Comparison of visual performance of 2 diffractive trifocal intraocular lenses: a randomised controlled trial

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Study design

• randomized, double-masked trial
• 88 eyes of 44 patients
  • randomized assignment of IOL
    – one eye AT LISA tri 839 MP (Zeiss)
    – other eye RayOne Trifocal (Rayner)
Uncorrected VA

Distance corrected VA

n = 40

Ray One Trifocal
AT LISA tri

p=0.707   p=0.460   p=0.327
p=0.527   p=0.519   p=0.193
Defocus curve

diopters

-4  -3.5  -3  -2.5  -2  -1.5  -1  -0.5  0  0.5  1  1.5  2

logMAR

-0.1  0.0  0.1  0.2  0.3  0.4  0.5  0.6

p=0.167

p=0.016

p=0.121

RayOne Trifocal  AT LISA tri
Conclusions

RayOne Trifocal showed...

- slightly better (n.s.) UCNVA and DCNVA
- significantly better VA in intermediate zone in defocus curve
- no significance concerning halos

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