



MILAN



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Analysis Of The Quality And Visual Stability Of The Diffractive Trifocal Intra-Ocular Lens Rayone Trifocal[®] Rayner

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Disclosure for Mariano Royo and Angel Jiménez

In compliance with COI policy, ESCRS requires the following disclosures to the session audience:

Shareholder	No relevant conflicts of interest to declare.
Grant / Research Support	No relevant conflicts of interest to declare.
Consultant	No relevant conflicts of interest to declare.
Employee	No relevant conflicts of interest to declare.
Paid Instructor	No relevant conflicts of interest to declare.
Speaker Bureau	No relevant conflicts of interest to declare.
Other	No relevant conflicts of interest to declare.

This presentation includes discussion of the following medical device:
RayOne Trifocal® RAO603F intraocular lenses.



Purpose, Settings and Methods

PURPOSE

Visual analysis after implantation of the RayOne Trifocal® (RAO603F) Rayner intraocular lens (IOL). Based on visual acuity and contrast sensitivity data under photopic and scotopic conditions.

METHODS

25 patients who underwent surgery on both eyes with RayOne Trifocal® Rayner IOLs are examined. All of them have visual acuity and contrast sensitivity measured 12 months after surgery under photopic and scotopic conditions.



Visual acuity and defocus curve at 12 months monitored with EDTRS optotype at 4 meters, photopic lighting of 85cd/m², scotopic lighting of 10cd/m².



Contrast sensitivity measured at 6 months using the CSV-1000HGT chart at a distance of 2.5 meters (8 feet) with spatial frequencies of 3, 6, 12 and 18 cycles/degree.

SETTINGS

A prospective cohort study of a single surgeon using the RayOne Trifocal® (RAO603F) Rayner intraocular lens.

Demographics

Age		58.08 ± 6.92
Gender	Male	8
	Female	17

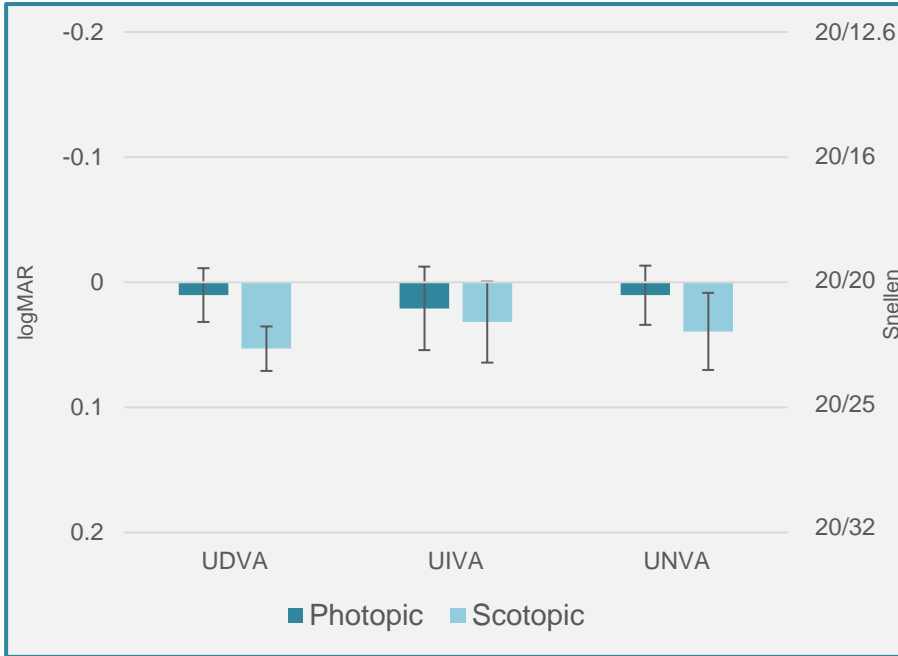
Effectiveness and safety outcomes:

Monocular and binocular uncorrected VA at distance, intermediate (67 cm) and near (33 cm) under photopic and scotopic conditions at 12 months post-implantation.

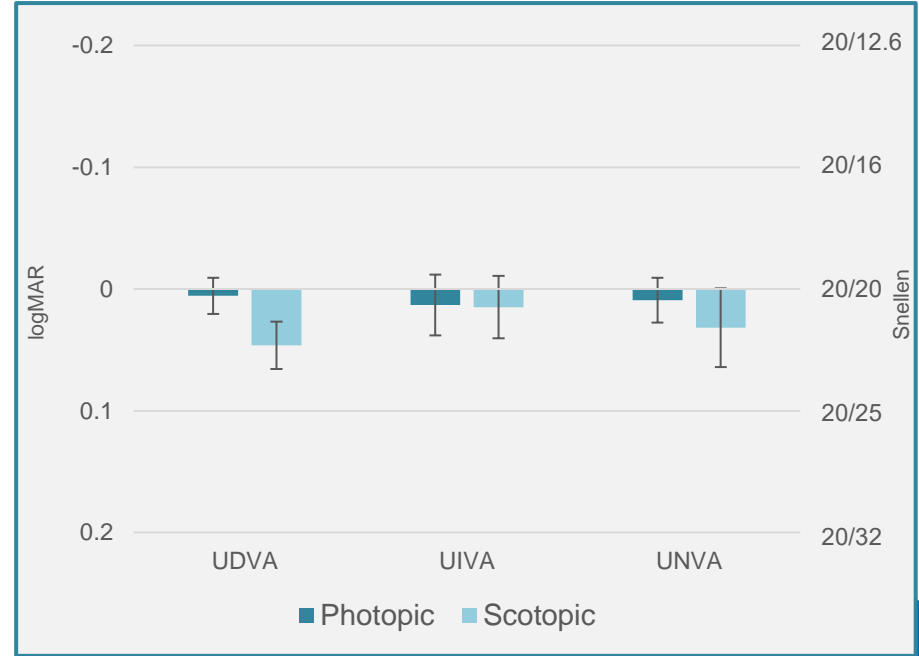


Results - Visual Acuity

Monocular



Binocular



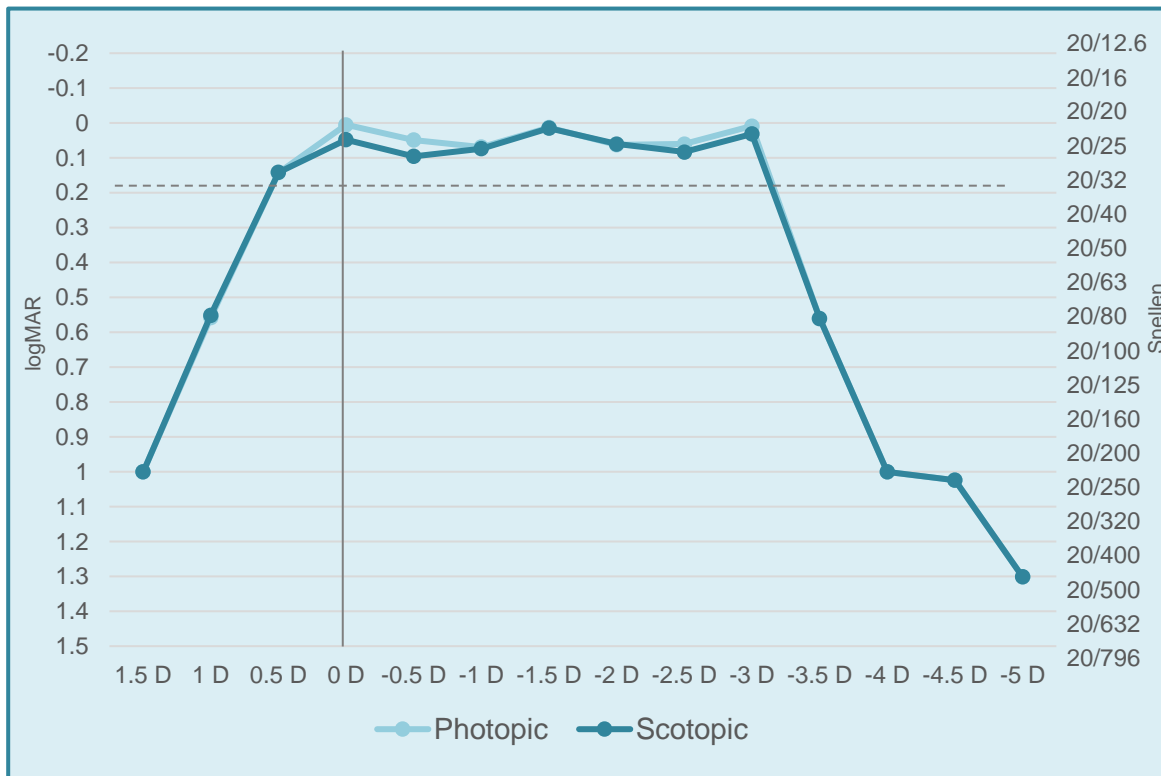
Error bars represent standard deviation (SD).

Very stable visual acuity at all distances and light conditions both monocular and binocular.

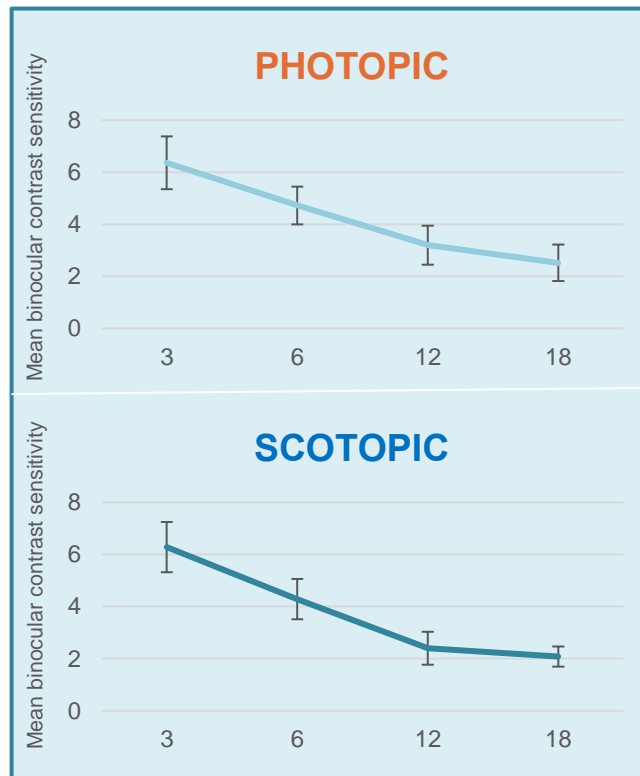


Results

Binocular Defocus Curves



Contrast Sensitivity



Discussion & Conclusions

- RayOne Trifocal[®] (RAO603F) IOL has a unique trifocal technology using the 0th order of diffraction for intermediate vision.
- RayOne Trifocal features an aberration neutral aspheric IOL optic.
- RayOne Trifocal demonstrated a safe and accurate restoration of uncorrected vision for distance, intermediate and far distances.
- The lens performance remained very stable at all distances regardless of pupil diameter and lighting conditions.
- The contrast sensitivity remained similar under photopic and scotopic conditions.

