

# Study Spotlight: ZEISS VISULYZE - ambispective single site trial



Seeing beyond

Study shows significantly improved predictability for SMILE (KLEx) treatments with VISULYZE

## Source



### Title

Refractive Predictability After Keratorefractive Lenticule Extraction Using a New Nomogram Creation Software Tool Compared to a Matched Control



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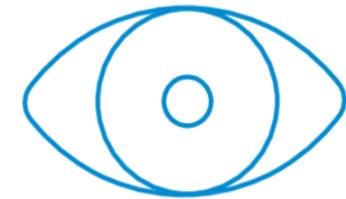
### Publication

Journal of Clinical Ophthalmology Surgery: [June 2025](#)  
[DOI:10.12147/OPHTH.S544117.](#)

## Methodology

- Comparing KLEx with ZEISS SMILE outcomes using ZEISS VISULYZE nomograms versus a control group
- Ambispective, single-site, matched case-control study
- Surgeries were performed on a ZEISS VisuMax at West China Hospital, Sichuan University
- Included were Adults  $\geq 18$  years, - 05.50 to - 8.00 D spherical equivalent, up to - 2.00D cylinder
- Main measure was refractive predictability at 3 months post-op: % of eyes within  $\pm 0.50D$  of target SEQ and residual astigmatism  $\leq 0.50D$ .  
Secondary measures included UDVA and CDVA, safety and stability

## Sample Size



**180 eyes** of which 90 treated prospectively with VISULYZE & 90 retrospectively matched controls

## Results

**Using VISULYZE nomogram software in SMILE surgery significantly improves predictability and accuracy of outcomes without compromising safety, offering a value tool for optimization of patient results.**

### Visual Outcomes

Both groups: 99% achieved UDVA 20/20 or better 3 months post-op.  
60% of VISULYZE eyes gained  $\geq 1$ -line CDVA vs. 44.4% in controls.  
No eye in either group lost a line of CDVA

### Prediction & Accuracy

VISULYZE: 98.9% within  $\pm 0.50D$  of SEQ target vs. 85.6% in controls ( $p < 0.001$ ).

### Astigmatism

VISULYZE: 100%  $\leq 0.50D$  residual astigmatism vs. 93.3% in controls ( $p = 0.006$ )  
Better correlation for cylinder correction ( $R^2 = 0.8996$  vs.  $0.5992$ )  
Smaller angle of error ( $2.7^\circ$  vs.  $6.0^\circ$ ,  $p = 0.002$ )

## VISULYZE improves refractive accuracy for SMILE compared to control group

Consistent Cohort | n = 180 eyes

