CLINICAL OUTCOMES WITH A NEW DIFFRACTIVE MULTIFOCAL INTRAOCULAR LENS (IOL)

Pilar Casas de Llera

Ana Belen Plaza

Alfredo Vega-Estrada

Jorge L Alio

Vissum Corporation
Alicante, Spain

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Jorge L Alio MD PhD

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PURPOSE

To evaluate visual outcomes in patients implanted with a new diffractive multifocal IOL.

METHODS

20 eyes of 10 cataract patients implanted with the SeeLens multifocal IOL (age ranging 58-71 years)

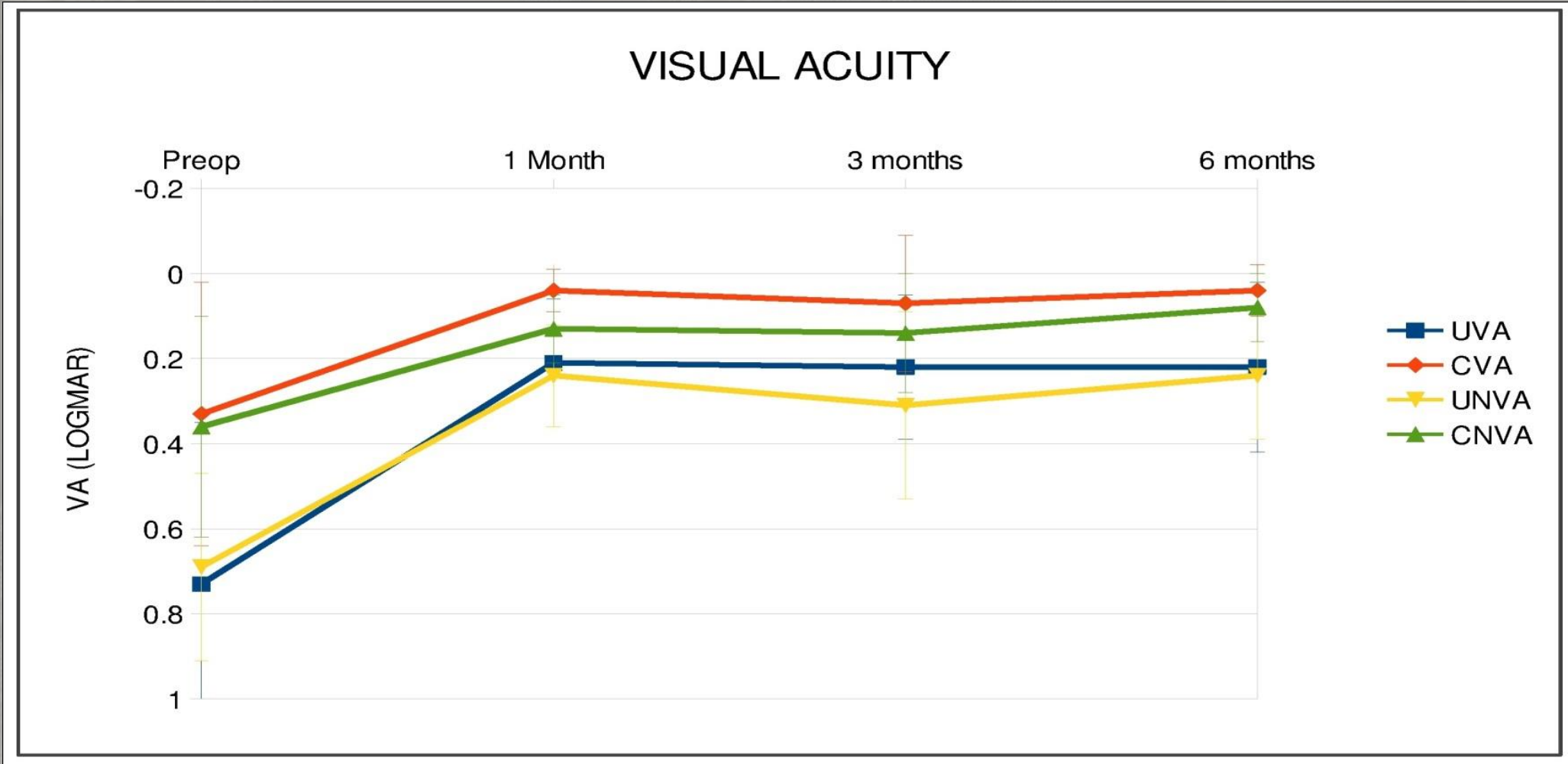
Following examinations were performed:

- Distance and near visual acuities
- Defocus curve
- Contrast sensitivity
- Ocular aberrometry

The follow-up was 6 months after surgery

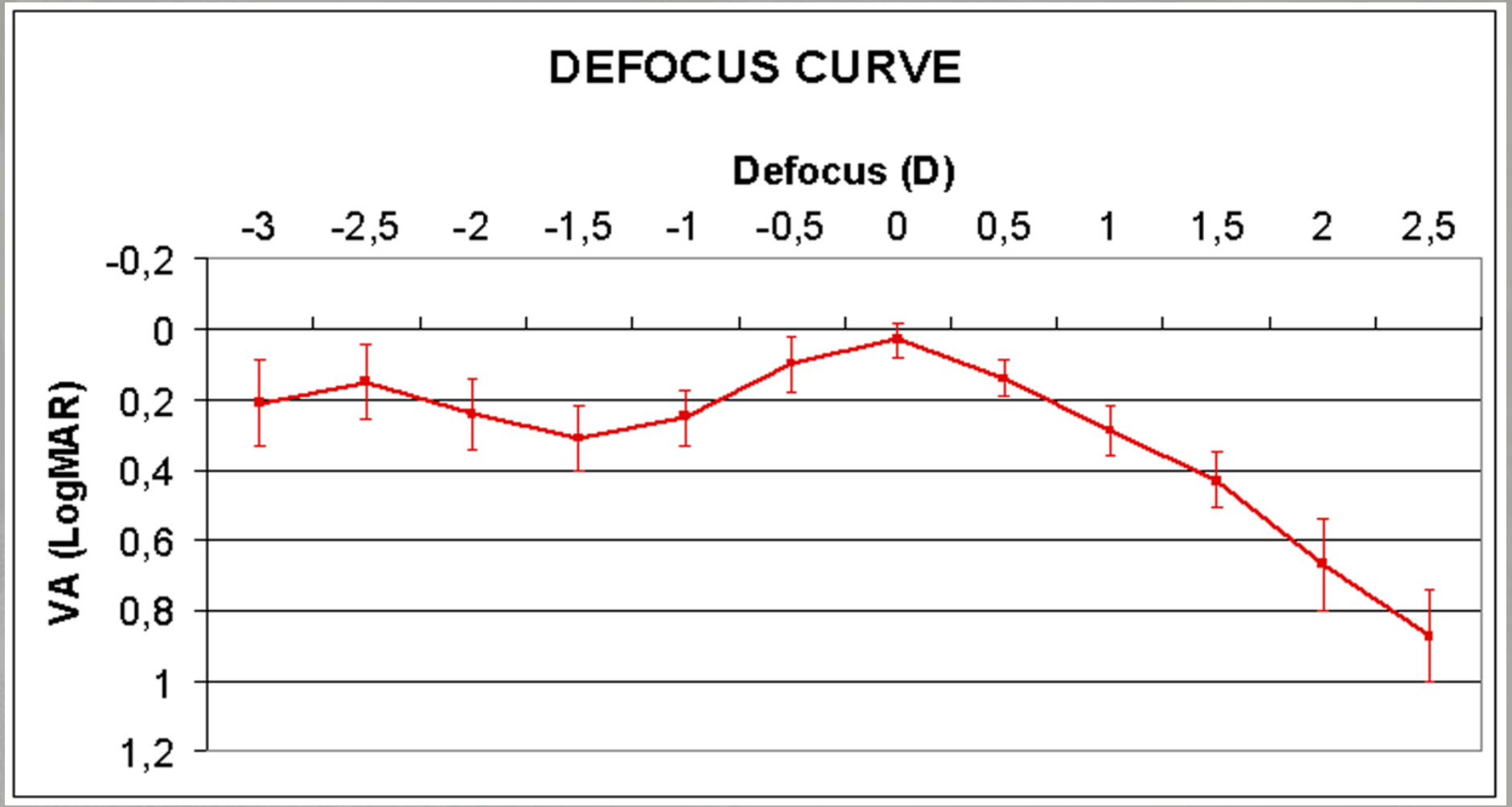
RESULTS

Significant improvement were observed in the uncorrected distance visual acuity (UDVA), in corrected distance visual acuity (CDVA), uncorrected near visual acuity (UNVA) and in the corrected near visual acuity (CNVA) ($p<0.01$)



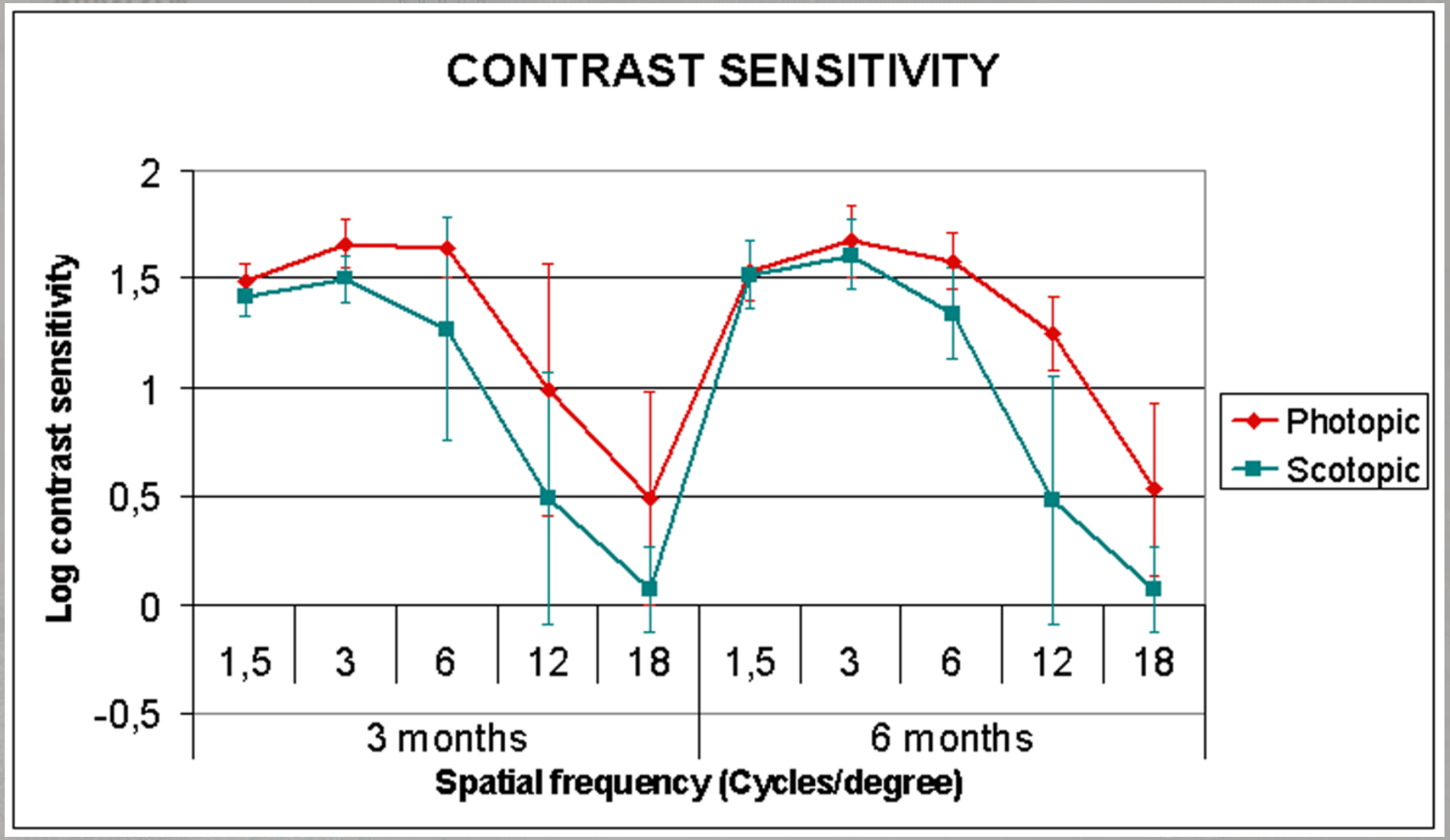
RESULTS

This IOL provide two peaks of maximum vision, one at distance (0D defocus level) and one at near (-2.5D defocus level). Intermediate vision was maintained no worse than 0.3 LogMAR



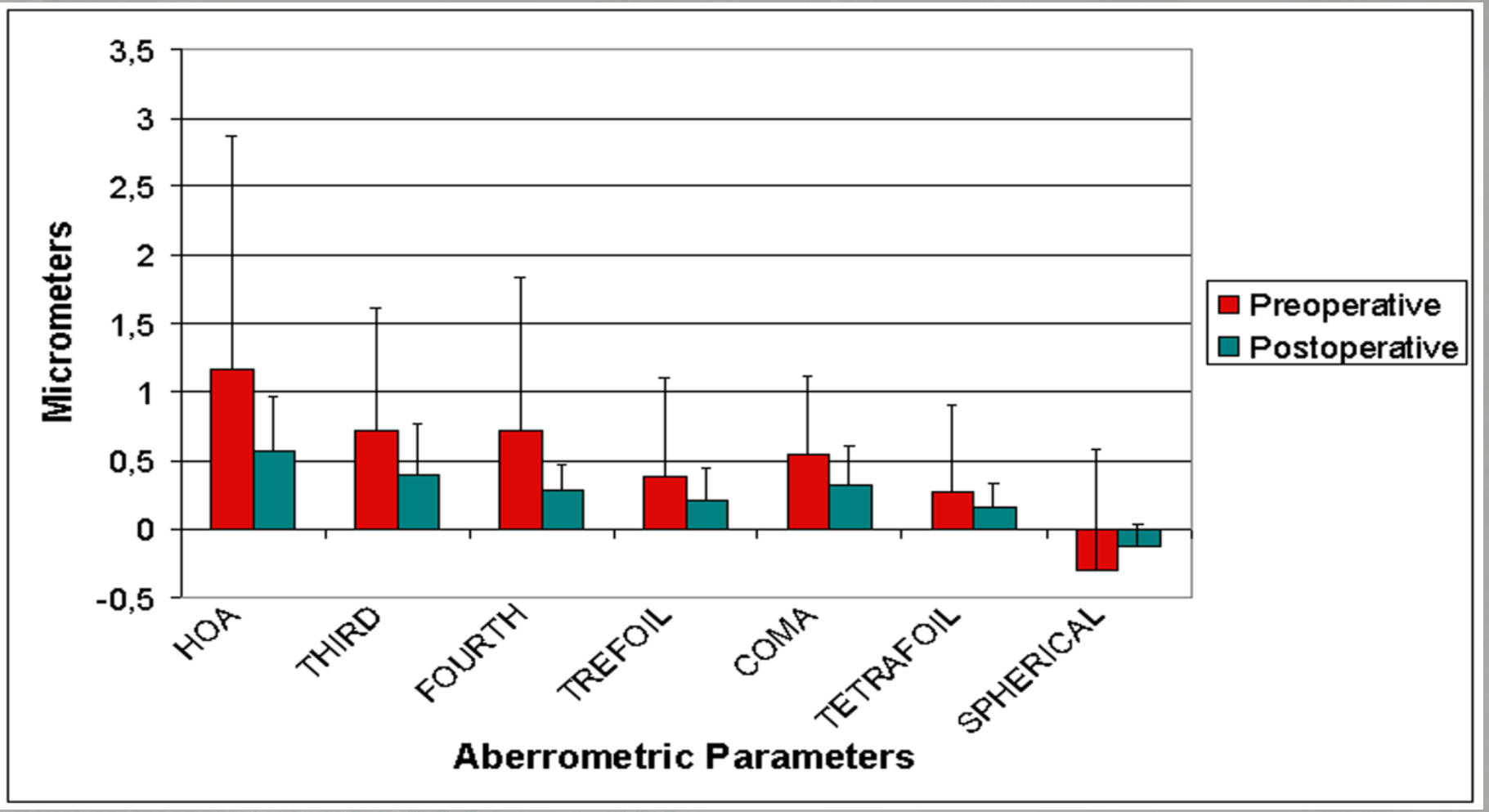
RESULTS

A significant increase in scotopic contrast sensitivity was detected only for 6cyclcles/º spatial frequency during the follow-up (p=0.04)



RESULTS

At 6 months after surgery, there was a significant reduction for the RMS of the internal high order aberrations, coma aberration, third and forth order aberrations ($p \leq 0.03$).



CONCLUSIONS

- The SeeLens MF IOL can restore distance and near vision in presbyopic patients undergoing cataratct surgery

- This new IOL provides functional intermediate vision with an adequate intraocular optical quality performance which places this IOL as a suitable choice within the different alternatives of diffractive multifocal IOL

- Further long term studies with a larger sample of patients should be performed in order to confirm the outcomes observed in the current investigation.

Chairman & Medical Director:
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THANK YOU