Study Spotlight: Handling and implantation behavior of ZEISS CT LUCIA 611P/PY

Seeing beyond

ZEISS CT LUCIA 611P/PY has a shorter unfolding time and less spherical aberration (SA) and coma than J&J TECNIS-1

Source

Title
Comparison of Clinical Results, Contrast Sensitivity and Optical Quality Following the Implantation of CT LUCIA 611P and TECNIS-1 ZCB00 Monofocal IOLs -12 Month Outcomes

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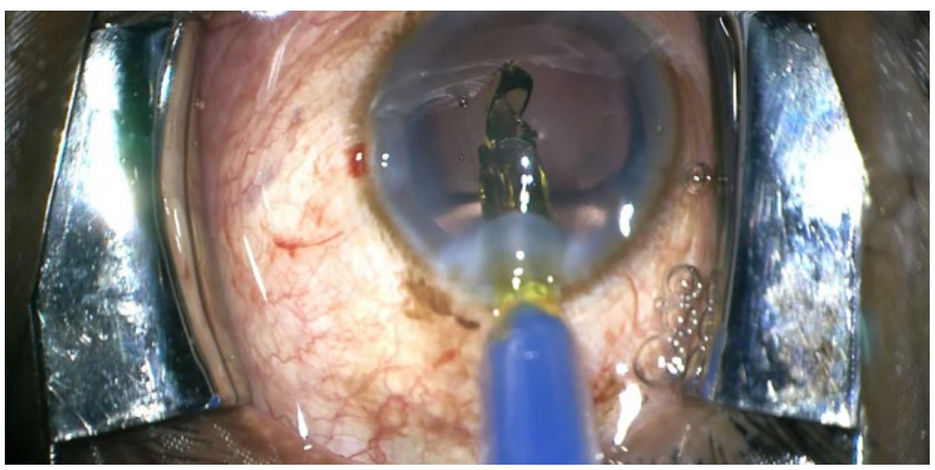
Methodology

- Institutional review board – approved clinical trial
- First eye of 100 patients (the first 50 eyes received ZEISS CT LUCIA 611P/PY, while the next 50 were implanted with J&J TECNIS-1 ZCB00
- Patients were recruited to the study groups on the basis of their age and preoperative biometric characteristics
- All operations were performed by the same surgeon using the same technique and phacoemulsification unit
- Unfolding time measurements and any injection administration problems and/or other delivery complications were recorded
- Clinical outcomes were recorded at 1D, 2W, 6W, 6M, 12M

Results



Implantation of the preloaded ZEISS CT LUCIA 611P/PY

- The preloaded ZEISS CT LUCIA 611P/PY showed shorter unfolding times and fewer IOL delivery problems compared to the IOL manually loaded system
- It also possibly further reduces the risk of complications such as capsular bag damage
- Mean operative **unfolding time was significantly shorter for ZEISS CT LUCIA 611P/PY** (12.93 ± 3.8 vs. 35.16 ± 10.5 seconds for TECNIS-1)
  ▶ possibly due to the improved material, now with surface coating, or due to the higher glass transition temperature of ZEISS CT LUCIA 611P/PY (13.8 °C vs. 11–12 °C)
- No complications during surgery or after one year and no PCO treatment was required in either group
- For both groups of eyes, the refractive outcomes were excellent and visual function and quality, including mean total higher order aberration (HOA), coma and SA, were similar.
- Mean **SA and coma** values, which are derived from the IOL, were significantly **lower for ZEISS CT LUCIA 611P/PY**

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