Autorefraction versus manifest refraction in patients with keratoconus

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Autorefraction versus manifest refraction in KC

Autorefraction and manifest refraction show excellent comparability in healthy eyes\textsuperscript{1,2}, but does this hold up for KC as well?

Methods

- 90 eyes of 61 keratoconus patients underwent both automated and manifest refraction in random order
- Same optometrist, same room conditions

- Sphere, cylinder, axis, UDVA, CDVA, Scheimpflug tomography
- Vector analysis
- Multivariate component analysis

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Results

• Significant difference between both techniques (4.63 D)

• Better visual acuity with manifest refraction (0.06 vs 0.28 logMAR)
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- Multivariate analysis indicated maximum keratometry as independent factor for this effect: