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A Healthy Ocular Surface Before Surgery

Dr. Donaldson: It is especially important to treat dry eye as we prepare our patients for cataract surgery because it can affect both our pre-op measurements and the patient's healing after surgery. With all of our premium lens technologies and femtosecond cataract surgery, patients are expecting perfection. If we don't optimize the ocular surface before surgery, patients will be dissatisfied and that's bad for everyone (patients and surgeons).

Dr. Matossian: Dr. Epitropoulos and I are involved in a study examining certain indices for dry eye disease and the benefits of oral omega-3 supplementation prior to cataract surgery. By taking re-esterified omega-3, there was a significant improvement in tear osmolarity, omega-3 index levels, TBUT, and OSDI symptom scores, as well as reduction in MMP-9 positivity creating a more stable tear film and making patients more comfortable.

Dr. Epitropoulos: Dr. Matossian and I were involved in another multi-center clinical trial looking at tear osmolarity in surgical patients and the effect this may have on IOL power calculations. The results show that hyperosmolar patients have much greater variability in their keratometry readings and IOL power calculations compared with normal osmolar patients. In fact, 10% of the hyperosmolar patients had greater than 0.5D difference in IOL power calculations. That really does make a difference, especially in our premium lens patients.[1]

Dr. Matossian: Initially, I thought patients might be turned off if I said, "Mrs. Smith, we need to do this and that to get your ocular surface optimized before you can come back to have your pre-surgical measurements redone." But patients actually appreciate that I'm trying my best to achieve the very best surgical outcome for them. They only want one surgical procedure, not a touchup after surgery. I have yet to have a patient say, "No, I don't want to wait! I'm going to another surgeon!" They are happy that I'm careful.

Reference

1. Epitropoulos AE, Matossian C, Berdy GJ, Malhotra RP, Potvin R. Effect of tear osmolarity on repeatability of keratometry for cataract surgery planning. *J Cataract Refract Surg.* 2015; 41(8):1672-1677.

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