

THE AGING LENS

DYSFUNCTIONAL LENS SYNDROME



It's my pleasure, as the guest medical editor, to introduce *CRST*'s special focus on presbyopia as I sit here writing my editorial on the auspicious day of February 20, 2020 (02.20.20). More and more, we are reading (with glasses) about innovative approaches to the correction of presbyopia, and for good reason: There are an estimated 2.1+ billion presbyopes worldwide, according to Market Scope.

International census data suggest that, in 2005, nearly 50% of all presbyopes globally did not have access to reading glasses and, of these, 80% were unable to perform work adequately.¹ Access to glasses, however, does not solve all vision-related problems. Approximately one-third of falls experienced by the elderly have been associated with the use of bifocal glasses.² Falls that occur among individuals over the age of 65

are associated with a higher mortality rate than for both breast and prostate cancer annually in the United States.³

FALLING OFF THE VISION CLIFF

Plano presbyopes may be even more intolerant of the requirement for reading aids, as they have never had to adapt to vision correction for any reason. Furthermore, even patients with low levels of hyperopia manifest the effects of presbyopia at

an earlier age. Often, these patients feel as though they have fallen off the vision cliff in that they went from seeing everything naturally to experiencing loss of optimal vision performance at all ranges.

Many presbyopic patients present in their 50s and 60s wanting vision correction to eliminate the need for bifocals; however, more recently, we are also seeing patients present in their 40s. Our patients from the baby boomer generation have difficulty seeing at distance due to congenital ametropia and at near due to their progressive presbyopia. Baby boomer patients do not come in stating that they cannot drive at night due to glare; they are seeking an elective procedure to provide spectacle independence. For many years, we performed LASIK in these types of patients. However, they would frequently come back years later complaining that their LASIK had worn off.

STAGES OF DLS

Some years ago, Daniel S. Durrie, MD; Jason E. Stahl, MD; and I proposed the terminology *dysfunctional lens syndrome* (DLS) merely as an attempt to better characterize the spectrum of changes

in the aging lens. Later, we outlined a grading scale for DLS: Stage 1 is presbyopia, stage 2 is lens opacity and aberrations, and stage 3 is manifest opacity and higher-order aberrations that adversely affect patients' quality of life and meet the guidelines for a cataract outlined by Medicare.⁴

During the refractive consultation, I emphasize to all patients that DLS is a normal part of the aging process and explain that no action is required. For patients who wish to pursue surgery to treat presbyopia, however, lens replacement is presented as an option when appropriate. As with all surgical procedures, I outline the relative risks and benefits of each technique. Today, I most often recommend a lens-based procedure for a lens-based problem, while keeping the entire clinical picture in mind, including retinal pathology and risk factors for retinal detachment. However, in my experience, maintenance of stereoacuity is correlated with patient satisfaction.

Regardless of its effects—whether on quality of life, economic security, or personal safety—the burden of presbyopia is undeniable. Presbyopia is finally receiving its due attention as a treatable disease state. Moreover,

this ubiquitous refractive disorder presents a wonderful opportunity to help patients, and this issue of *CRST* explores how to do just that. World experts cover the presbyopia gamut, from cornea, to sclera, to lens-based solutions. They also explore technological and pharmacologic up-and-comers in the presbyopia space.

It is a wonderful time to be a cataract and refractive surgeon. With so many technologies in the pipeline, the correction of presbyopia could even emerge as a standalone specialty.

Happy 2020! ■

1. Holden BA, Fricke TR, Ho SM, et al. Global vision impairment due to uncorrected presbyopia. *Arch Ophthalmol.* 2008;126(12):1731-1739.

2. Lord SR, Dayhew J, Howland A. Multifocal glasses impair edge-contrast sensitivity and depth perception and increase the risk of falls in older people. *J Am Geriatr Soc.* 2002;50(11):1760-1766.

3. Falls are leading cause of injury and death in older Americans [press release].

Centers for Disease Control and Prevention. September 22, 2016. www.cdc.gov/media/releases/2016/p0922-older-adult-falls.html. Accessed January 27, 2020.

4. Waring IV GO, Rocha KM. Characterization of the dysfunctional lens syndrome; a review of the literature. *Curr Ophtalmol Rep.* 2018;6:249-255.

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