SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of the medicinal product

CYCLOGYL* 1 % sterile ophthalmic solution

2. Qualitative and quantitative composition

1 ml of solution contains 10 mg cyclopentolate hydrochloride.

Preservative: 1 ml of solution contains 0.1 mg benzalkonium chloride.

For the full list of excipients, see section 6.1.

3. Pharmaceutical form

Sterile ophthalmic solution.

Clear, colourless to pale yellow solution.

4. Clinical particulars

4.1 Therapeutic indications

CYCLOGYL* ophthalmic solution contains cyclopentolate hydrochloride, an anticholinergic agent. CYCLOGYL ophthalmic solution is used to produce mydriasis and cycloplegia.

4.2 Posology and method of administration

Posology

Use in adults (including elderly)

Instil 1 or 2 drops in the eye, which may be repeated in 5 to 10 minutes if necessary.

Complete recovery usually occurs in 24 hours. Complete recovery from mydriasis in some individuals may require several days.

Use in children

Instil 1 or 2 drops in the eye, which may be repeated in 5 to 10 minutes if necessary.

Use in small infants

CYCLOGYL 1 % ophthalmic solution should not be used in small infants as concentrations greater than 0.5 % are not recommended due to the risk of serious systemic side effects (see section 4.4, section 4.8 and section 4.9).

Use in patients with hepatic or renal impairment

The safety and efficacy of CYCLOGYL ophthalmic solution in patients with hepatic and renal impairment have not been established.

Method of administration

For ocular use.

After cap is removed, if tamper evident snap collar is loose, remove before using product.

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

Nasolacrimal occlusion or gently closing the eyelid for 2 to 3 minutes after administration is recommended. This may reduce the systemic absorption of medicinal products administered via the ocular route and result in a decrease in systemic adverse reactions.

If more than one topical ophthalmic product is being used, the products must be administered at least

5 minutes apart. Eye ointments should be administered last.

4.3 Contraindications

• Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

• Known or suspected or untreated angle - closure glaucoma or untreated anatomically narrow angles.

4.4 Special warnings and precautions for use

• For topical ocular use only. Not for injection.

• Use with caution in patients, especially children, who have previously had a severe systemic reaction to atropine.

• CYCLOGYL ophthalmic solution may cause increased intraocular pressure. The possibility of undiagnosed glaucoma should be considered in some patients, such as elderly patients. Determine the intraocular pressure and an estimation of the depth of the angle of the anterior chamber prior to initiation of therapy to avoid glaucoma attacks (see section 4.8).

• Cyclopentolate - induced psychotic reactions and behavioural disturbances and other central nervous system disturbances may occur in patients with increased susceptibility to anticholinergic drugs (see section 4.8). Use with caution in children and elderly patients, but reactions may occur at any age.

• Because of risk of provoking hyperthermia, use with caution in patients, especially children, who may be exposed to elevated environmental temperatures or who are febrile.

• Patients may experience sensitivity to light and should protect eyes in bright illumination during dilation (see section 4.8).

• CYCLOGYL ophthalmic solution contains benzalkonium chloride, which may cause eye irritation and is known to discolour soft contact lenses. Avoid contact with soft contact lenses. Patients must be instructed to remove contact lenses prior to application of CYCLOGYL ophthalmic solution and wait 15 minutes before reinsertion.

• **Paediatric population:**

– Use with extreme caution, if at all, in infants, small or premature children, or in children with Down syndrome, spastic paralysis or brain damage (see section 4.2).

– Premature and small infants, young children, or children with Down syndrome, spastic paralysis or brain damage are particularly susceptible to central nervous system disturbances, cardiopulmonary and gastrointestinal toxicity from systemic absorption of cyclopentolate (see section 4.8).

– Seizures and acute psychosis induced by cyclopentolate are especially prominent in children (see section 4.8). CYCLOGYL ophthalmic solution should be used with caution in children with known epilepsy.

– Fair - skinned children with blue eyes may exhibit an increased response and / or increased susceptibility to adverse reactions.

– Observe infants closely for at least 30 minutes following instillation.

– Feeding intolerance may follow ophthalmic use of this product in infants (see section 4.8). It is recommended that feeding be withheld for 4 hours after examination.

– Parents should be warned not to get this preparation in their children's mouth or cheeks and to wash their hands and the child's hands or cheeks following administration.

4.5 Interaction with other medicinal products and other forms of interaction

• The effects of CYCLOGYL ophthalmic solution may be enhanced by concomitant use of other drugs having antimuscarinic properties, such as amantadine, some antihistamines, phenothiazine antipsychotics and tricyclic antidepressants.

• CYCLOGYL ophthalmic solution may interfere with the ocular anti - hypertensive action of carbachol, pilocarpine or ophthalmic cholinesterase inhibitors.

4.6 Fertility, pregnancy and lactation

Pregnancy

There are no or limited amount of data from the use of CYCLOGYL ophthalmic solution in pregnant women.

Animal reproduction studies have not been conducted with cyclopentolate.

CYCLOGYL ophthalmic solution is not recommended during pregnancy.

Breast-feeding

It is not known whether cyclopentolate or its metabolites are excreted into human milk. A risk to the suckling child cannot be excluded.

A decision must be made whether to discontinue breast - feeding or to discontinue / abstain from CYCLOGYL ophthalmic solution therapy taking into account the benefit of breast - feeding for the child and the benefit of therapy for the woman.

Fertility

Studies have not been performed to evaluate the effects of topical ocular administration of cyclopentolate on fertility.

4.7 Effects on ability to drive and use machines

CYCLOGYL* ophthalmic solution has a major influence on the ability to drive and use machines. CYCLOGYL ophthalmic solution may cause drowsiness, blurred vision and sensitivity to light. Patients receiving CYCLOGYL ophthalmic solution should be advised not to drive or engage in other hazardous activities while pupils are dilated and unless vision is clear.

4.8 Undesirable effects

The following adverse reactions have been identified from post - marketing surveillance following administration of CYCLOGYL ophthalmic solution. Frequency cannot be estimated from the available data. Within each System Organ Class, adverse reactions are presented in order of decreasing seriousness.

System Organ Class	**Adverse reactions**
Immune system disorders	hypersensitivity
Psychiatric disorders	hallucination, confusional state, disorientation, agitation, restlessness
Nervous system disorders	incoherent, retrograde amnesia, dizziness, headache, somnolence
Eye disorders	synechiae, punctate keratitis, increased intraocular pressure, photophobia, blepharoconjunctivitis, conjunctivitis, eye pain, drug effect prolonged (mydriasis), eye irritation, vision blurred, hyperaemia
Gastrointestinal disorders	vomiting, nausea, dry mouth
Skin and subcutaneous tissue disorders	erythema
General disorders and administration site conditions	gait disturbance, pyrexia, fatigue

Description of selected adverse reactions

This drug produces reactions similar to those of other anticholinergic drugs, but the central nervous system manifestations as noted below are more common. The central nervous system manifestations such as ataxia, incoherent speech, restlessness, hallucinations, hyperactivity,

seizures, disorientation as to time and place, and failure to recognize people are possible. Other toxic manifestations of anticholinergic drugs are skin rash, abdominal distension in infants, unusual drowsiness, tachycardia, hyperpyrexia, vasodilation, urinary retention, diminished gastrointestinal motility, and decreased secretion in salivary and sweat glands, pharynx, bronchi and nasal passages. Severe reactions are manifested by hypotension with rapid progressive respiratory depression, coma, medullary paralysis and death.

CYCLOGYL ophthalmic solution may increase intraocular pressure and provoke glaucoma attacks in patients predisposed to acute angle closure, in particular geriatric patients (see section 4.4).

The onset of cyclopentolate toxicity occurs within 20 to 30 minutes of drug instillation, and although usually transient (subsiding in 4 to 6 hours), the symptoms can last 12 to 24 hours.

Paediatric population

Increased risk for systemic toxicity has been observed in premature and small infants, young children, or children with Down syndrome, spastic paralysis or brain damage with this class of drug (see section 4.4).

Use of CYCLOGYL ophthalmic solution has been associated with psychotic reactions and behaviour changes in paediatric patients. Central nervous system reactions manifest similar to those listed above.

Seizures and acute psychosis induced by cyclopentolate are especially prominent in children.

Feeding intolerance may follow ophthalmic use of the product in infants (see section 4.4).

A local or generalized allergic - type response to cyclopentolate consisting of an urticarial rash has been described in children.

4.9 Overdose

An ocular overdose of CYCLOGYL ophthalmic solution may be flushed from the eye (s) with lukewarm water.

Excessive dosage may produce behavioural disturbances, tachycardia, hyperpyrexia, hypertension, elevated intraocular pressure, vasodilation, urinary retention, diminished gastrointestinal motility and decreased secretion in salivary and sweat glands, pharynx, bronchi and nasal passages.

Systemic toxicity may occur following topical use, particularly in children. It is manifested by flushing and dryness of the skin (a rash may be present in children), blurred vision, a rapid and irregular pulse, fever, abdominal distension in infants, convulsions and hallucinations and the loss of neuromuscular coordination. Severe intoxication is characterized by central nervous system depression, coma, circulatory and respiratory failure, and death.

Patients exhibiting signs of overdosage should receive symptomatic and supportive treatment and monitoring. In infants and small children the body surface must be kept moist.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: mydriatics and cycloplegics, anticholinergics. ATC code: S01FA04.

This anticholinergic preparation blocks the responses of the sphincter muscle of the iris and the accommodative muscle of the ciliary body to cholinergic stimulation, producing pupillary dilation (mydriasis) and paralysis of accommodation (cycloplegia).

It acts rapidly, but has a shorter duration than atropine. Maximal cycloplegia occurs within 25 to 75 minutes after instillation. Complete recovery of accommodation usually takes 6 to 24 hours.

Complete recovery from mydriasis in some individuals may require several days. Heavily pigmented irides may require more doses than lightly pigmented irides.

5.2 Pharmacokinetic properties

Systemic resorption may take place after topical administration to the eye. This resorption primarily occurs in the lacrimal ducts. In humans, cyclopentolate is rapidly absorbed systemically and peak plasma concentrations of 8.3 ± 4.1 ng / ml were reached in 10 ± 5 minutes after a single topical ocular administration of 2 drops of a 10 mg / ml cyclopentolate ophthalmic solution. Systemic concentrations of cyclopentolate decreased to 3.3 ± 1.1 ng / ml at 30 minutes after dosing. Mean elimination half - life of

cyclopentolate was 111 minutes. No additional information regarding the metabolic fate of cyclopentolate or its route and extent of elimination following systemic absorption is available.

5.3 Preclinical safety data

No significant ocular irritation or toxicity was observed in a one - day study in rabbits employing a high dosing regimen of a 2 % cyclopentolate hydrochloride solution.

There are no available data regarding the reproduction toxicity and the mutagenic potential of cyclopentolate in experimental animals. There are no indications that cyclopentolate possesses oncogenic potential in experimental animals.

Pregnancy Category C. Animal reproduction studies have not been conducted with cyclopentolate.

Studies in animals or humans have not been conducted to evaluate the carcinogenic potential of CYCLOGYL ophthalmic solution.

Preclinical data with higher doses do not lead to the suspicion of special risks, other than enhancing pharmacological effects.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Benzalkonium chloride, boric acid, disodium edetate, potassium chloride, sodium carbonate monohydrate and / or concentrated hydrochloric acid (to adjust pH), purified water.

6.2 Incompatibilities

Not applicable.

6.3 Special precautions for storage

Do not store above 30 °C.

Discard 4 weeks after first opening.

Keep this medicine out of the sight and reach of children.

6.4 Nature and contents of container

Plastic DROPTAINER* dispenser containing 15 ml.

6.5 Special precautions for disposal

No special requirements.

7. Manufactured by:

ALCON-COUVREUR

B-2870 Puurs (Belgium) for Novartis Pharma AG, Basel, Switzerland

8. Market authorization number

04498/06851/REN/2018

9. Date of authorization

May 23, 2019

10. Date of revision

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