

*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

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### 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:

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- 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.<sup>1</sup>

- 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.