

MUCH ADO ABOUT THE OCULAR SURFACE



The ocular surface maintains a smooth, refractive plane on the cornea and protects the eye against microbes, trauma, and toxins. Most of the time, the ocular surface is in balance, but damage to the cornea, tear film

instability, a blocked duct, etc, can create an imbalance, inciting ocular surface disease (OSD), which can affect quality of life, cataract surgery outcomes, and more.

As eye care practitioners, we all see OSD in our patients, regardless of our mode of practice. The condition affects patients with glaucoma and those preparing for cataract or refractive surgery—it doesn't discriminate based on age. Young, old, even children are at risk of developing dry eye disease (DED). This issue of *Modern Optometry* focuses on all things ocular surface.

Optometrists should be familiar with the main lacrimal gland, but how much do you know about the accessory glands of Krause and Wolfring? Srinivas S. Kondapalli, MD; Nandini Venkateswaran, MD; and Ada Noh, OD, will tell you all about them on page 21. Vitamin A can improve ocular surface health and promote corneal healing, but it can also be toxic; too much or too little can reap harmful effects. On page 38, Kaleb Abbott, OD, MS, FAAO, breaks down the complex relationship between vitamin A and OSD.

Identifying OSD is the first step to formulating a plan to manage it. If you haven't already, I encourage you to take some time to look at two great resources: the Tear Film & Ocular Surface Society (TFOS) DEWS II study¹ and the ASCRS Preoperative OSD Algorithm.² Both do a great job of defining evaporative versus aqueous-deficient dry eye and providing classifications of different levels of dry eye. The TFOS DEWS II study sought to update the definition and classification of DED; evaluate its epidemiology, pathophysiology, mechanism, and effect; develop suggestions for its diagnosis, management,

and treatment; and recommend the design of clinical trials to assess future technology for DED.

The ASCRS Preoperative OSD Algorithm developed a new consensus-based practical diagnostic OSD algorithm to help diagnose and treat dry eye, specifically before cataract and refractive surgery. With all the different technologies available to aid in the diagnosis of DED, these two resources offer clinicians an excellent starting template. Speaking of diagnostics, check out page 26, where M. Nabila Gomez, OD, FAAO, informs readers on how to use high-resolution OCT as an "optical biopsy" to differentiate ocular surface masqueraders.

Did you know that dry eye is common in neurologic conditions? Jacqueline Theis, OD, FAAO, FNAP, provides an in-depth look at neurologic dry eye on page 45. Once you've made the diagnosis of dry eye, the real work begins: choosing the proper treatment protocol, which may include in-office therapies, topical corticosteroids, or immunomodulators. Since the publishing of the TFOS DEWS II, we have had multiple new treatment options enter the market to add to the arsenal of dry eye management.

In this issue, some of our authors focus on treatments and diagnostics that may not be mainstream yet, but are making a push. Nicholas J. Bruns, OD, FAAO, offers a look at what's new in dry eye management on page 19, and Mahnia Madan, OD, FAAO, decodes the healing potency of biologics on page 32. Often, patients with dry eye aren't able to be managed with just one treatment consideration. They may even fail with our first treatment choice. Understanding what is new could provide the silver bullet we need. I hope the content of this issue helps you take your dry eye diagnosis and management to the next level! ■

— Justin Schweitzer, OD, FAAO

1. Willcox MDP, Argüeso P, Georgiev GA, et al. TFOS DEWS II Tear Film Report. *Ocul Surf*. 2017;15(3):366-403.

2. ASCRS preoperative OSD algorithm. The American Society of Cataract and Refractive Surgery. Accessed February 16, 2024. <https://ascrs.org/clinical-education/cornea/ascrs-preoperative-osd-algorithm>



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