CASE 2 in a Series of 4

LEARNING METHOD AND MEDIUM
This educational activity consists of a case report and four (4) study questions. The participant should, in order, read the learning objectives contained at the beginning of this activity, read the material, answer all questions in the post test, and complete the Activity Evaluation/Credit Request form. To receive credit for this activity, please follow the instructions provided on the post test and Activity Evaluation/Credit Request form. This educational activity should take a minimum of 0.75 hour to complete.

CONTENT SOURCE
This continuing medical education (CME) activity captures content from a roundtable discussion held August 2013.

ACTIVITY DESCRIPTION
Eye care practitioners face multiple challenges in diagnosing allergic conjunctivitis (AC) and achieving patient satisfaction with treatment. Studies show that AC is often underdiagnosed and often not optimally treated. Recently, a group of experts convened to discuss their insights and approaches for managing patients with AC. This CME activity brings you highlights from these case discussions in a 4-part series.

TARGET AUDIENCE
This educational activity is intended for ophthalmologists.

LEARNING OBJECTIVES
Upon completion of this activity, ophthalmologists will be better able to:

1. Conduct a thorough differential diagnosis to identify allergic conjunctivitis and any comorbid conditions
2. Choose appropriate medications based on disease severity to effectively control the early-phase and late-phase responses of ocular allergy
3. Choose appropriate medications to provide effective maintenance control of ocular allergy
4. Counsel patients on preemptive strategies and the role of pharmacologic and nonpharmacologic interventions for allergy control
5. Collaborate with colleagues in other specialty areas to optimize the management of the patient with ocular allergy

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CASE 2

Introduction
Seasonal allergic conjunctivitis (SAC) is the most common form of allergic eye disease and its incidence is on the increase, along with associated conditions, including conjunctivochalasis. It also may be associated with other ocular issues, such as contact lens intolerance, which may be the primary reason some patients with SAC seek ophthalmic care. Patients with SAC may have comorbid sinus and nasal disease as well. This roundtable discussion highlights the importance of a multidisciplinary approach to the evaluation and management of patients with uncontrolled ocular allergy as well as the importance of adequate preparation for ophthalmic surgery in these patients.

Dr Sheppard: This 34-year-old white female is a patent attorney who presents with recurrent seasonal conjunctivitis, rhinitis, and sinusitis. She reports having chronic headaches, postnasal discharge, and a history of nasal polyps, and she complains of persistent ocular foreign body sensation and dryness. She is using contact lenses to correct myopic astigmatism, but is struggling with contact lens intolerance and is interested in LASIK (laser-assisted in situ keratomileusis) because she wants to be glasses-free.

Her ophthalmic examination reveals the following:
• Refraction OD −4.26 + 1.50 x 90, OS −5.00 + 2.00 x 80
• Best Corrected Visual Acuity 20/20OU
• 1+ inferior punctate epithelial keratopathy OU
• 2+ inferior temporal conjunctivochalasis with overlying 2+ lissamine staining OU

This patient requires multidisciplinary care. She has ocular surface disease that is making her contact lens wear intolerable, and the diagnostic evaluation indicates that ocular allergy, rather than aqueous-deficient or evaporative dry eye, is the cause. Chronic allergy also likely underlies her conjunctivochalasis and sinus issues, while at least contributing to her nasal polyps.

Dr Parekh, what are your thoughts about initial management for this patient?

Dr Parekh: I see patients such as the one described in my office frequently during the spring and fall allergy seasons in northern New Jersey; they can be challenging to treat. Although this patient sought ophthalmic care because she wants refractive surgery, she needs medical care to restore her ocular surface and control her allergic disease before surgery can be considered.

Dr Sheppard: What is your agent of choice for managing an acute exacerbation in patients with recurrent SAC?

Dr Parekh: I use an ophthalmic dual-acting antihistamine/mast cell stabilizer. Ketotifen, .025%, is now available over-the-counter, and there are several prescription products from which to choose. I think a more frequent administration is helpful for maintaining 24-hour control of allergic symptoms, considering that patients may be exposed to allergens throughout the day and into the evening, and so I usually recommend an agent for twice-daily use. Alcaftadine or olopatadine, 0.2%, are indicated for once-daily administration, but bepotastine is recommend for twice-daily use, so I will often suggest patients use the latter agent because it is labeled for more frequent administration. A particularly important consideration in this patient who has ocular surface disease and is likely using oral antihistamines to control her allergic symptoms is to avoid ocular drying. The ophthalmic antihistamines, alcaftadine and bepotastine, are good choices because they have high H1 receptor specificity and low muscarinic activity. 1

Because the conjunctival injection, neovascularization, and conjunctivochalasis in this patient are signs of more severe inflammation, I would also start treatment with a topical corticosteroid. She needs something that is more potent than fluorometholone, and because the corticosteroid would have to be used for several weeks, I would choose loteprednol etabonate because it is less likely to increase intraocular pressure than other potent topical corticosteroids. 2 While the 0.2% formulation of loteprednol etabonate is specifically indicated for treatment of SAC, given the severity of this patient’s presentation, I feel she needs to use loteprednol, 0.5%. Considering the condition of her ocular surface, the gel—rather than the suspension—formulation would be desirable, in order to provide a more physiologic pH and demulcients while minimizing the effects of preservatives. 3

When there is eyelid disease, I like to use an ointment. There are only 2 corticosteroid ointments available—fluorometholone and loteprednol. Other corticosteroid ointments are combination products containing an antibiotic and are not appropriate for management of allergic disease. Fluorometholone ointment is less costly than loteprednol ointment, but may not be potent enough to treat moderate or more severe inflammation.

This patient also needs to be seen by an allergist to address her nasal and sinus conditions.
Dr Sheppard: Dr Joly, do you have any concerns about short-term or long-term use of a topical steroid ointment on the eyelids?

Dr Joly: In general, we want to limit cumulative steroid use from all routes of administration, but I think that the amount of systemic exposure from topical application to the lid is relatively small while the benefit patients derive is tremendous. An ointment formulation is very helpful on the eyelid skin because it adheres to the tissue and therefore enables penetration of the active ingredient. In addition, an ointment provides a physical barrier to protect the keratinized epithelium against irritation from the slightly acidic tears.

From an oculoplastic surgery perspective, my focus in this patient would be on the management of her conjunctivochalasis. Inflammation can lead to the development of conjunctivochalasis and then can be perpetuated by it. In order to break that vicious cycle, this patient would benefit from undergoing surgery for her conjunctivochalasis, but only after the acute conjunctivitis has been brought under control.

Dr Sheppard: What would be your surgical approach?

Dr Joly: Simple excision is probably all that is needed in this patient, who has just slight redundancy of her temporal conjunctival tissue. The incision will be well protected, and as a result of the wound healing process, the conjunctiva will adhere well to the underlying sclera.

Dr Parekh: We should also give some attention to the risk factors for conjunctivochalasis, namely, older age, contact lens wear, and autoimmune thyroid disease. As this patient is relatively young, I would particularly consider thyroid disease and order a thyroid function test.

In the past, I have usually addressed symptomatic and chronic conjunctivochalasis with a simple cut-down. I have also used silver nitrate as well as cautery. More recently, I have been using the dehydrated amniotic membrane allograft as an overlay to bare sclera after the cut-down.

I think conjunctivochalasis is being underdiagnosed as a cause of foreign body sensation because clinicians fail to look for it.

Dr Sheppard: I tell patients their eyeball needs a “facelift” and I refer them to the oculoplastic surgeon.

If you look at the prevalence of allergy in the general population, it is increasing logarithmically. We are also seeing an increase in conjunctivochalasis. Dr Blaiss, do you think allergy is a contributor?

Dr Blaiss: Yes. Over the past 20 to 30 years in the United States and most developed countries, the incidence of ocular and systemic allergic disorders has been increasing. The phenomenon may be explained by multiple factors. One prominent theory is the “hygiene hypothesis”, which proposes that a lack of exposure to infectious agents and endotoxins in early life interferes with the natural development of the immune system from a TH2-based tendency to a TH1-based response. Climate change also may be playing a role by increasing pollen levels, the allergen content of pollen, and the duration of the pollen seasons. Numerous studies have also suggested that vitamin D insufficiency and reduced infant breastfeeding in the population are associated with an increased risk of allergy.

Dr Sheppard: Dr Joly, should the eye care provider be examining the nasal mucosa in patients with recurrent or chronic allergic conjunctivitis?
Dr Joly: The condition of the nasal mucosa is something all comprehensive ophthalmologists should be concerned with when treating patients with allergy and epiphora because there are definite associations between rhinitis, ocular allergy, and the lacrimal drainage system. Ophthalmologists who are uncomfortable performing a nasal examination should refer patients to an oculoplastic surgeon, otolaryngologist, or allergist.

Dr Sheppard: In summary, this case illustrates that longstanding severe SAC may be associated with a variety of other problems. Affected patients require aggressive intervention to control their acute ocular inflammation. Their long-term outcome, however, also depends on their receiving appropriate multidisciplinary care. Therefore, it is incumbent upon the ophthalmologist to refer patients with severe SAC to specialists having the necessary diagnostic and therapeutic skills to manage their treatment.

References

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