MANAGING DRY EYE FLARES

A new steroid option may help manage patients who have previously gone untreated.

BY WALTER O. WHITLEY, OD, MBA, FAAO

Dry eye disease (DED) is not a static condition. Patients' symptoms do not remain constant over time; instead, patients commonly experience periods of exacerbation or *dry eye flares*. Environmental changes can trigger symptoms associated with dry eye flares, as can contact lens wear, cataract or refractive surgery, excessive digital device use, and mask wearing.[1,2] Many patients cycle through several flare episodes per year.

UNDERSTANDING DRY EYE FLARES

DED is a chronic inflammatory condition; a dry eye flare indicates a period of active, rapid-onset inflammation. When a flare occurs, our treatment goal is to regain homeostasis of the tear film and, more broadly, the ocular surface environment. I remind patients of the importance of coming in or contacting the office when they have periods of exacerbation. With a directed conversation and by performing a slit-lamp evaluation including proper objective diagnostics such as matrix metallopeptidase 9 and tear osmolarity testing, I can determine the best course of action.

In patients who have not yet been diagnosed with DED but who experience hyperosmolarity, a flare can be a precursor to chronicity. Even in patients who may not complain of a dry eye flare, we often see signs of irritation and know they have been using artificial tears to try to manage their symptoms.

On a daily basis in clinic, I see patients with DED as often as I see patients with glaucoma. I monitor symptoms with the Standard Patient Evaluation of Eye Dryness (SPEED) questionnaire along with testing tear osmolarity (TearLab Osmolarity System, TearLab) and inflammation (InflammaDry, Quidel) to collect objective data. Questionnaires such as SPEED can be helpful to identify how frequently patients experience symptoms and pinpoint the occurrence of flares. For example, SPEED asks about when symptoms have occurred at the visit, within the past 72 hours, or within the past 3 months. This provides a prompt to start a conversation.

AT A GLANCE

- Among patients diagnosed with DED, 75% to 90% routinely experience exacerbations, or dry eye flares.
- A new formulation of the corticosteroid loteprednol etabonate is specifically labeled for short-term (up to 2 weeks) treatment of the signs and symptoms of DED.
- The formulation uses nanoparticle technology to facilitate penetration of the mucus barrier, allowing the drug to spread uniformly on the ocular surface to achieve longer retention.

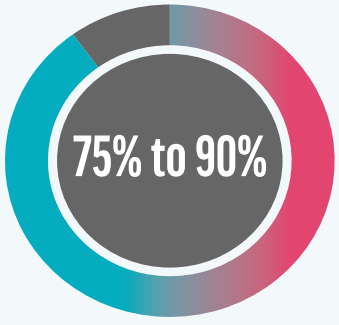
A NEW OPTION TO MANAGE FLARES

When new flares occur, most patients either self-treat with artificial tears or else power through the discomfort and irritation. Many of my DED patients are using one of the ophthalmic cyclosporine formulations or lifitegrast ophthalmic solution 5% (Xiidra, Novartis) chronically, but they may also need immediate short-term treatment to control symptoms associated with dry eye flares.

With the recent FDA approval of loteprednol etabonate ophthalmic suspension 0.25% (Eysuvis, Kala Pharmaceuticals) specifically for short-term (up to 2 weeks) use in DED, there is now a corticosteroid available to address the inflammatory cascade for these breakthrough dry eye flares to rapidly improve patients' signs and symptoms. Its fast action also makes loteprednol etabonate ophthalmic suspension 0.25% a good option as first-line therapy. The formulation uses a proprietary mucus-penetrating particle drug delivery technology (Ampplify, Kala Pharmaceuticals) to coat the nanoparticles in order to facilitate penetration of the mucus barrier and allow the drug to spread more uniformly on the ocular surface to achieve longer retention.

ASKING THE RIGHT QUESTIONS

To ensure that we solicit appropriate information about patients' symptoms, we must make sure we are asking the right questions. Of course, it is important to check baseline IOP and assess the optic nerve before prescribing topical steroid drops. Although safe for the majority of patients, it is important to review IOP history for existing patients to ensure there is no history of steroid response and, if there is, to consider other antiinflammatory treatment options. I schedule a follow-up visit in 1 or 2 weeks to evaluate for improvement in signs and symptoms and to check IOP. Additionally, I repeat the SPEED questionnaire and objective measures. Depending on these results, I may stop the short-term steroid and consider palliative treatment such as lipid-based, preservative-free artificial tears or a procedure such as punctal plug insertion. I reeducate patients on what dry eye flares are and prescribe therapies for them to address short-term dry eye flares in the future. If there is no improvement, I consider additional therapies such as thermal pulsation, amniotic membranes, and serum tears based on severity and clinical response. In either case,



Among individuals with a diagnosis of DED, **75%** to **90%** routinely have dry eye flares.[1-5]

Nearly **half of patients** with dry eye who routinely have flares report primarily having flares, not continuous symptoms.[1-5]

1. 2018 Study of Dry Eye Sufferers. Multi-Sponsor Surveys.
2. Kala Pharmaceuticals. Data on file. Dry Eye Disease Re-Contact Study. June 13, 2018.
3. Brazzell RK, Zickl L, Farrelly J, et al. Prevalence and characteristics of dry eye flares: a patient questionnaire survey. Paper presented at: American Academy of Ophthalmology Annual Meeting; October 12-15, 2019; San Francisco.
4. 2016 Dry Eye Disease Patient Journey Report. ClearView Healthcare Partners. Newton, MA.
5. American Academy of Ophthalmology. Dry Eye Syndrome PPP - 2018. www.aao.org/preferred-practice-pattern/dry-eye-syndrome-ppp-2018. Accessed May 25, 2021.

I monitor dry eye patients every 6 months to address the dry eye flares and manage chronic disease.

CLINICAL DATA

Loteprednol etabonate ophthalmic suspension 0.25% was studied for the short-term treatment of the signs and symptoms of DED in one phase 2 and three phase 3 trials, the largest dry eye clinical development program conducted for DED to date, including data on more than 2,800 patients.[3] In the Short Term Relief In Dry Eye, or STRIDE, clinical trials, researchers observed improvement in conjunctival hyperemia, corneal fluorescein staining, and patient-reported ocular discomfort severity score with the study drug. Patients assigned to treatment with the steroid experienced symptom improvement as early as day 2.

Loteprednol etabonate ophthalmic suspension 0.25% also demonstrated a beneficial safety profile: IOP was similar between the vehicle and treatment arms. In treatment and vehicle groups, respectively, 0.6% and 0.2% of participants experienced a >5 mm Hg increase from baseline resulting in an IOP measurement of ≥21 mm Hg in one or both eyes at any post-baseline visit.[3]

KEEP COMMUNICATION LINES OPEN WITH PATIENTS

Symptoms drive patients to our chairs. Loteprednol etabonate ophthalmic suspension 0.25% can provide patients with rapid relief of DED symptoms and signs.

Long-term success entails having a discussion with patients about their current dry eye flare symptoms and what they need to watch for in the future. By keeping this proactive conversation going, we can help ensure that our patients feel, look, and see well for the long haul. ■

1. American Academy of Ophthalmology. Dry Eye Syndrome PPP - 2018. www.aao.org/preferred-practice-pattern/dry-eye-syndrome-ppp-2018. Accessed May 25, 2021.
2. Moshirfar M, West WB, Marx DP. Face mask-associated ocular irritation and dryness. *Ophthalmol Ther*. 2020;9(3):397–400.
3. Holland EJ, Nichols KK, Foulks GN, et al. Efficacy and safety of KPI-121 0.25% for Short Term Relief in Dry Eye (STRIDE). Poster presented at: ASCRS Virtual Annual Meeting; May 16-17, 2020.

WALTER O. WHITLEY, OD, MBA, FAAO
- Director of Referral Services and Residency Program Supervisor at Virginia Eye Consultants, Norfolk, Virginia
- Co-Chief Medical Editor, *Modern Optometry*
- wwhitley@cvphealth.com
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