First Report from Spain on an Enhanced Monofocal IOL that Offers Ease of Use with Good Satisfaction with Appropriate Patient Selection

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KEY TAKEAWAYS

1. For surgeons unfamiliar with RayOne EMV, there is no substantial learning curve.
2. There have been no reports of halos, as RayOne EMV lacks diffractive rings.
3. Patients with a high degree of myopia, in the range of -8.0 or -9.0 diopters, are very pleased with RayOne EMV.

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For the past year, I have been offering my patients a new option for vision correction following cataract surgery – an enhanced monofocal intraocular lens (RayOne EMV, Rayner Intraocular Lenses Ltd., Worthing, UK). In general, I have been using enhanced monfocals / extended depth of focus (EDOF) lenses in patients who are not good candidates for trifocal lenses, such as those for whom I know will not be tolerant of effects like halos or dysphotopsias, as well as those who simply do not want to pay the premium price for trifocal lenses. In my practice, I have used the Mini Well (Sifi S.p.A., Catania, Italy) and Vivity (Alcon, Fort Worth, TX, USA) EDOF lenses. My experience to date with RayOne EMV has shown that this IOL is a very good option in patients hoping for better distance and intermediate vision, and do not have any underlying retinal problems or advanced glaucoma.

What I have found is that this IOL is an attractive alternative to available EDOF lenses as most patients tolerate a slight myopia, and those with a bit of astigmatism tolerate it as well. RayOne EMV also operates with a greater degree of independence from pupil size, unlike lenses that target plano refraction, for instance. While there is not yet a toric option for RayOne EMV, I have found that RayOne EMV provides the flexibility to be used in patients with up to 1.5 diopters of astigmatism (Rayner officially recommends <1.0 D of astigmatism). In those with higher degrees of astigmatism, I continue to use toric lenses.

For surgeons who are unfamiliar with RayOne EMV, I do not believe that there is a substantial learning curve as long as patient biometrics are adequately captured.

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What is really interesting is that this new class of monofocal may be an option for those who have hesitated to move beyond traditional monofocal lenses. Because the EMV lacks diffractive rings, there have been no reports of halos. In addition to good intermediate vision, patients retain some near vision as well for daily tasks, resulting in high patient satisfaction. They will only require spectacles for very specific tasks like reading small print, and I have found that my patients are very happy with these outcomes, even when some myopia remains after the procedure. I have found that even patients with a high degree of myopia, in the range of -8.0 or -9.0 diopters, are also very pleased with RayOne EMV. To date, there is really no downside to using RayOne EMV in appropriate patients as there is a very low risk of patient dissatisfaction.

RayOne EMV is particularly useful in younger patients who develop cataracts and still have accommodation, which would be lost if I implanted a standard monofocal IOL. With this enhanced monofocal, my patients are very happy with their vision, without depending on spectacles for near vision.

Rayner