

Clinical & Refractive Optometry is pleased to present this continuing education (CE) article by Dr. Ron Melton and Dr. Randall Thomas entitled **Allergic Conjunctivitis**. In order to obtain a 1-hour Council of Optometric Practitioner Education (COPE) approved CE credit, please refer to page 161 for complete instructions.

Allergic Conjunctivitis

Ron Melton, OD; Randall Thomas, OD

SUBJECTIVE

A 30-year-old female presents with a chief complaint of mild redness and itching to both eyes for a week (Fig. 1).

OBJECTIVE

- Left bulbar and tarsal conjunctival injection
- Minimal chemosis
- Mild mucus excess

ASSESSMENT

- Allergic conjunctivitis

PLAN

- Patanol (olopatadine 0.1%) ophthalmic solution to use b.i.d. OU for one month, then as needed b.i.d. OU for itch
- We usually give refill authorization to use if the patient needs it

Comments: Had her symptoms been “itching and burning,” it would be very important to quantify the history, i.e., “Which is the main symptom, itching or burning?” If it is itching, then the differential diagnosis leans towards allergy; however, if burning is the preponderant symptom, carefully evaluate for ocular surface dryness. The patient may well have opportunistic allergy secondary to the dry eye state.

GENERAL OBSERVATIONS

- Can be acute, seasonal, or chronic with the first two being the most common



Fig. 1 These mildly injected, mildly chemotic conjunctivae are classically seen in garden-variety seasonal allergic conjunctivitis.

- History of itching, especially in the nasal canthal areas is very common
- Clinical findings can include:
 - chemosis: bullous or flaccid/redundant. Usually mild, however, can be profound in acute allergic reactions and is known as “watch-glass chemosis”
 - conjunctival injection usually mild to moderate. Injection is usually grade 2 or less
 - lid erythema and edema is a commonly associated finding
 - discharge, if any, is a scant mucoid discharge
 - the cornea is not involved in allergic processes
- About one-third of patients who present with “ocular allergy” actually have a primary tear film dysfunction (dry eye), so be sure to first rule out primary tear deficiency in all patients with mild to moderate itching. Severe itching is almost always allergy
- Ocular allergy is usually bilateral. However, if the causative agent contacted only one side, then unilateral involvement is seen
- Always try to determine the etiologic agent
- Treatment is achieved with a wide array of topical pharmaceuticals. Common approaches are:

R. Melton, R. Thomas — Adjunct faculty members at the Pennsylvania, Pacific University and SUNY Colleges of Optometry; Consultants to the American Optometric Association and Fellows of the American Academy of Optometry; both are in clinical practice in North Carolina. Recipients of the Glaucoma Educators of the Year Award presented by the American Academy of Optometry.

- antihistamine: emedastine difumarate (Emadine)
 - antihistamine/mast cell stabilizers: ketotifen fumarate (Zaditen), olopatadine (Patanol), azelastine (Optivar), epinastine (Elestat)
 - antihistamine/decongestants: antazoline phosphate/naphazoline hydrochloride (Vasocon-A), naphazoline hydrochloride/pheniramine maleate (Naphcon-A), Visine-A
 - mast cell stabilizer: Alomide, Crolom, Opticrom, nedocromil sodium (Alocril), pemirolast potassium (Alamast)
 - nonsteroidal anti-inflammatory: ketorolac (Acular), diclofenac (Voltaren)
 - corticosteroids: loteprednol etabonate (Lotemax 0.5% or Alrex 0.2%)
- For most patients, the antihistamine/mast cell stabilizers work well and can be used b.i.d. for one week, then p.r.n. thereafter. The site-specific ester-based steroid loteprednol etabonate 0.2% is approved for the treatment of seasonal allergic conjunctivitis. Even with this approval, there is controversy about its long-term use. Recently, the

medical literature has been showing the safety of the ester-based Loteprednol over the ketone-based steroids for extended use.¹

- Remember, in any allergic/inflammatory condition, cold compresses help to vasoconstrict and stabilize the pathophysiologic response. At your discretion, supplement medical therapy with cold compresses when the presentation is acute and severe

REFERENCE

1. Ilyas H et al. "Long-Term Safety of Loteprednol Etabonate 0.2% In The Treatment of Seasonal And Perennial Allergic Conjunctivitis." Eye and Contact Lens. January 2004.

Disclaimer: Not every detail of every case is discussed, rather the key clinical findings are described. For example, if nothing is said about the corneal status, you should assume that the cornea is normal, etc. When vision is recorded, it should be assumed to be best corrected or pinholed. Regarding therapy, we show how we treated the particular case. Given that medicine is an art, as well as a science, therapy will — and often does — vary with each unique patient presentation depending on severity, known drug allergies, prior treatment, response to therapy, etc.



INSTRUCTIONS FOR CE CREDITS

In order to obtain a 1-hour COPE-approved CE credit, please follow these steps:

- Fill in the identification section and answer the 10 multiple choice questions in this CE credit application form
- Prepare a cheque for \$25.00 made out to Medicconcept
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Your answers will be sent for marking to the School of Optometry, University of Montreal, Quebec. If you score 70% or more, a COPE-approved CE Credit Certificate will be issued by the University of Montreal and *Clinical & Refractive Optometry* for your records and display in your office.

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QUESTIONNAIRE

Allergic Conjunctivitis

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1. Which of the following is a symptom of allergic conjunctivitis?
 - Itching
 - Mild redness
 - Itching in the nasal canthal areas
 - All of the above
2. Which one of the following statements is **FALSE**?
 - If the main symptom is itching, the differential diagnosis leans towards allergy
 - Ocular allergy is most often unilateral
 - If the main symptom is burning, the patient may have opportunistic allergy secondary to dry eye
 - Severe itching is almost always a sign of allergy
3. Clinical findings can include all of the following **EXCEPT**:
 - Impaired blinking reflex
 - Lid erythema
 - Scant mucoid discharge
 - Lid edema
4. In the Case Report, objective examination revealed:
 - Left bulbar and tarsal conjunctival injection
 - Mild mucus excess
 - Minimal chemosis
 - All of the above

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5. Which of these statements is **FALSE**? Conjunctival injection is usually:
 - Grade 1 or less
 - Grade 3
 - Grade 2 or less
 - Grade 1 or more

6. Which of the following was prescribed in this Case Report?
 - Patanol (olopatadine 0.1%) ophthalmic solution b.i.d. OU for one month
 - Patanol (olopatadine 0.1%) ophthalmic solution t.i.d. OU for one month
 - Patanol (olopatadine 0.1%) ophthalmic solution b.i.d. OU for two months
 - Optivar (azelastine 0.1%) ophthalmic solution b.i.d. OU for one month

7. Which of the following statements is **FALSE**?
 - About one-third of patients presenting with “ocular allergy” actually have a primary tear film dysfunction
 - The cornea is almost always involved in allergic processes
 - If the causative allergy agent contacted only one side, unilateral involvement is seen
 - Allergic conjunctivitis can be acute, seasonal, or chronic

8. Which one of the following treatments is **NOT** recommended for allergic conjunctivitis?
 - Antibiotic ointments
 - Antihistamine/mast cell stabilizers
 - Antihistamine/decongestants
 - Mast cell stabilizers

9. Which one of the following statements is **FALSE**?
 - Loteprednol etabonate (Lotemax 0.5% or Alrex 0.2%) are effective
 - Ketorolac (Acular) and diclofenac (Voltaren) are effective
 - Antihistamine/mast cell stabilizers can be used t.i.d. for one week
 - Loteprednol is preferable to ketone-based steroids for long-term use

10. Which one of the following statements is **FALSE**?
 - Cold compresses help to vasoconstrict and stabilize the pathophysiologic responses
 - Loteprednol etabonate is ester-based
 - Pemirolast potassium (Alamast) has been shown to be effective
 - Loteprednol etabonate is not site-specific