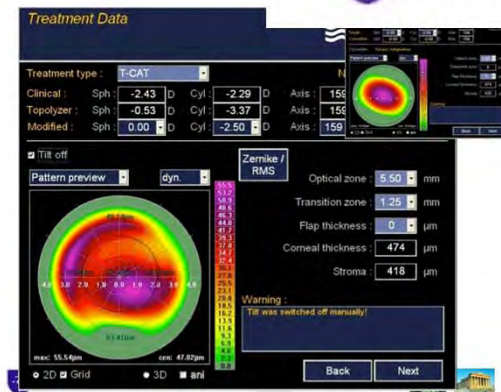
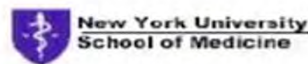


Customised bioptics with topography-guided laser refractive enhancements (tGLRE).

Kyros Moutsouris, MD

A. John Kanellopoulos, MD

Laservision.gr Institute, Athens, Greece



A. John Kanellopoulos, MD
Professor of Ophthalmology, NYU Medical School
Laservision.gr Institute, Athens, Greece

Financial Interests: Alcon, Wavelight



Methods:

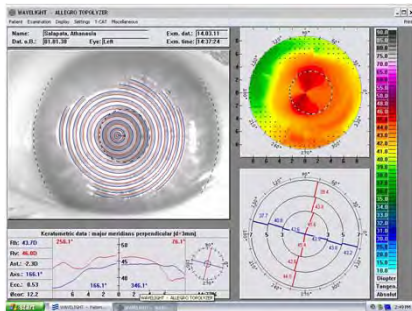
- 31 eyes of 18 consecutive patients that had underwent previously one of the following procedures:
- Multifocal, toric, accommodating or phakic IOL implantation, DSEK, lamellar or penetrating keratoplasty were treated with topo-guided PRK or LASIK and were evaluated pre- and 6 months post-operatively for: age, UCVA, BSCVA, refraction, topography, endothelium (ECC), and possible complications.



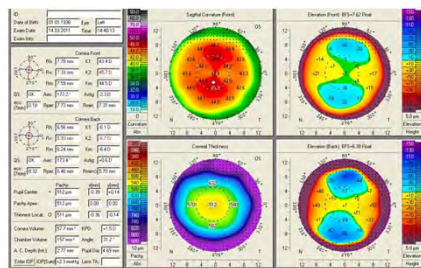
Topography-guided on the EX500

Not available yet in the US

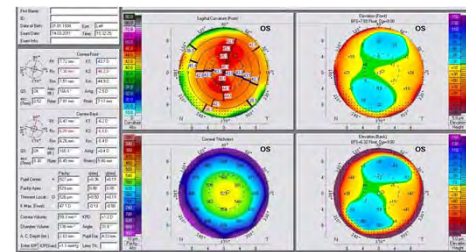
3 available diagnostics:



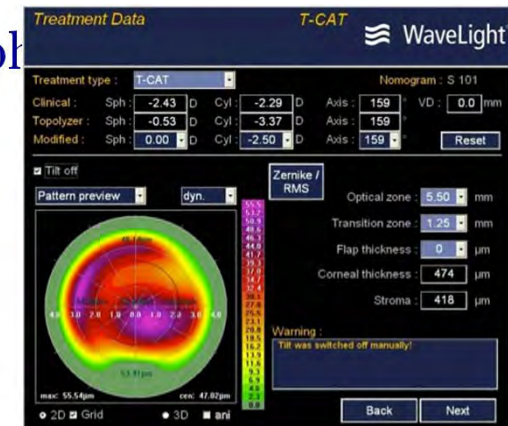
Topolyzer: Placido disc topography



Oculyzer (Pentacam)



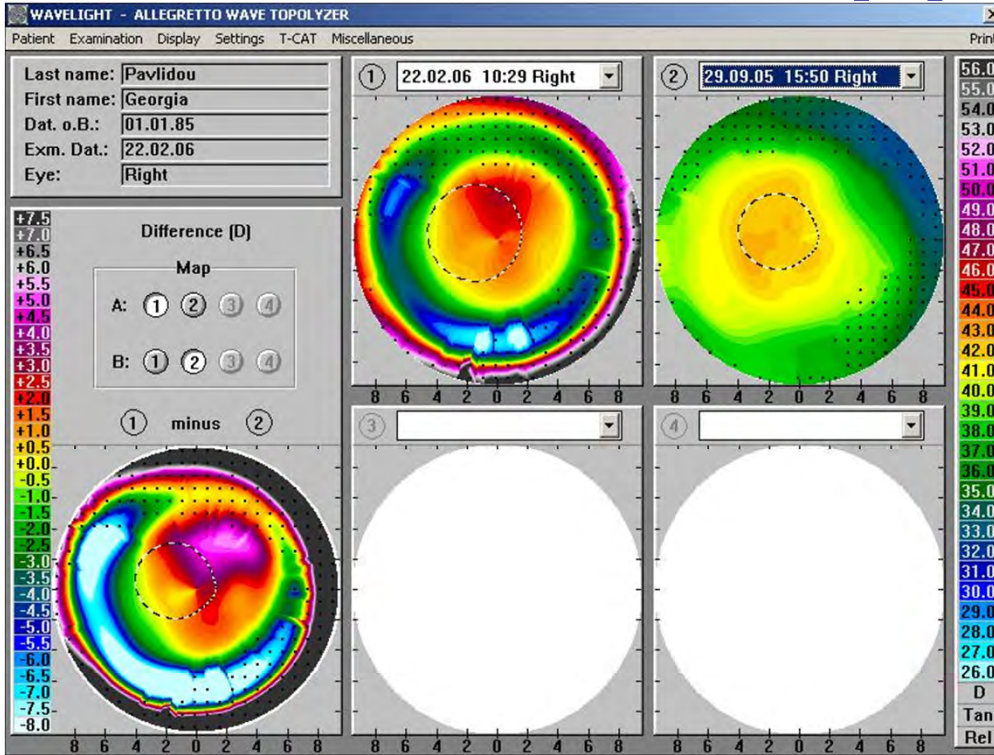
Oculyzer II (Pentacam HD)



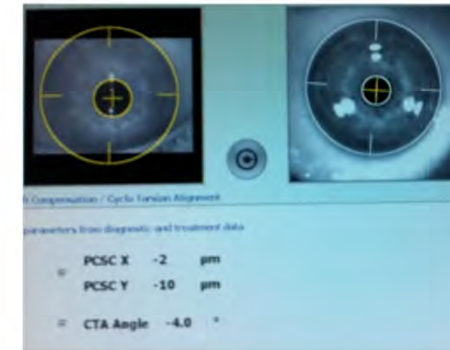
Topo-guided partial PRK-keratoconus



Hyperopic pt had Restor and residual +1 -0.75 @35 due to angle kappa treatment axis centered on the visual axis and not pupil center

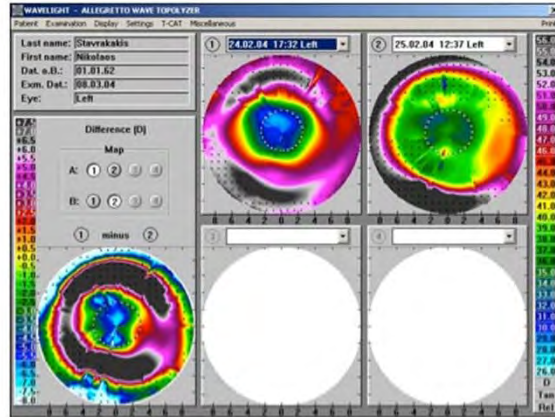


Vario pupil match and cyclorotation
detection and correction

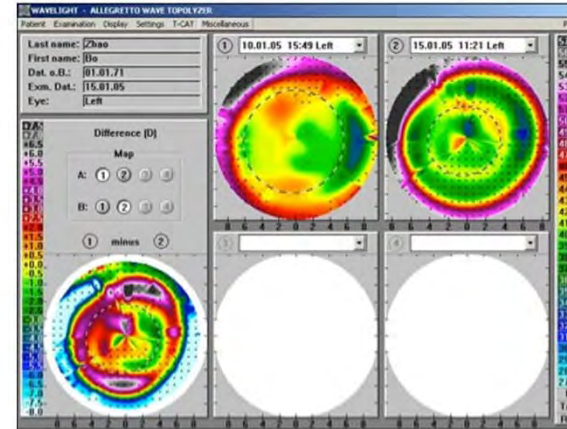


Enlarging optical zone-RK

10 year post-RK, Post-LASIK: +2,50 -1,50Cyl, debilitating night vision. P topo-guided -0.50 -0.50 marked improvement

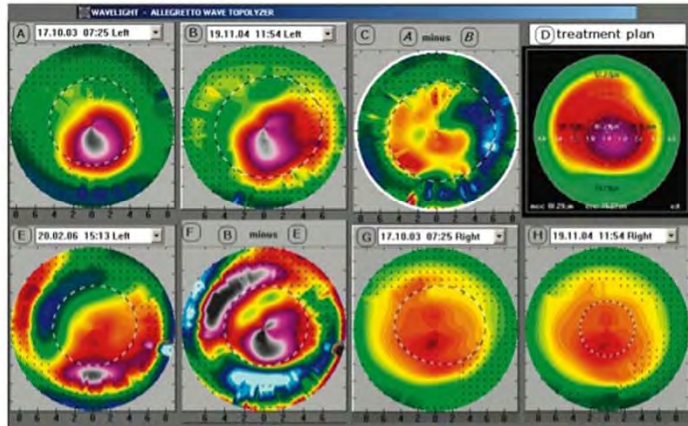


Re-centering OZ, smoothing irregularities (Loss of K sliver in recuts)



Over the last 7 years we have treated over 800 cases of KCN and ectasia with CXL

J Cornea August 2007

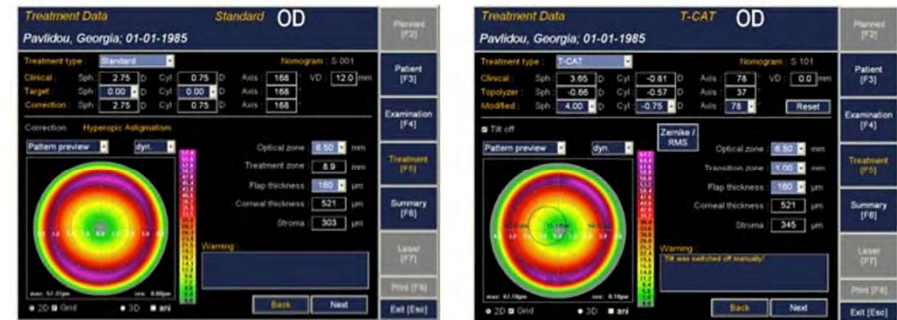


Collagen Cross-Linking (CXL) With Sequential Topography-Guided PRK: A Promising Alternative for Anterior Keratoconus

Kanellopoulos, MD et al. J Cornea 2007

CXL followed 6 months later by a partial tPRK

Angle kappa adjustment topo-link



These figures depict the same planned excimer profile for the correction of hyperopic astigmatism on the left: centered on the pupillary center and on the right: adjusted by topography to take into consideration and adjust for angle kappa

- **Results:** There were 21 LASIK and 10 PRK. The mean age was 57 years (27 to 78) and mean values pre- and post-op were respectively: UCVA: 20/50, 20/25, BSCVA: 20/40, 20/25, Spherical equivalent reduction from 2.2 to 0.6 diopters, ECC: 1850, 1650, Follow-up: 5.5 months (3 to 38). No complications were encountered in his small group.
- **Conclusions:** Customised bioptics with topography-guided laser refractive enhancements appear to be a safe and effective step in the bioptics visual rehabilitation of this variable group of cases.

