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Clinical assessment of a Novel multicolor-spot reflection Topographer with Scheimpflug Tomography and Placido Topography in Normal Eyes

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Financial Disclosure

- We have the following financial interests or relationships to disclose:
 - AJK: Consultant for Alcon/WaveLight, Avedro
 - GA: Consultant for Alcon/WaveLight
 - ID: none



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Purpose

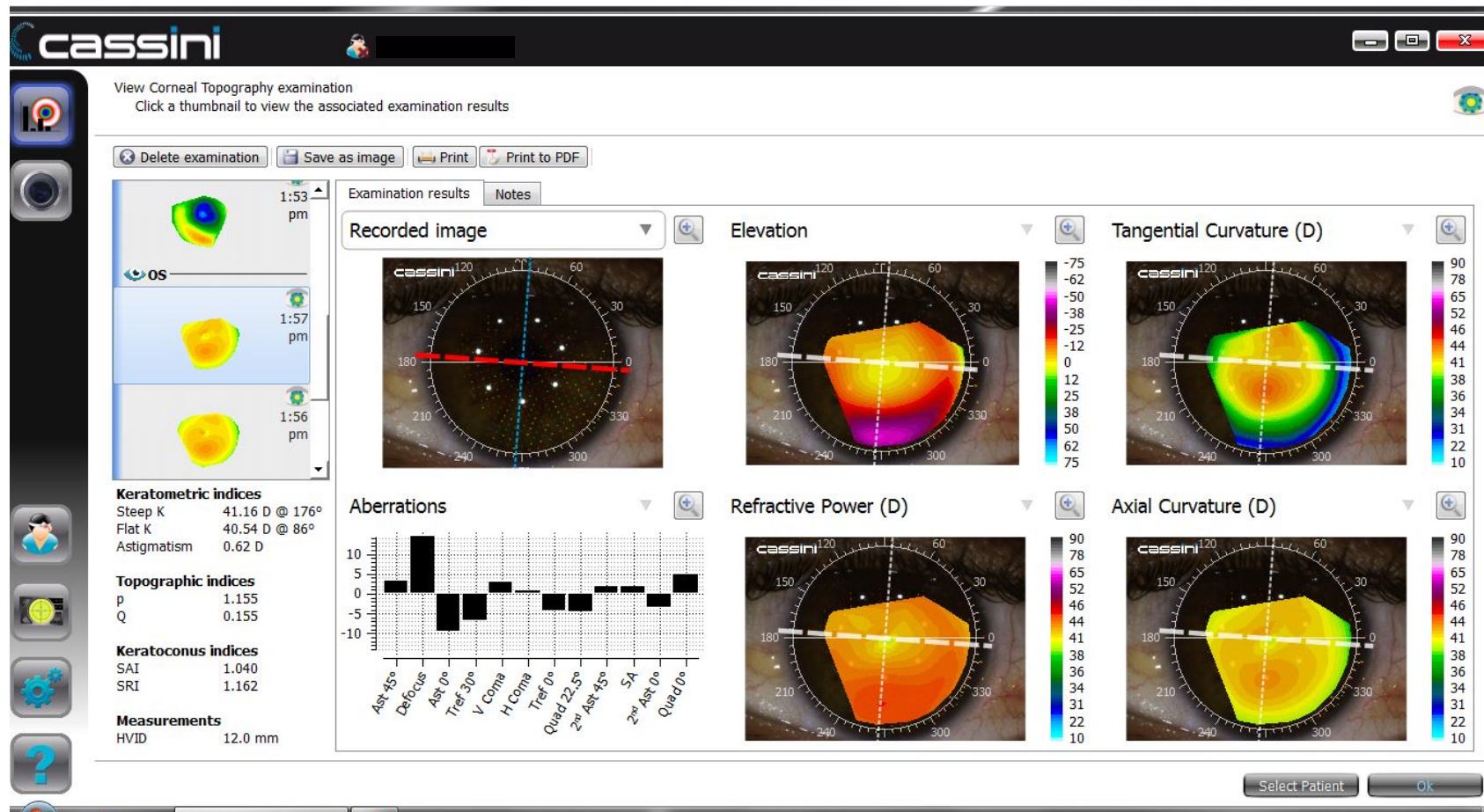
- To evaluate a novel, multicolored-spot reflection topographer in the clinical practice.



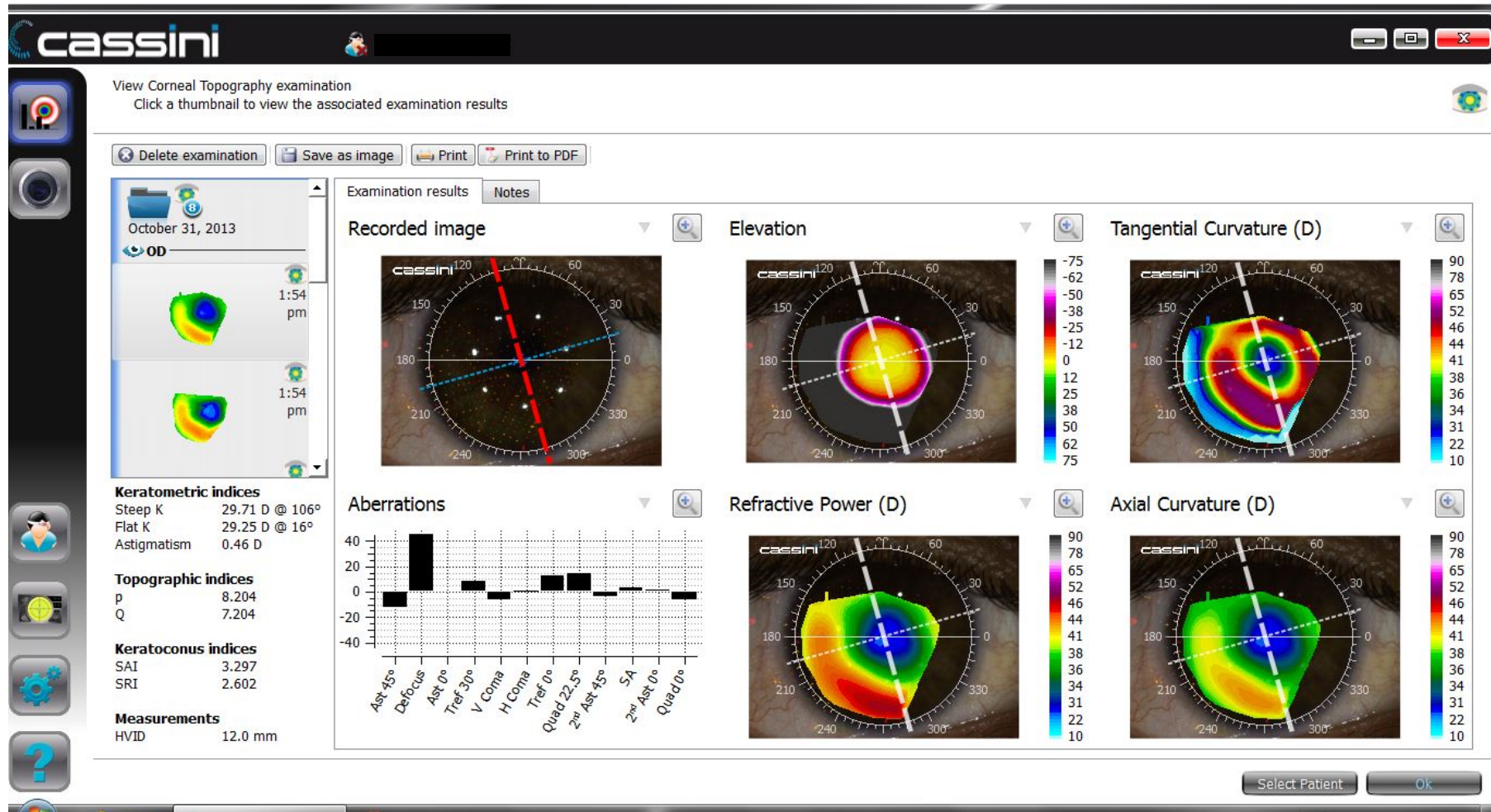
A. John Kanellopoulos and George Asimellis, *Forme Fruste Keratoconus Imaging and Validation via Novel Multi-spot Reflection Topography*. *Case Reports in Ophthalmology* 2013;4(3):199–209



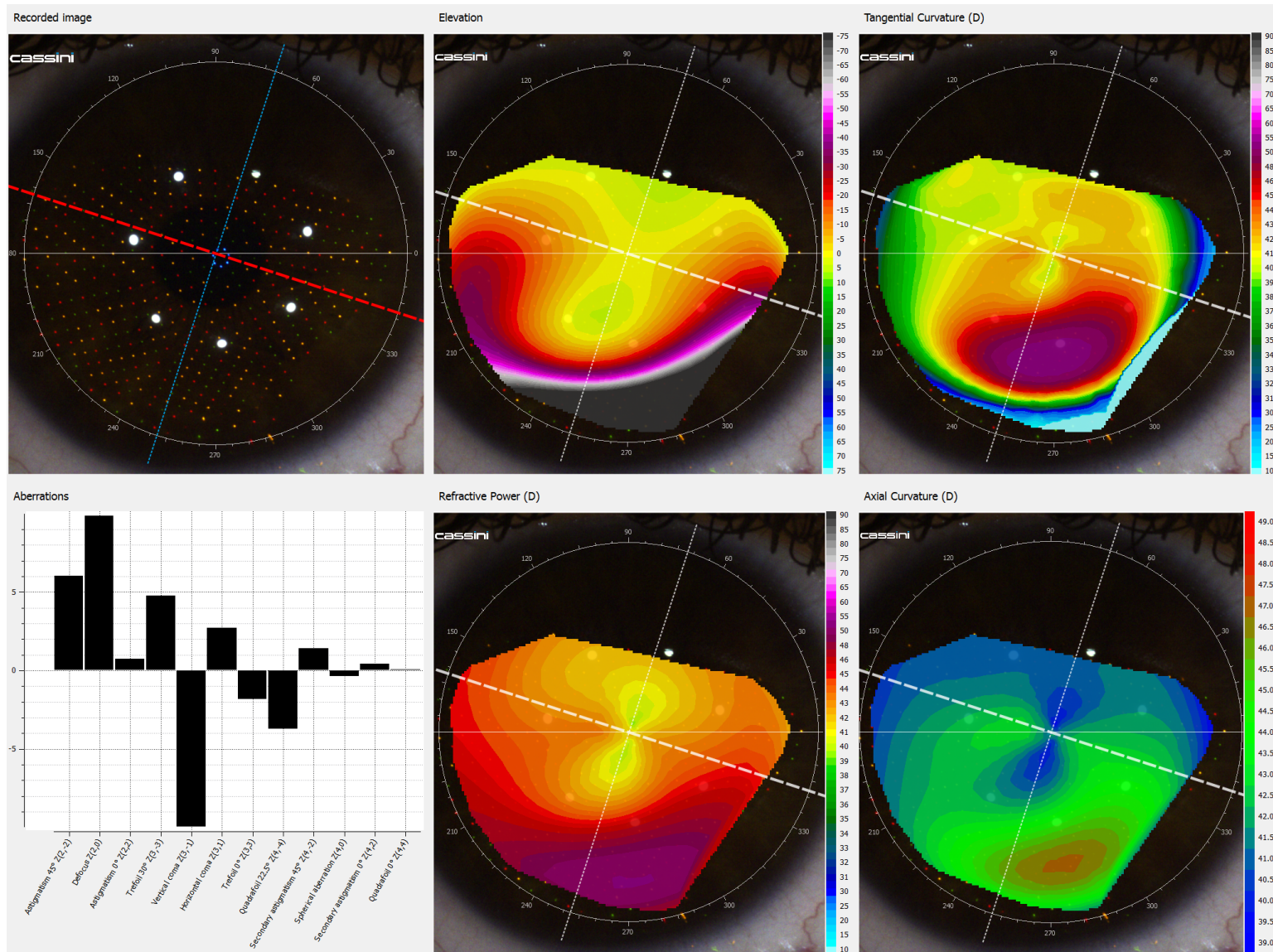
Keratometry in D, shape factors and IOL implantation guidance axis



Cross-linking Imaging



Keratoconus Imaging



Methods

- Steep and flat keratometry and surface regularity were investigated in 195 healthy corneas, age 35 ± 17 years with:
 - Multicolored-spot reflection topography (Cassini, i-Optics),
 - Placido topography (Topolyzer-Vario, WaveLight) and
 - Scheimpflug topometry (Oculus, WaveLight).

Results

- Mean keratometry was:
 - for Cassini 43.5 ± 2.00 D,
 - Vario 43.8 ± 2.3 D and
 - Oculus 43.7 ± 1.9 D.
- The differential between Cassini-Vario was -0.3 D and between Cassini-Oculus -0.2 D



Conclusions

- The new multicolored-spot reflection based corneal topography system provided repeatable keratometry measurements with high specificity and sensitivity in normal corneas.

