

11:00 - 12:30 IOLs multifocal

Red 1-2 - podium 1

CHAIR : LUCIO BURATTO



Tiago Ferreira

Comparison Of Visual Outcomes Of A Monofocal, Two Enhanced Monofocal And Two Extended Depth-Of-Focus Intraocular Lenses

COMPARISON OF VISUAL OUTCOMES OF A MONOFOCAL, TWO ENHANCED MONOFOCALS AND TWO EXTENDED DEPTH-OF-FOCUS INTRAOCULAR LENSES



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METHODS

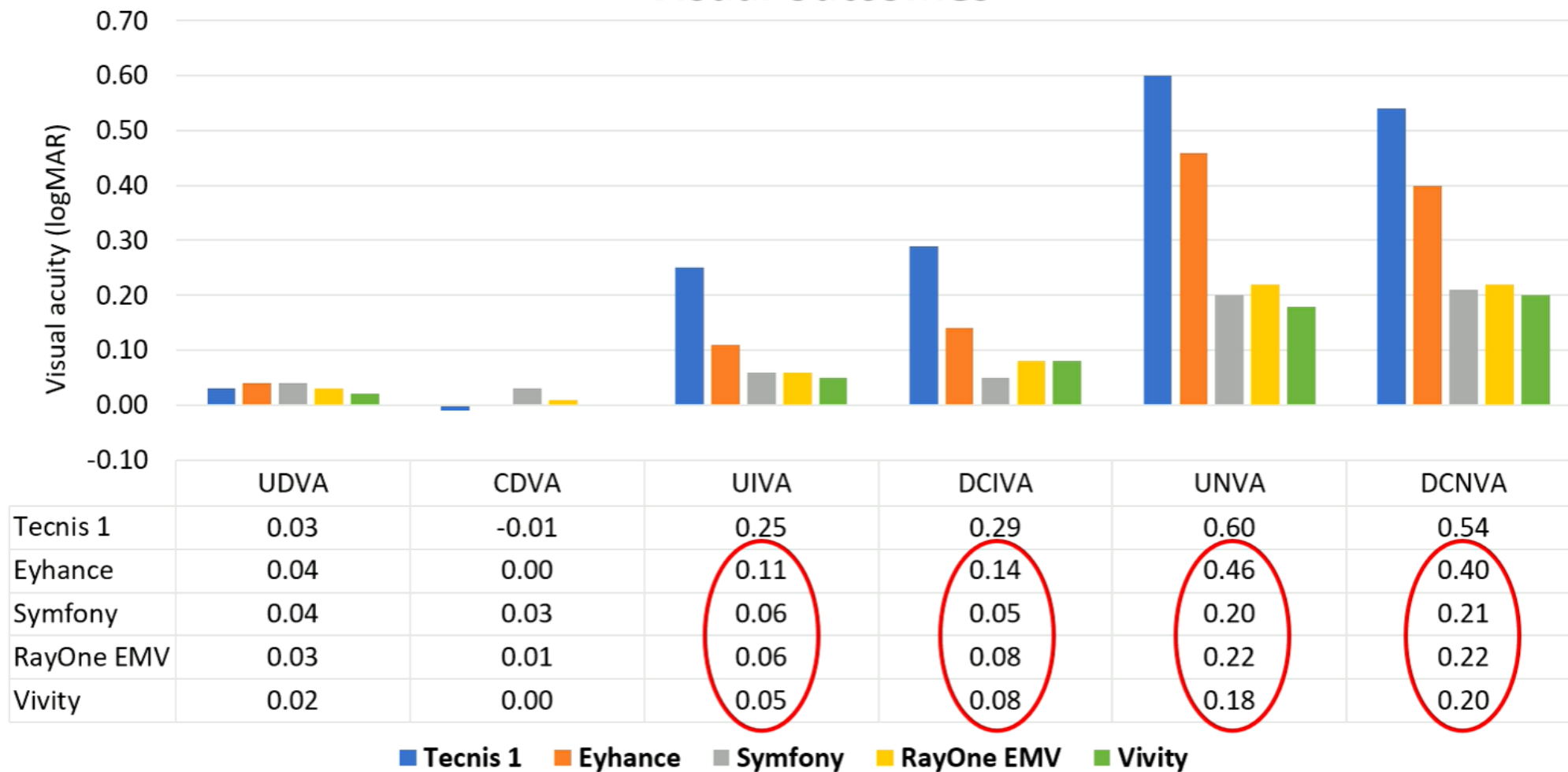
- ✓ Prospective comparative case series of 300 eyes of 150 patients enrolled in 5 groups:
 - ✓ J&J Tecnis 1 group (30 patients)
 - ✓ J&J Tecnis Eyhance group (30 patients)
 - ✓ Rayner RayOne EMV group (30 patients)
 - ✓ J&J Symphony group (30 patients)
 - ✓ Alcon Acrysof IQ Vivity group (30 patients)
- ✓ Outcomes in terms of visual acuity (VA), defocus curves, contrast sensitivity function (CSF), photic phenomena and spectacle independence evaluated at 3-months follow-up

COMPARISON OF MONOFOCAL, ENHANCED MONOFOCAL AND EDOF IOLS



RESULTS

Visual outcomes



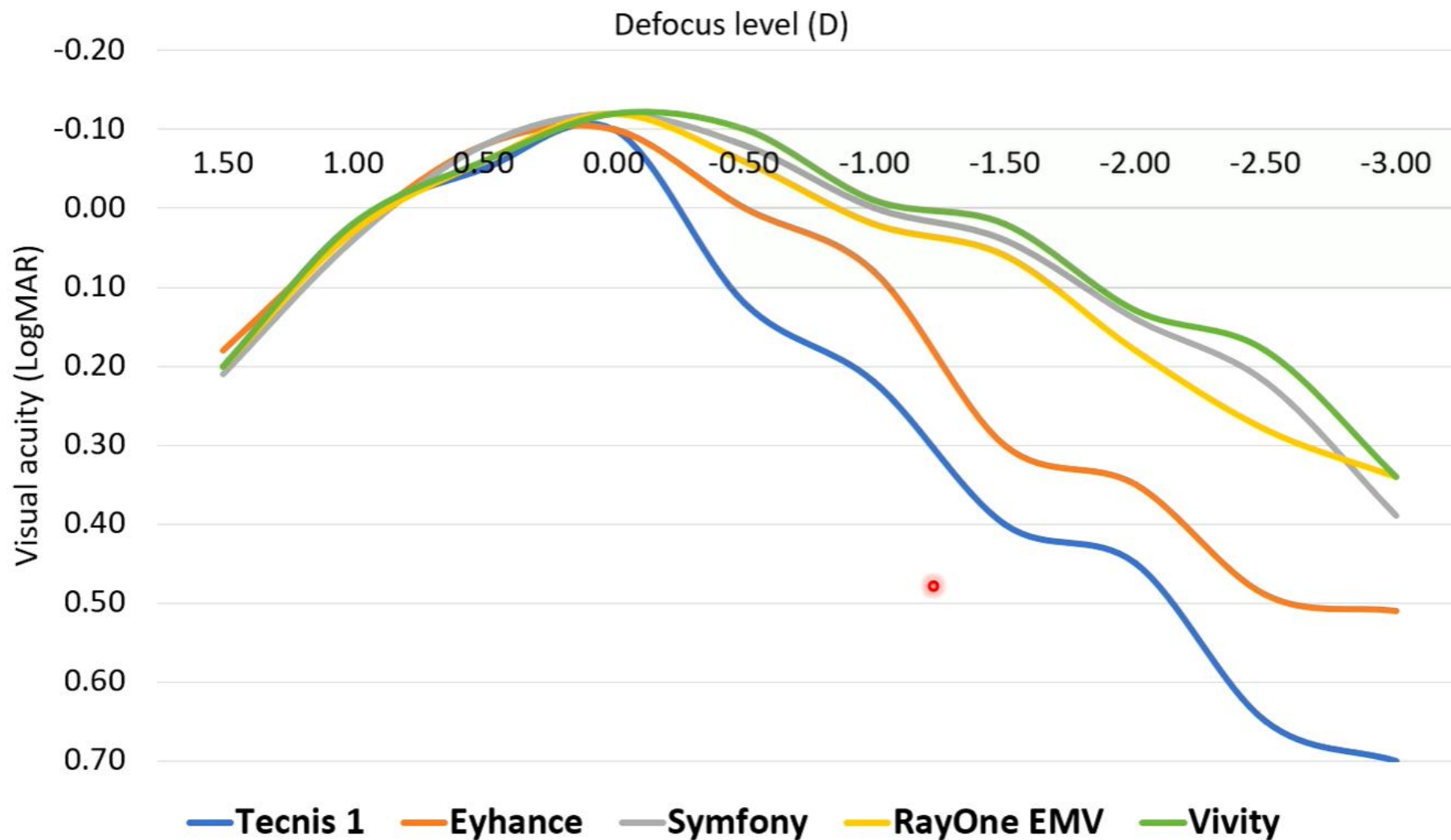
P<.05

UDVA, uncorrected distance visual acuity; CDVA, corrected distance visual acuity; UIVA, uncorrected intermediate visual acuity; DCIVA, distance-corrected intermediate visual acuity; UNVA, uncorrected near visual acuity; DCNVA, distance-corrected near visual acuity



Results

Binocular photopic defocus curves



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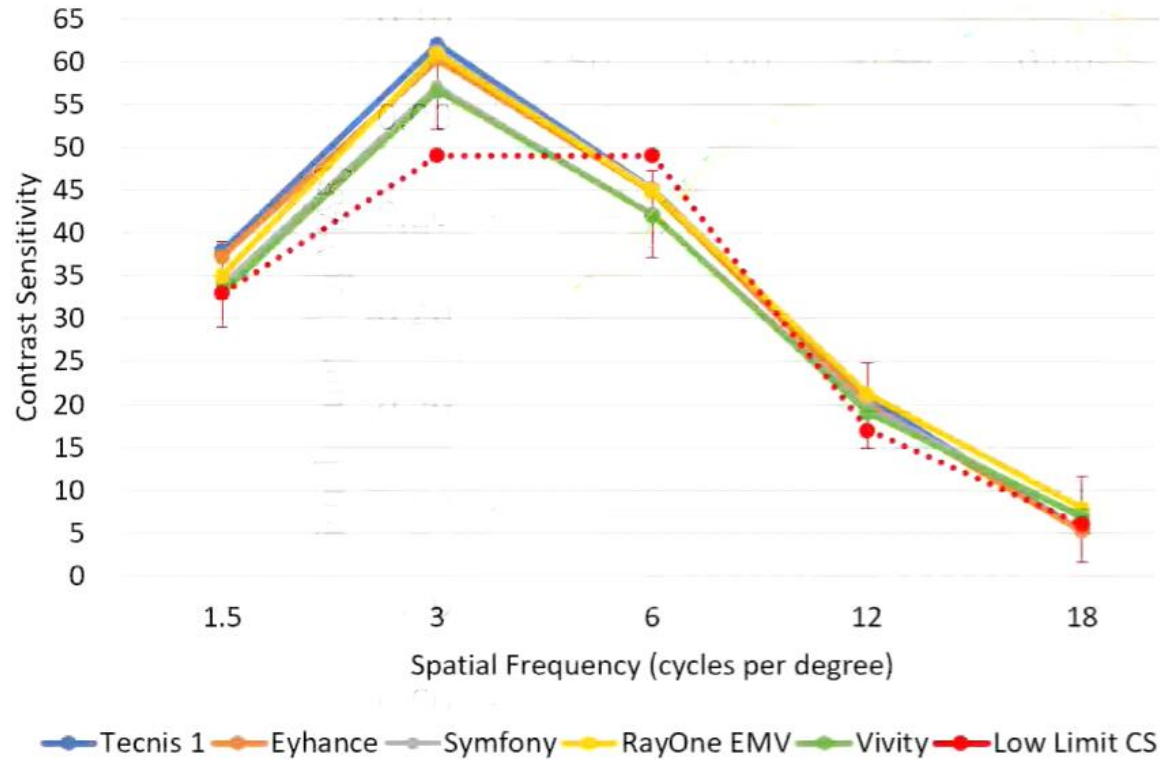
COMPARISON OF MONOFOCAL, ENHANCED MONOFOCAL AND EDOF IOALS

RESULTS

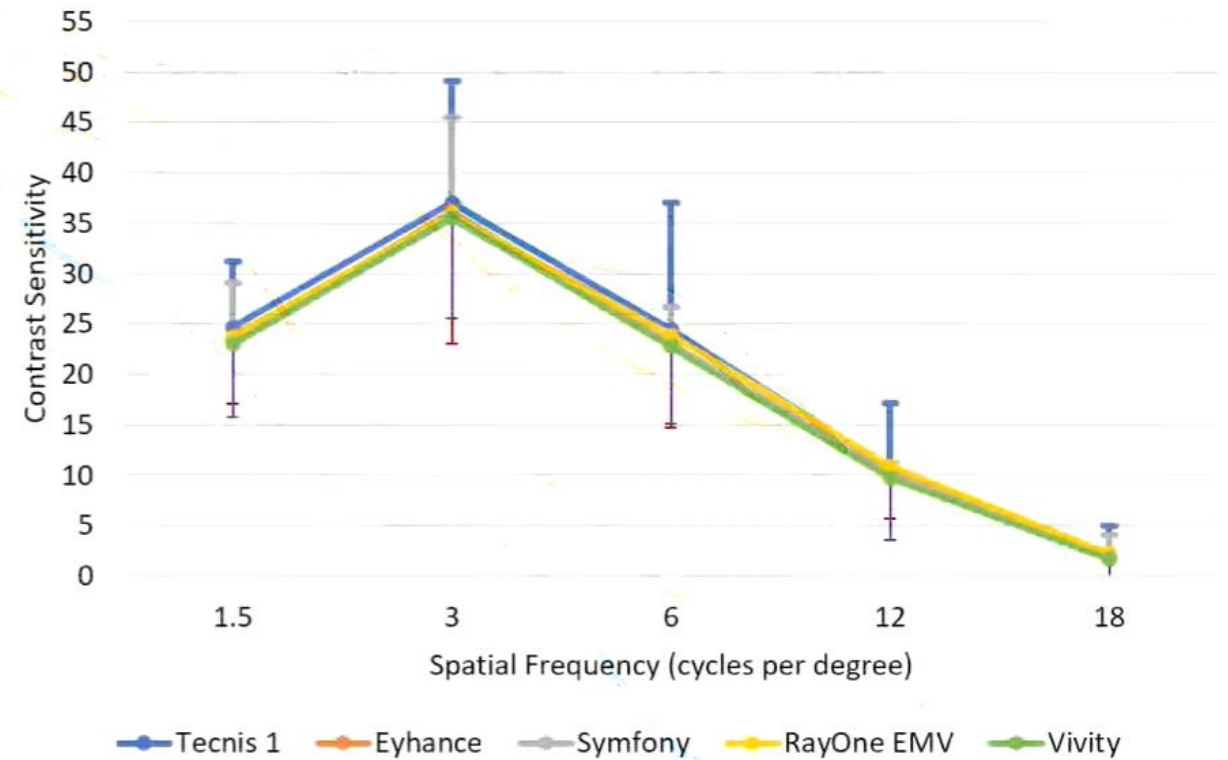
Comparison of the contrast sensitivity curves

mesopic conditions

Contrast sensitivity function (CSF) (photopic conditions)



CSF (mesopic conditions with glare)



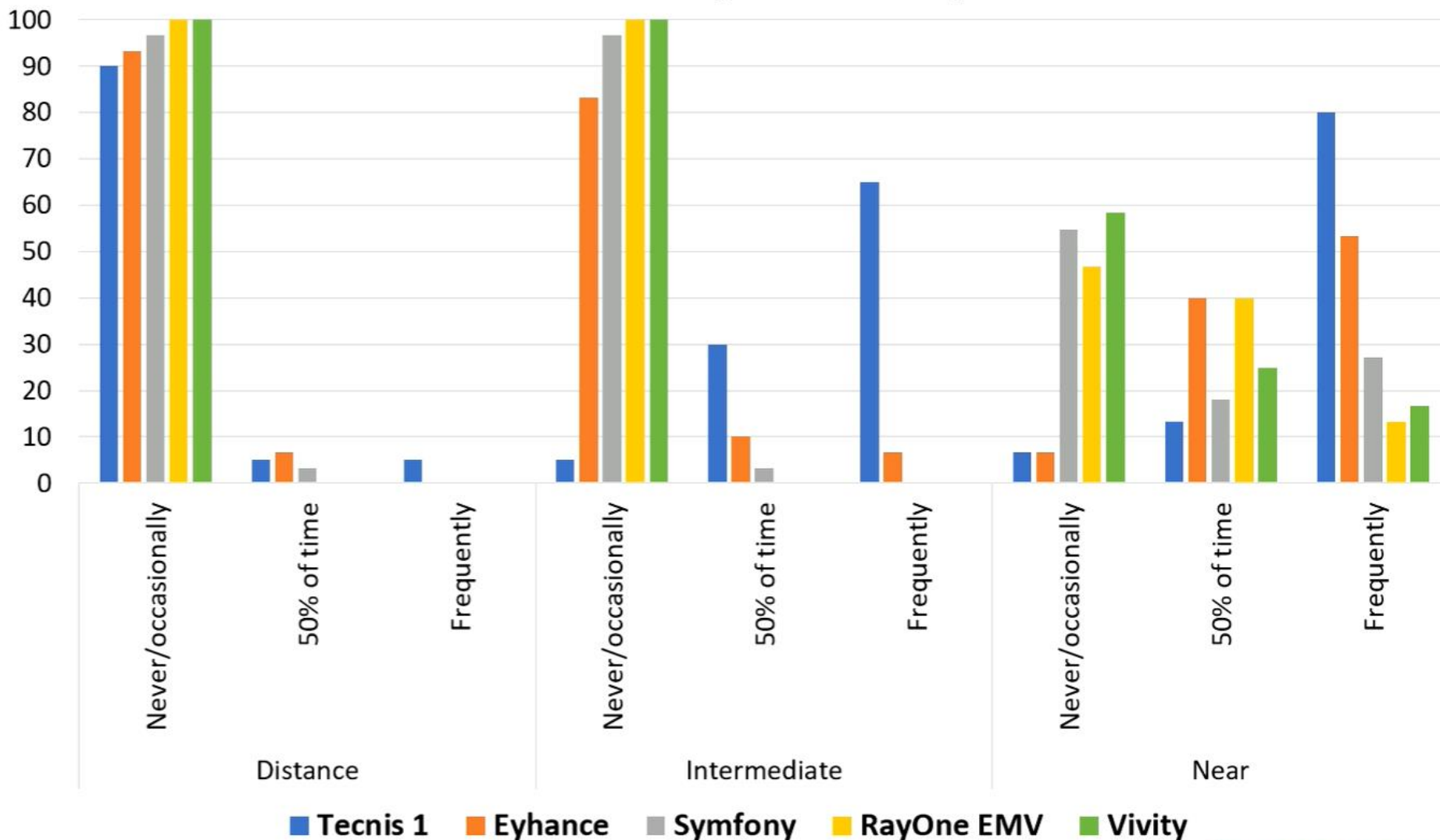
No significant differences between groups

COMPARISON OF MONOFOCAL, ENHANCED MONOFOCAL AND EDOF IOALS



Results

How often do you wear spectacles?



Spectacle independence:

Tecnis 1 – 3.3% ←

Eyhance – 26.7% ←

Symphony – 63.3 %

RayOne EMV – 66.7%

Vivity – 70.8%



CONCLUSIONS

- ✓ The investigated IOLs provided an excellent **distance VA**
- ✓ **Intermediate and near VA** was better with the enhanced monofocal and EDOF IOLs
- ✓ The new enhanced monofocal and EDOF IOLs offered:
 - ✓ Excellent VA between +1.00 D and -2.00 D of defocus
 - ✓ CS like a monofocal IOL
 - ✓ Low prevalence of photic phenomena
 - ✓ High rates of spectacle independence