ALIMERA SCIENCES PRESENTS CASE STUDIES IN DRY EYE

Combination Therapy for Multifaceted Problems

Ocular surface disease and ocular allergies often present together. This physician found a complementary treatment regimen to relieve symptoms of both disease processes.

When patients present with dry eyes, you normally prescribe a lubricant eye drop to restore moisture to the ocular surface. If ocular allergies are present, first-line therapy to relieve inflammation and dryness often includes combining an antihistamine eye drop with the lubricant.

Choosing an effective lubricant is key in either case, because the more moisture that's restored to the ocular surface and the more stable the tear film, the fewer the symptoms and the better the patient will feel.

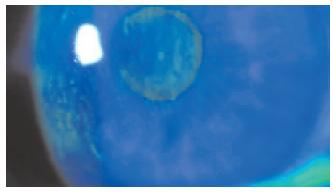
However, not all lubricants are equally effective. Some burn and irritate the eye temporarily upon application, while others have varying degrees of efficacy. So whenever I treat ocular allergies or dry eye, I use Soothe Emollient (Lubricant) eye drops as an adjunctive therapy. It stabilizes the tear film in a unique way, unlike other lubricants, and relieves symptoms more effectively.

Here's how I treated two different patients using Soothe eye drops: an adult with ocular surface disease with a dry eye and allergic component, and a young child with allergic conjunctivitis.

Case 1: The adult

A 45-year-old woman came to my office complaining of eye pain, irritation, burning and dry scratchy eyes. She had been a contact lens wearer, but because of her eye discomfort she could no longer wear them. She saw different practitioners over the years and tried topical nonsteroidal anti-inflammatory eye drops, punctal plugs and over-the-counter lubricants to relieve symptoms, but they were never completely resolved.

After discussing her history and examining her eyes, I diagnosed mild blepharitis and dry eyes with an allergic component. I used the Schirmer's test to confirm the dry eye diagnosis, which showed low tear production. The tear film broke up rapidly, demonstrating that it was



A blue-light view of an unstable tear film in an adult female patient, showing dry areas of tear breakup — an indication of dry eyes.

unstable. My goal was to treat the blepharitis, reduce the allergic response and stabilize the tear film so the patient could wear her contact lenses again.

Combination treatment

The patient had mild blepharitis, so I prescribed a daily hygiene regimen that involved applying hot compresses for 25 to 30 minutes; and following up with a lid scrub. In addition, I prescribed a topical steroid eye drop q.i.d. for the first week; a topical antihistamine eye drop b.i.d; and the Soothe eye drop to be administered every hour (until she felt a significant reduction in symptoms), and then every 2 to 4 hours thereafter.

I discovered that combining Soothe with the antihistamine eye drops effectively relieved the irritating symptoms of ocular surface disease and ocular allergies.

Mechanism of action

The tear film consists of three layers: the inner mucous layer, the aqueous layer and the outer lipid layer. Unlike other lubricants, Soothe stabilizes the lipid layer, preventing the aqueous layer from evaporating too quickly. Most



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lubricant eye drops don't target the lipid layer and provide only short-term relief for those with ocular allergies and dry eyes. The antihistamine stabilizes the mucous layer by reducing inflammation. So by combining the two therapies, each layer of the tear film is treated.

Remarkable improvement

At the 2-week follow-up, the patient showed a marked decrease in inflammation of the conjunctiva and corneal surface. Her tear film stabilized. And her tear film breakup time improved from 2 to 3 seconds (before therapy) to 5 to 6 seconds (post therapy). But most importantly, the patient's eye pain and irritation, the burning and foreign body sensation subsided significantly.

Because of the dramatic improvement, I suggested she continue using the hot compresses and lid scrubs for her blepharitis twice a week; the antihistamine eye drops b.i.d.; and the Soothe lubricant q.i.d. I stopped the topical steroids completely to avoid long-term side effects.

Case 2: The pediatric patient

A woman brought her 5-year-old son to my office, complaining that his eyelids had been twitching for 4 weeks. The mother made an appointment for the boy to see a neurologist at the request of his pediatrician to determine if he had a nervous tic disorder. The woman said her son complained of eye pain. Quite often, however, children confuse eye pain with itching, burning and symptoms of dry, gritty eyes. So you have to dig deeper to determine what the symptoms really are.

I asked the boy, "Do your eyes feel itchy?" "Does it feel like there's something in your eye?" and he answered yes. I examined his eyes for signs of ocular allergies. The boy had allergic "shiners," a dark blue discoloration around the eyelids due to venous congestion associated with atopic disease. In addition, he had trace chemosis on the conjunctiva, and there was a mild papillary response.

Given these symptoms and the boy's history, I diagnosed allergic conjunctivitis. The lid twitching was an outward manifestation of the child's chronic eye irritation. I prescribed an antihistamine eye drop to reduce the aller-



Tarsal conjunctival papillae delineated by fluorescein patterns in the upper eyelid of a 5-year-old male patient.

gic cascade and the Soothe lubricant to relieve the itching and foreign body sensation. At his follow-up visit, his symptoms resolved. His eyelids stopped twitching; his eye pain and the foreign body sensation disappeared.

Complementary therapy

As these cases illustrate, combining an antihistamine drop and Soothe Emollient (Lubricant) eye drops can effectively reduce allergy and dry eye symptoms. Soothe is particularly beneficial for children because it doesn't burn upon instillation. It's very comfortable, easy to introduce into a child's eye and very effective in treating ocular allergies and ocular surface disease.

Lubricants as a whole play a role in treating ocular allergies, but the Soothe eye drop is in a class by itself because of its unique stabilizing effect on the tear film's lipid layer. I'd recommend all physicians use it for both adults and children as an adjunctive therapy to treat ocular allergies and dry eye.

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