



TREATING OSD IN GLAUCOMA PATIENTS



Physicians can treat the ocular surface without derailing topical glaucoma regimens.

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Glaucoma affects nearly 2% of the US population over age 40, and ocular surface disease (OSD) may affect upward of 20% of the population. The prevalence of both diseases is well known to increase with age, so it is no surprise that OSD often exists in a concomitant state in more than 60% of glaucoma patients.¹ Adding to this, recent studies show that antiglaucoma medications may exacerbate and even cause OSD² and meibomian gland dysfunction (MGD).³

As physicians, we understand that glaucoma permanently and irreversibly

damages vision, whereas, comparatively, OSD may affect vision but does not commonly cause permanent sight loss. We take swift action to prevent

patients from losing their sight to glaucoma by placing them on multiple drops or recommending surgical intervention, whereas debilitating OSD can sometimes go unresolved because additional topical therapies are seen as too burdensome.

DIAGNOSING OSD IN PATIENTS WITH GLAUCOMA

It is my job to monitor the health of my patients' eyes, and, in my opinion, this includes making sure that any OSD is under control. Fortunately, in recent years, we have gained access to an array of diagnostic tools and technologies that allow us to better visualize and manage OSD pathology.

To identify OSD, I have patients complete a modified Standard Patient Evaluation of Eye Dryness (SPEED) questionnaire at their initial and follow-up examinations. Those with OSD markers and complaints of ocular surface issues undergo a careful slit-lamp examination with corneal and conjunctival staining,

AT A GLANCE

- ▶ Glaucoma treatment compliance suffers when patients have dry or irritated eyes.
- ▶ With the excellent diagnostic tools available to identify OSD, physicians can offer patients treatments that contribute positively to their overall quality of life.

Based on those results, patients may have tear osmolarity tests, tear breakup time assessments, or a meibography scan to identify MGD.

HOW DOES OSD AFFECT GLAUCOMA TREATMENT?

Glaucoma treatment compliance suffers when patients have dry or irritated eyes. My first line of treatment for OSD depends on the severity of the disease and whether it is aqueous deficient, evaporative, or a combination of the two. Typically, I recommend over-the-counter artificial tears and ointments or prescribe cyclosporine (Restasis, Allergan) or lifitegrast (Xiidra, Shire). I also consider punctal plugs.

If MGD is present, I recommend microblepharon exfoliation treatment and a thermal pulsation treatment (eg, LipiFlow, Johnson & Johnson Vision). If the OSD is severe and significant corneal staining exists, I use amniotic membrane grafts.

Unfortunately, many patients with glaucoma are reluctant to add more drops to their regimens. In cases of significant OSD, patients may feel discomfort no matter what they put in their eyes and, consequently, may cease to administer their glaucoma medications altogether. We know that the vast majority of patients struggle to maintain compliance with topical glaucoma therapy and that nearly half discontinue treatment altogether within 6 months.⁴ Thus, alternative nontopical treatment options for OSD may have to be considered.

ALTERNATIVE NONTOPICAL THERAPIES

The selected treatment plan is dependent on the type of dry eye disease or OSD that the patient presents with. In some cases, surgical procedures such as selective laser trabeculoplasty or microinvasive glaucoma surgery may allow patients to reduce their number of glaucoma medications, which may result in a reduction of OSD symptoms.

Ocular disease triggered by MGD often responds well to nondrop

treatment options such as thermal pulsation, nutraceuticals, or neurostimulation (eg, TrueTear, Allergan). In acute cases, I am comfortable pausing the patient's glaucoma drop regimen and prescribing a short-term (2 weeks), low-dosage corticosteroid to reduce inflammation while patients concurrently take an oral nutraceutical. Patients find the short-term dosing schedule tolerable and are more likely to comply with this approach versus a long-term treatment plan.

In the majority of patients with mild to moderate glaucoma, the temporary suspension of glaucoma therapies is inconsequential, and disease progression is unlikely to occur in this short 2-week time period. Conversely, there is a high probability of disease progression in patients placed on long-term, cumbersome OSD treatments who are non-adherent to topical glaucoma therapy.

NUTRACEUTICAL TREATMENT OPTIONS

High-quality nutraceutical supplements can be particularly beneficial for patients who struggle with drop compliance. However, it is important to counsel patients that, with this approach, improvement is gradual and they may need to use a supplement for several months before evaluating their comfort level. Thus, I often combine nutraceuticals with an initial corticosteroid treatment plan; patients experience immediate relief while the micronutrients build up and eventually begin to take effect.

Patient preference and cost are important when considering nutraceutical supplements. I write down my brand recommendation and advise patients to look for supplements that include GLA, eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA). Although the recent Dry Eye Assessment and Management (DREAM) study raised questions about the use of high-dose fish oil supplementation alone for patients with moderate to severe dry eye disease,⁵ GLA (alone or with small amounts of EPA and

DHA) has demonstrated efficacy in improving dry eye signs and symptoms.

A randomized, controlled, double-masked study demonstrated that a supplement containing GLA, EPA, and DHA significantly improved symptoms, suppressed markers of conjunctival inflammation, and maintained corneal smoothness in patients with dry eye.⁶ I prefer recommending a supplement with known quality and efficacy because supplements that patients find on their own may be of variable quality or labeled in a confusing way. After 6 weeks, I follow up to monitor compliance and progress.

GO AHEAD: TREAT OSD

OSD is highly prevalent among patients with glaucoma, but its treatment does not need to take a back seat. Physicians can treat OSD without derailing topical glaucoma regimens. With the excellent diagnostic tools available to identify OSD, we can offer patients treatments that contribute positively to their overall quality of life. Surgical procedures such as selective laser trabeculoplasty and microinvasive glaucoma surgery may reduce patients' reliance on glaucoma medications and potentially provide relief from OSD. However, patients can benefit from less invasive nontopical approaches, such as nutraceuticals, thermal pulsation, and neurostimulation. ■

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