

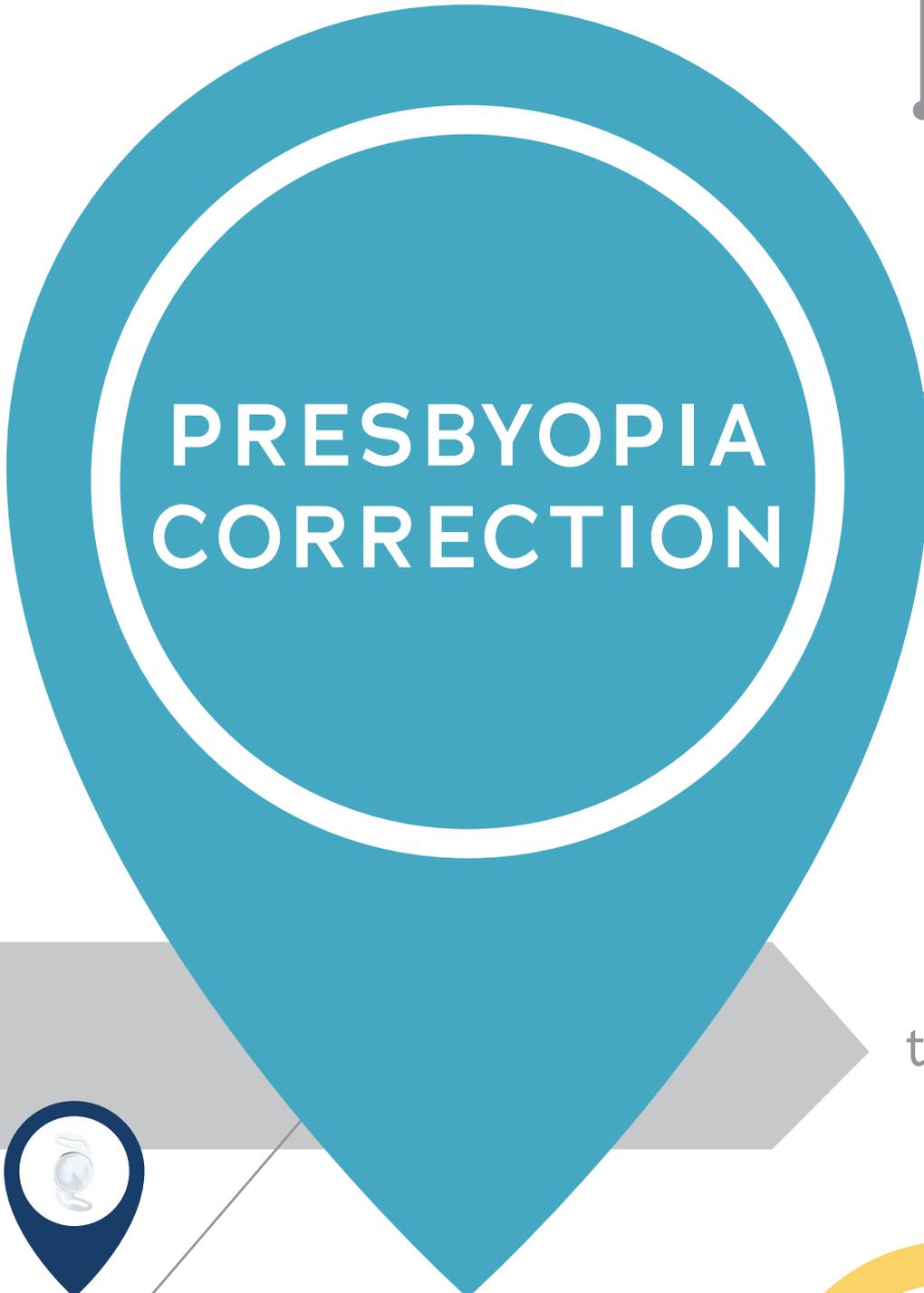
Supplement to

April 2021

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CRST EUROPE

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Sulcoflex Trifocal in Clinical Practice

This IOL can be useful for pseudophakic enhancements and in special cases.

BY SHERAZ M. DAYA, MD, FACP, FACS, FRCS(ED), FRCOPHTH



The option of a supplementary or sulcus-fixated trifocal IOL is welcomed. I have been using the Sulcoflex Trifocal (Rayner) since early 2019 and have found it useful in many situations, including the following:

1. Primary cataract and refractive lens exchange surgery combining a monofocal or monofocal toric lens implanted in the capsular bag with the Sulcoflex Trifocal lens implanted in the ciliary sulcus (DUET procedure; see pages 5-7 for more information about this technique);
2. Pseudophakic eyes with or without a small residual refractive error;
3. Patients undergoing IOL exchange, such as those with a calcified lens or poorly performing multifocals (bifocals and extended depth of focus) in the presence of an open capsule; and
4. A posterior capsule break.

In the last situation, two IOLs are placed in the ciliary sulcus. A monofocal three-piece lens is first implanted with optic capture behind the anterior capsule, followed by a Sulcoflex with the haptics placed 90° away from the monofocal IOL.

Of the 41 cases of DUET procedures I have performed, I have not had to remove the lens due to dysphotopsias that have not been tolerated. The Sulcoflex Trifocal IOL performs similarly to competitor trifocal lenses, with no more incidence of dysphotopsias. I only removed one lens in a patient who had protracted inflammation following surgery. In this patient, who turned out to have diabetes, I elected to remove the lens because I felt the iris in contact with the lens might be the cause of the inflammation. Removal of the lens was straightforward and resolved the problem.

GOOD CANDIDATES

The majority of my patients (> 95%) undergo laser lens replacement and receive a trifocal lens. A subgroup of patients who may or may not be perfect candidates for a trifocal IOL, however, are those who may not adapt or tolerate positive dysphotopsias including halos, starburst, and glare or may be adversely affected to them based on their occupation, such as heavy goods vehicle drivers. I find that the Sulcoflex Trifocal IOL is an excellent option in these patients because the lens can be removed if necessary in a fairly straightforward manner.

The DUET implantation procedure can also be considered in patients who may develop ocular problems that affect visual

performance with a trifocal lens, such as those with a strong family history of age-related macular degeneration or glaucoma. It is also an excellent option in patients who might be apprehensive about the development of visually debilitating dysphotopsias.

It is reassuring for them to know that this “additive” lens technology can be removed in a facile manner, avoiding the complexities of an IOL exchange, especially in the presence of an open capsule. Further, in patients with astigmatism, the surgeon’s favored toric monofocal IOL can be placed in the capsular bag in the correct orientation with the Sulcoflex Trifocal IOL implanted on top.

Lastly, providing trifocality in patients with monofocal pseudophakia is an excellent option, especially if they have a residual refractive error that is mainly spherical in nature. Surprisingly, not many pseudophakes have sought this option at my clinic (despite constant patient counseling and education). Of the 56 Sulcoflex Trifocal procedures I have performed, only four were in pseudophakic patients, which I suspect is because patients are overall pleased with their vision and unwilling to take on further risks or additional costs. The pseudophakic patients in whom we have performed this procedure were pleased because they achieved spectacle independence.

IOL EXCHANGE IN THE PRESENCE OF AN OPEN CAPSULE

A three-piece trifocal lens has not yet been manufactured. Therefore, a traditional trifocal IOL cannot be implanted in an IOL exchange procedure, leaving patients to make do with a monofocal lens and spectacle correction for near and intermediate vision. The opacified multifocal or unsatisfactorily performing multifocal lens is explanted. Today, however, another option for IOL exchange procedures in the presence of an open capsule is to implant the Sulcoflex Trifocal IOL. We have performed this procedure in 11 eyes, placing a three-piece monofocal lens in sulcus with posterior optic capture and the Sulcoflex Trifocal IOL on top. This in spite of a vitrectomy has provided patients with exceptionally good outcomes.

There is no need to make any alterations in lens calculation for the monofocal lens when performing the DUET procedure for IOL exchange cases. It can be quite challenging, however, to figure out the power of the monofocal implant when there is no record of the previous lens calculation or actual power of lens used. In cases where this information is available, we have not encountered any

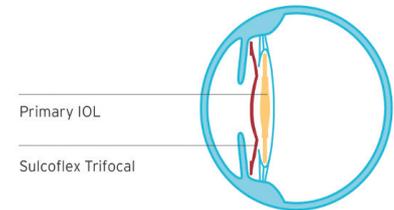


Figure 1. The placement of the Sulcoflex Trifocal IOL in the ciliary sulcus.

Pseudophakic patients seeking spectacle independence can find their local Sulcoflex Trifocal surgeon at www.sulcoflex.com



postoperative refractive errors and have not made any adjustments to the lens power if the lens optic is situated as planned behind the anterior capsule.

IMPLANTING THE SULCOFLEX TRIFOCAL: TIPS AND TRICKS

The Sulcoflex Trifocal IOL is a large hydrophilic acrylic implant with posteriorly angulated haptics to avoid pupil block (Figure 1). During the DUET procedure, therefore, it is best to first remove any OVD posterior to the monofocal lens to simplify the maneuver and reduce the risk of decentering the posterior implant.

It is also important to ensure good pupil dilation and deepen the anterior chamber with an OVD to displace the anterior capsule posteriorly away from the iris. The latter can be achieved by first injecting the OVD behind the iris and in front of the peripheral anterior capsule and then deepening the overall anterior chamber.

I use a Lester Pusher as a second instrument to control implantation of the lens. This instrument helps to both manipulate the very large haptics as they enter the eye and to prevent the optic from inadvertently touching the endothelial surface (Figure 2). After irrigation and aspiration, I like to constrict the pupil with acetylcholine chloride intraocular solution, which helps to reassure the lens is well centered without risk of optic capture by iris tissues.

Lastly, we keep a bank of plano Sulcoflex Trifocal lenses in stock. This provides the reassurance that, in the event of a capsule break,

we still have the option of providing trifocality to patients. As trouble-shooters, we regularly perform IOL exchange. Availability of a plano trifocal lens off the shelf saves us the trouble of having to place a special order for the lens.

CONCLUSION

In my practice, the Sulcoflex Trifocal IOL is used for a variety of situations, including those described herein. The option to implant a supplementary IOL, which we explain if necessary, is one that I am using with increased frequency. ■

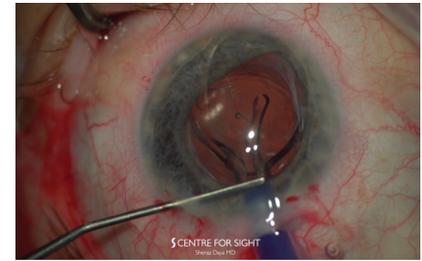


Figure 2. The use of a Lester Pusher as a second instrument helps to control implantation of the Sulcoflex Trifocal lens, manipulate the haptics as they enter the eye, and prevent the optic from inadvertently touching the endothelial surface.

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- Financial disclosure: Article honorarium (Rayner)

Create a Clearer Picture of Patient Care With RayPRO



BY MARK VIZARD

Ophthalmic surgeons are under increasing pressure to collect and evaluate postoperative outcomes and patient-reported outcome measures (PROMs). Therefore, biometry data alone might not provide a clear picture of patient care.

As all surgeons know, biometry data is an important part of the patient examination. It does not, however, capture the patient experience. Cataract surgery is a long-term clinical event that produces results that are personal to patients. To supplement our understanding of the patient journey, the addition of subjective data to the evaluation process can provide a better understanding of the level of care administered by surgeons and their practices.

Sparrow et al pointed out that visual acuity may "provide a poor indication of visual difficulty in a complex visual world."¹ Further, clinicians experience the pressures of busy caseloads and providing high-level care and the inherent difficulties of practicing ophthalmology in a competitive commercial landscape. It is not easy to add another task—the collection, analysis, and display of PROMs—to their packed daily schedules.

RayPRO is the missing piece to the puzzle. This free mobile and web-based digital platform proactively collects real-time patient feedback and PROM data for a period of 3 years after patients undergo cataract surgery. RayPRO provides users with real-time, easy-to-use reports via a dashboard that can be accessed wherever and whenever.

RayPRO is free to all Rayner IOL users. The platform provides surgeons with further insight into their service and surgical performance, and it can also be used to help promote themselves to prospective patients. The data collected with RayPRO can be used in appraisals and recertification and to support clinical studies.

Registration is quick and easy. Following surgery, patients answer five short confidential questionnaires over the course of 3 years that ask about their level of satisfaction, spectacle independence, dysphotopias, and need for follow-up procedures. For practitioners, RayPRO displays aggregate reports of the questionnaire results and IOL usage and displays them on a personalized surgeon dashboard.

Rayner hosts regular informational webinars on RayPRO. The company uses the anonymized,

aggregated global insights from RayPRO to enhance the development of products. Rather than basing technological advances on studies with a relatively small number of patients, which is not statistically representative of the 28 million cataract procedures performed every year, Rayner will soon be able to make decisions based on data from 10,000 or even 100,000 procedures. This is why RayPRO is invaluable to both practitioners and the company. RayPRO fills the gap in how we understand clinical efficacy, and it allows surgeons and the industry alike to tap into the wealth of data available through the collection of PROMs. ■

1. Sparrow J, Grzedzi M, Frost N, et al. Cataract surgery patient-reported outcome measures: a head-to-head comparison of the psychometric performance and patient acceptability of the Cat-PROMS and Catquest-9SF self-report questionnaires. *Eye*. 2018;32:788-795.

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- Financial disclosure: Employee (Rayner)

Learn more at www.rayner.com/raypro