Improving the Health of the Ocular Surface With Artificial Tears

An ophthalmologist offers insight into how and when to use drops to improve ocular surface disease.

Optimizing the ocular surface with Oasis Tears to improve outcomes.

By Karl G. Stonecipher, MD

In a refractive or a refractive cataract surgery practice, I believe the number-one issue is how the patient sees postoperatively. Patients are paying additional money to improve the quality of their life with superior vision. That process starts with surgeons' attention to detail preoperatively and ends with paying attention to postoperative outcomes. The primary referral I receive in my practice today is the unhappy patient, and the usual problem is a compromised ocular surface.

Ocular surface disease is magnified by presbyopia-correcting IOLS. A healthy preoperative tear film reduces the chance of postoperative infection, enhances ocular comfort, and improves postoperative visual outcomes.

By treating dry eye before working up patients for refractive or multifocal IOL surgery, I can obtain more accurate information about their eyes and thus better predict important parameters, such as the data required to calculate the lens' power. One of the products I have found helps my patients preoperatively is Oasis Tears (OASIS Medical, Inc., Glendora, CA).

The high molecular weight of Oasis Tears combined with the concentration of the delivery system creates a sponge-like matrix through a process called *molecular crowding*. The glycerin within this matrix captures and holds water with each blink of the eye. The hyaluronan adapts to the eye by thinning when the lids close and thickening upon their opening.

Exactly how hyaluronan works is unknown, but the viscoadaptive formulation stays on the ocular surface for a longer period of time than do other drops. In a study of 30 eyes, 77% of patients increased their tear breakup time by about 50%, which means they saw better for longer and did not need to use drops as frequently (data on file with Oasis Medical, Inc.). Unlike most artificial tears, Oasis Tears do not distort patients' vision for 30 seconds to 1 minute upon instillation. I find that patients are more compliant with artificial tear therapy when they have visual clarity upon instillation and a long-lasting effect. These qualities make Oasis Tears ideal for patients undergoing refractive and premium IOL surgery. I recommend Oasis Tears as a first-line agent or in conjunction with Restasis (Allergan, Inc., Irvine, CA) when the problem is more severe.

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In addition, sodium hyaluronate has been shown to improve both fluorescein and rose Bengal staining in patients with dry eye disease,[1,2] a finding that suggests that treatment with this agent promotes corneal and conjunctival epithelial healing. In addition, two recent studies demonstrated that artificial tears containing sodium hyaluronate reduced damage to the ocular surface in patients with ocular surface disease and promoted corneal wound healing.[3,4]

I favor a product that patients find comfortable and that does not induce more visual distortion. Oasis Tears fit these criteria.

Karl G. Stonecipher, MD, is the director of refractive surgery at TLC, in Greensboro, North Carolina. He serves on the speakers bureau for Oasis Medical, Inc. Dr. Stonecipher may be reached at (336) 288-8523; stonenc@aol.com.

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