthalmic solution 0.1% was effective in the treatment of the signs and symptoms of allergic conjunctivitis when dosed twice daily for up to 6 weeks. Results from conjunctival antigen challenge studies demonstrated that olopatadine hydrochloride ophthalmic solution 0.1%, when subjects were challenged with antigen both initially and up to 8 hours after dosing, was significantly more effective than its vehicle in preventing ocular itching associated with allergic conjunctivitis.

INDICATIONS

Olopatadine hydrochloride ophthalmic solution 0.1% is indicated for the treatment of the signs and symptoms of allergic conjunctivitis.

DOSAGE AND ADMINISTRATION

The recommended dose is one drop in each affected eye two times per day at an interval of 6 to 8 hours. Treatment may be maintained for up to four months, if considered necessary.

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Use in elderly

No dosage adjustment in elderly patients is necessary.

Pediatric patients

Olopatadine Hydrochloride 0.1% Eye Drops may be used in pediatric patients three years of age and older at the same dose as in adults. The safety and efficacy of Olopatadine Hydrochloride 0.1% Eye Drops in children aged under 3 years has not been established. No data are available.

Use in hepatic and renal impairment

Olopatadine in the form of eye drops has not been studied in patients with renal or hepatic disease. However, no dosage adjustment is expected to be necessary in hepatic or renal impairment.

In case of concomitant therapy with other topical ocular medicines, an interval of five minutes should be allowed between successive applications. Eye ointments should be administered last.

CONTRAINDICATIONS

Olopatadine hydrochloride ophthalmic solution 0.1% is contraindicated in persons with a known hypersensitivity to olopatadine hydrochloride or any components of the drug.

WARNINGS AND PRECAUTIONS

Olopatadine hydrochloride ophthalmic solution 0.1% is for topical use only and not for injection or oral use.
IF2 contains benzalkonium chloride which may cause eye irritation.
Benzalkonium chloride has also been reported to cause punctate keratopathy and/or toxic ulcerative keratopathy. Close monitoring is required with frequent or prolonged use in dry eye patients, or in conditions where the cornea is compromised.
Olopatadine hydrochloride ophthalmic solution 0.1% is an antiallergic/antihistaminic agent and, although administered topically, is absorbed systemically. If signs of serious reactions or hypersensitivity occur, discontinue the use of this treatment.

Drug Interactions

No interaction studies with other medicinal products have been performed.

Pregnancy

Pregnancy Category C

There are no adequate and well-controlled studies in pregnant women. Olopatadine is not recommended during pregnancy and in women of childbearing potential not using contraception. This drug should be used in pregnant women only if the potential benefit to the mother justifies the potential risk to the embryo or fetus.

Lactation

Olopatadine has been identified in the milk of nursing rats following oral administration. It is not known whether topical ocular administration could result in sufficient systemic absorption to produce detectable quantities in the human breast milk. Nevertheless, caution should be exercised when olopatadine hydrochloride ophthalmic solution 0.1% is administered to a nursing mother.
Olopatadine hydrochloride ophthalmic solution 0.1% should not be used during breast-feeding.

Pediatric Use

Safety and effectiveness in pediatric patients below the age of 3 years have not been established.

Geriatric Use

No overall differences in safety or effectiveness have been observed between elderly and younger patients.

UNDESIRABLE EFFECTS

Headaches have been reported at an incidence of 7%. The following adverse experiences have been reported in less than 5% of patients: asthenia, blurred vision, burning or stinging, cold syndrome, dry eye, foreign body sensation, hyperemia, hypersensitivity, keratitis, lid

edema, nausea, pharyngitis, pruritus, rhinitis, sinusitis, and taste perversion. Some of these events were similar to the underlying disease being studied.
In clinical studies involving 1680 patients, olopatadine hydrochloride ophthalmic solution 0.1% was administered one to four times daily in both eyes for up to four months as monotherapy or adjunctive therapy to loratadine 10 mg. Approximately 4.5% of patients can be expected to experience undesirable effects associated with the use of olopatadine hydrochloride ophthalmic solution 0.1%; however, only 1.6% of patients discontinued from the clinical studies due to these undesirable effects. No serious ophthalmic or systemic undesirable effects related to olopatadine hydrochloride ophthalmic solution 0.1% were reported in clinical studies. The most frequent treatment-related undesirable effect was eye pain, reported at an overall incidence of 0.7%.
The following undesirable effects were assessed to be treatment-related and are classified according to the following convention: very common (1/10), common (>1/100 to <1/10), uncommon (>1/1,000 to 1/100), rare (>1/10,000 to 1/1000), or very rare (1/10,000). Within each frequency grouping, undesirable effects are presented in decreasing order of seriousness.

System Organ Classification	Frequency	Adverse Reactions
Infections and infestations	Uncommon	rhinitis
Immune system disorders	Not known	hypersensitivity, swelling face
Nervous system disorders	Common	headache, dysgeusia
	Uncommon	dizziness, hypoesthesia
	Not known	somnolence
Eye disorders	Common	eye pain, eye irritation, dry eye, abnormal sensation in eyes
	Uncommon	corneal erosion, corneal epithelium defect, keratitis, discharge, acuity discomfort, conjunctival eyes, eyelid, corneal epithelium disorder, punctate keratitis, corneal staining, eye photophobia, vision blurred, visual reduced, blepharospasm, ocular eye pruritus, conjunctival follicles, disorder, foreign body sensation in lacrimation increased, erythema of eyelid oedema, eyelid disorder, ocular hyperaemia
	Not known	corneal oedema, eye oedema, eye swelling, disturbance, conjunctivitis, mydriasis, visual eyelid margin crusting
Respiratory, thoracic, and mediastinal disorders	Common	nasal dryness
	Not known	dyspnoea, sinusitis
Gastrointestinal disorders	Not known	nausea, vomiting,
Skin and subcutaneous skin tissue disorders	Uncommon	dermatitis contact, skin burning sensation, dry
	Not known	dermatitis, erythema
General disorders and administration site conditions	Common	fatigue
	Not known	asthenia, malaise

Cases of corneal calcification have been reported very rarely in association with the use of phosphate containing eye drops in some patients with significantly damaged cornea.

If you experience any side effects, talk to your doctor or pharmacist or write to **drugsafety@cipla.com**. You can also report side effects directly via the national pharmacovigilance program of India by calling on **1800 180 3024**. By reporting side effects, you can help provide more information on the safety of this product.

OVERDOSAGE
No data are available in humans regarding overdose by accidental or deliberate ingestion. Olopatadine has a low order of acute toxicity in animals. Accidental ingestion of the entire contents of a bottle of olopatadine hydrochloride ophthalmic solution 0.1% would deliver a maximum systemic exposure of 5 mg olopatadine. This exposure would result in a final dose of 0.5 mg/kg in a 10 kg infant, assuming 100% absorption.
Prolongation of the QTc interval in dogs was observed only at exposures considered sufficiently in excess of the maximum human exposure indicating little relevance to clinical use. A 5 mg oral dose was administered twice-daily for 2.5 days to 102 young and elderly male and female healthy volunteers with no significant prolongation of QTc interval compared to placebo. The range of peak steady-state olopatadine plasma concentrations (35 to 127 ng/ml) seen in this study represents at least a 70-fold safety margin for topical olopatadine with respect to effects on cardiac repolarisation.
In the case of overdose, appropriate monitoring and management of the patient should be implemented.

INCOMPATIBILITY
Not applicable

SHELF-LIFE: See on pack

STORAGE AND HANDLING INSTRUCTIONS
Store in a cool dark place, below 25°C. Protected from moisture.

PACKAGING INFORMATION
IF2 Eye Drops: Vial of 5 ml

Last updated: *June2018*
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INFORMATION FOR PATIENTS

To prevent contaminating the dropper tip and solution, care should be taken not to touch the eyelids or surrounding areas with the dropper tip of the bottle. Keep bottle tightly closed when not in use.

Patients should be advised not to wear a contact lens if their eye is red. Olopatadine hydrochloride ophthalmic solution 0.1% should not be used to treat contact lens-related irritation. The preservative in Olopatadine hydrochloride ophthalmic solution 0.1%, benzalkonium chloride, may be absorbed by soft contact lenses. Patients who wear soft contact lenses and whose eyes are not red should be instructed to wait at least ten minutes after instilling olopatadine hydrochloride ophthalmic solution 0.1% before they insert their contact lenses.
In case of concomitant therapy with other topical ocular medicines, an interval of five to ten minutes should be allowed between successive applications.
As with any eye drop, temporary blurred vision or other visual disturbances may affect the ability to drive or use machines. If blurred vision occurs at instillation, the patient must wait until the vision clears before driving or using machinery.

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