Allergic conjunctivitis is an acute or subacute reaction that occurs when the ocular surface is exposed to environmental allergens. This response occurs due to a type 1 hypersensitivity reaction mediated by immunoglobulin E antibodies bound to mast cells, which causes the release of histamine and prostaglandins, ultimately resulting in vasodilation. Commonly occurring symptoms include itchiness, redness and swelling of the conjunctiva, tearing, and lid edema. Allergic conjunctivitis can also be associated with symptoms of rhinitis and asthma with varying degrees of severity. The approach to treatment often involves over-the-counter medications as well as prescription drugs.

MANAGEMENT
Begin With A Stepwise Approach

The management of individuals who present with allergic conjunctivitis depends on the severity of their condition. The initial step is for patients to remove and/or avoid allergens and irritants in their daily environment. Contact lens wearers will benefit from temporarily discontinuing or reducing their wearing time. Cold compresses and preservative-free artificial tears (eg, Systane Preservative-Free [Alcon Laboratories, Inc.]; Refresh Optive Sensitive [Allergan, Inc.]; Preservative-Free TheraTears [Akorn, Incorporated]; and Blink Tears PF [Abbott Medical Optics Inc.]) aid in flushing allergens from the ocular surface and calm irritated eyes. These drops can be used as often as needed, and when refrigerated, are soothing and comforting.

Additional Symptoms

For patients with more severe symptoms who require relief and improvement of signs and symptoms of allergic conjunctivitis, we recommend a topical anti-histamine/mast cell stabilizer. Olopatadine HCl 0.2% (Pataday, Alcon Laboratories, Inc); bepotastine besilate 1.5% (Bepreve, Bausch + Lomb); and epinastine HCl 0.05% (Elestat, Allergan, Inc.) are commonly used for ocular itch. Bepotastine and epinastine are indicated for twice-daily instillation, and olopatadine is to be used once daily. Alcaftadine ophthalmic solution 0.25% (Lastacaft, Allergan, Inc.), approved for use in the United States in 2010, is the newest allergic conjunctivitis drug in this class. This H1 histamine receptor antagonist inhibits the release of histamine from mast cells. It is rated pregnancy category B and can be used in patients as young as 2 years of age. It only requires a once-daily dosing and has been found to work as quickly as 3 minutes after instillation and last up to 16 hours after instillation. The most common ocular side effects with this class of drugs include irritation, burning/stinging upon instillation, and eye redness. It is worthwhile
to note that seasonal treatment with these agents may be necessary in those patients with seasonal or chronic allergies.

**Moderate to Severe Symptoms**

For patients with moderate to severe allergic conjunctivitis, short-term use of topical corticosteroids is added to the regimen. Corticosteroids inhibit the inflammatory response, primarily prostaglandin production, through several mechanisms.¹ Fluorometholone 0.1% ophthalmic suspension (FML, Allergan, Inc.) and ointment, loteprednol etabonate 0.5%, ophthalmic suspension (Lotemax, Bausch + Lomb) and ointment, and loteprednol etabonate 0.2% (Alrex, Bausch + Lomb) can be used as a short-term soft steroid to treat inflammation associated with allergic conjunctivitis. Loteprednol etabonate 0.5% gel is a new addition to topical corticosteroids and is a first-in-class gel drop. The gel, approved in late 2012, adheres to the ocular surface as a liquid therefore minimizing drop-induced blurred vision. The gel also contains approximately 70% less preservative than Lotemax suspension and two moisturizers to help soothe the eye. Continued use of any steroid drop can cause side effects such as increased intraocular pressure, cataract formation, and delayed healing and patients should be closely monitored.⁴

**RHINITIS AND DERMATOLOGICAL INVOLVEMENT**

Cases of allergic conjunctivitis coupled with rhinitis and/or dermatological involvement may necessitate the use of oral antihistamines. Clarinex (Merck & Co., Inc.); Alavert (Pfizer Inc.); and Xyzal (UCB SA.) are the newest in the class approved for allergic rhinitis. These medications work as H1 receptor blockers to inhibit the symptoms associated with allergic rhinitis. Because they are second- and third-generation antihistamines, the anticholinergic effects that contribute to the feeling of dryness and dry eye symptoms are often not exhibited as compared with first-generation antihistamines like Benadryl (McNeil Consumer Healthcare); ChlorTrimeton (Schering Plough); or Vistaril (Pfizer Inc.). The anticholinergic effects associated with first generation antihistamines are also responsible for decreased tear production, and use of second and third generation antihistamines may create less of a drying effect. Although recent studies have shown that topical treatment of allergic rhinoconjunctivitis improves patients’ nasal symptoms, oral antihistamines are reserved for more severe cases of rhinoconjunctivitis.⁵

Nasal sprays/corticosteroids can effectively relieve symptoms of allergic conjunctivitis. Omnaris (Nycomed US Inc.) and Veramyst (GlaxoSmithKline) are the newest of this class and are approved for intranasal treatment of allergic rhinitis. These nasal corticosteroids act with a potent antiinflammatory activity with a wide range of actions. Adverse effects of dry eye symptoms have been rarely reported with use of nasal corticosteroids.

**SUMMARY**

Allergic conjunctivitis can manifest in varying degrees. Our role as clinicians is to control the bothersome symptoms that patients experience. The challenge lies in selecting the right treatment method with so many options at our disposal. Simplifying the approach in a stepwise fashion allows for the best treatment with the least invasive therapy. Managing care and consulting with an allergist or primary care physician is also recommended when the patient is suffering from more than just eye-related symptoms.

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