Symptoms commonly associated with ocular allergy are responsible for a substantial and growing number of office visits to eye care professionals in the United States. Estimates suggest that more than 20% of the US population suffers from seasonal allergic conjunctivitis, the most prevalent form of ocular allergy. A growing body of literature also suggests that allergic conjunctivitis significantly affects patients’ quality of life. Indeed, red, itching, and/or burning eyes are the most common presenting complaints in my practice. The diagnostic challenges posed by this nonspecific symptomatology require clinicians’ familiarity with the pathophysiology of each ocular surface disease and underscore his or her important role in determining appropriate therapy. This is particularly true given some changes in the choices for treatment, with a newly introduced prescription agent and a rising number of over-the-counter (OTC) medicines.

Eye care practitioners can better manage the treatment protocols for allergic conjunctivitis through an improved understanding of the ocular and nonocular symptoms and signs related to allergic conjunctivitis, a comprehensive knowledge of dry eye syndrome and meibomian gland dysfunction/blepharitis with their attendant ocular surface symptoms, and an appreciation of the patient’s role in and perceptions about therapy.

AN APPRECIATION OF COMPLEXITY

Ocular allergic disease represents a spectrum of symptoms ranging from the mild bilateral itching and redness typical of seasonal allergic conjunctivitis—the focus of this article—to the much more severe and potentially sight-threatening problems associated with chronic conditions such as atopic keratoconjunctivitis and vernal keratoconjunctivitis. Initially, the differential diagnosis of ocular allergy must take into account any noninfectious or infectious condition that produces redness, itching, burning, and tearing. Approximately 35% of patients who are referred with these nonspecific complaints receive a diagnosis of allergic conjunctivitis, meaning that the majority of patients are diagnosed with some other ocular surface disease.

Seasonal allergic conjunctivitis is the most common form of ocular allergic disease. Affected patients present with the acute onset of red, itchy eyes associated with tearing and burning. The reaction is usually bilateral, although occasionally a unilateral response may occur after hand-to-eye contact with an allergen such as cat dander. The eyelids are usually edematous and erythematous. The conjunctiva has mild-to-moderate chemosis, oftentimes associated with ropiness, mucous discharge in the tear film. An examination of the upper and lower eyelids shows mild injection of the tarsal conjunctiva, whereas the cornea is rarely involved. In general, the ocular reaction resolves once the inciting allergen is removed. Commonly, patients have associated symptoms of allergic rhinitis: a runny nose, itching of the soft palate of the mouth, and sneezing. Approximately 70% of patients have associated atopic findings such as asthma and atopic dermatitis.

My colleagues and I often evaluate patients who were previously diagnosed with ocular allergy but who actually are suffering from keratoconjunctivitis sicca/dry eye syndrome or meibomian gland dysfunction/blepharitis. These diseases may occur as a single entity or concurrently, and symptoms of keratoconjunctivitis sicca/dry eye syndrome are often compounded by additional atopic diseases like atopic dermatitis.
eye syndrome or meibomian gland dysfunction/blepharitis may mimic or mask those of allergic conjunctivitis. Furthermore, the treatment of allergic conjunctivitis can exacerbate dry eye syndrome, thus complicating the correct diagnosis and the selection of appropriate therapy.

Making a diagnosis of ocular allergy often has as much to do with the questions that the clinician asks patients as with the presenting symptoms and signs. In particular, confirming that the patient’s signs and symptoms coincide with the local environmental allergens and are consistent with his or her other systemic allergy symptoms is important. Ocular symptoms should be considered as a component of a broader allergic reaction involving nasal-respiratory symptoms. Hence, it is important to determine if the patient has self-medicated for nasal congestion or other complaints. In selecting a therapeutic approach, it is always helpful to think of ocular allergy as part of a broader syndrome, “rhinoconjunctivitis.”

NEW CHOICES FOR TREATMENT

Currently, the spectrum of therapeutic options available to treat ocular allergy consists of nonprescription and prescription therapies. The former uses cold compresses, artificial tears, and OTC vasoconstrictor-antihistamine preparations. The latter consists of antihistamine-mast cell stabilizers, nonsteroidal anti-inflammatory drugs, mast cell stabilizers, and ophthalmic steroids (see Therapeutic Strategies for Seasonal/Perennial Allergic Conjunctivitis).

During the last several years, only two prescription ocular allergy products have been introduced, both agents belonging to the antihistamine-mast cell stabilizer class of drugs. They are the once-a-day formulation of olopatadine 0.2% ophthalmic solution (Pataday; Alcon Laboratories, Inc., Fort Worth, TX) and bepotastine besilate 1.5% ophthalmic solution (Bepreve; Ista Pharmaceuticals, Inc., Irvine, CA).

Pataday has been a useful addition to my armamentarium for the treatment of allergic conjunctivitis in adults and children 3 years of age and older. The results from clinical trials of up to 12 weeks’ duration demonstrate that this agent effectively relieves ocular itching with once-daily use. In one study, Pataday was significantly more effective than placebo at reducing ocular itching at all time points at both the onset of action and the 16-hour allergen challenge. The drop was also significantly more effective than placebo at reducing ocular itching at all time points. Also of interest was the observation that Bepreve provided statistically significant reductions in the Composite Symptom score, incorporating nasal congestion, rhinorrhea, ear/palate itching, and nasal itching.

Bepreve had a comfort profile comparable to placebo in these studies. Although bepotastine is a new chemical entity in the United States, it has a long track record of safety as an oral medication (Talion; Mitsubishi Tanabe Pharma Corporation, Osaka, Japan) in Japan, where more than 850 million doses have been given since 2000 with no drug-related serious adverse events reported.
My experience with both Pataday and Bepreve in patients diagnosed with allergic conjunctivitis mirrors the findings of their respective FDA clinical trials: a rapid onset of relief of ocular symptoms with sustained duration of effect and, in the case of Bepreve, improvement in nonocular symptoms as well. At my office, patients who prefer the convenience of once-daily therapy receive Pataday, and those who have concomitant rhinitis receive twice-daily therapy with Bepreve. My colleagues and I try to have new patients instill their first dose in the office before the end of their visit, and they usually achieve notable symptomatic relief before they leave. Because many of these patients come to us only after being frustrated with other therapeutic options, our ability to give them a medication that works quickly is gratifying.

FRESH CHALLENGES

An important ongoing change is that several of the existing treatment options for allergic conjunctivitis now have OTC status. With the transition of ketotifen fumarate 0.025% ophthalmic solution (Zaditor; Novartis Pharmaceuticals Corporation, East Hanover, NJ) in late 2006, patients became able to purchase an effective combination antihistamine-mast cell stabilizer at their local pharmacy. This change was followed by OTC ketotifen eye drops under the brand names of Alaway (Bausch + Lomb, Rochester, NY), Claritin (Schering-Plough Corporation, Kenilworth, NJ), and Zyrtec (McNeil Consumer Healthcare, Fort Washington, PA).

A confusing array of older agents, ophthalmic decongestants, and artificial tear products—not to mention oral agents—confronts the buyer at the OTC shelf. This reality can affect clinicians’ management of patients with ocular allergy in two important ways. First, in the interest of controlling the cost of medications by shifting them from drug benefits to patients’ pocketbooks, health plans have become more aggressive in mandating “stepped” therapy. This ruling requires that a patient must fail treatment with OTC remedies before he or she may be compensated for preordered products (beginning with generics), regardless of a physician’s clinical judgment regarding the best course of therapy. Whether the patient is already self-medicating or being encouraged to go to the OTC shelf by the health insurance carrier or pharmacy benefit management companies, eye care practitioners stand an increasing chance of losing their patient to follow-up or never seeing him or her in the first place.

Second, as described earlier, the diagnosis and management of ocular allergy can be challenging. The optimal care of a patient relies on the practitioner’s ability to sort through the differential diagnosis, accurately identify any systemic issues, manage comorbidities successfully, and make appropriate therapeutic recommendations. As in many other therapeutic areas, clinicians must play the role of advocate for patients with ocular allergy to ensure they get the treatment that will provide them the most benefit.

CONCLUSION

Beyond the introduction of Pataday and Bepreve to the treatment armamentarium for allergic conjunctivitis, no notable additions are on the horizon. The management of this common disease continues to improve, however, as clinicians’ knowledge of the complex interrelationships between ocular surface conditions advances and their patient-care strategies evolve in response to changes in reimbursement patterns. What is new in ocular allergy is being driven as much by innovation in eye care practices as invention in the laboratory.

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15. Maçojko TT, Meier E, Bergman ME, et al. Bepotastine besilate ophthalmic solution 1.5% for up to 8 hours following dosing reduces total non-ocular symptoms, redness, and tearing in a multicenter clinical model of allergic conjunctivitis. Poster presented at 2009 American Academy of Allergy Asthma and Immunology (AAAAI) Annual Meeting; March 3-7, 2009; Washington, DC.