Outcomes of post-SMILE Cataract Surgery: Multifocal IOL Implantation

CASE OF THE MONTH

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Outcomes of post-SMILE Cataract Surgery

We calculated the prediction errors for formulae incorporating an IOL calculation with a single device, avoiding any need for using third-party software or online calculators.

Preoperative diagnostic assessments included Scheimpflug imaging with the Pentacam (Oculus) for topography and corneal aberrometry along with the IOLMaster 700 (Carl Zeiss Meditec) for biometry. Zernike analysis showed positive spherical aberration of 0.677 mm and 0.532 microns OS.

Surgery was planned for implantation of the AT LISA tri 839MP IOL (Carl Zeiss Meditec) and a plano target OU. IOL calculations were performed using multiple methods, and the results are summarized in Table 1.

We calculated the prediction errors for formulae incorporated in the IOL Master 700 and Barrett’s True K post-refractive surgery formula and found that the prediction error with the Barrett Universal II and Total Keratometry (TK) was lowest amongst the three (Table 2).

This case describes our first experience performing cataract surgery in a post-SMILE patient. Using the IOL-Master 700 for biometric measurements, including Total Keratometry, and IOL calculation, and by choosing the AT LISA tri 839MP IOL, we were able to achieve excellent refractive and functional outcomes despite these encouraging results, thorough counseling to establish realistic expectations about the potential for a less than perfect visual outcome remains a critical component of the preoperative discussion for all cataract surgery patients.

Dr. Ganesh is Chairman and Managing Director at the Nethradhama Super Specialty Eye Hospital, Bangalore, India. He is a consultant for Carl Zeiss Meditec. Dr. Brar is a senior consultant at the Nethradhama Super Specialty Eye Hospital.

This content is based on our own professional opinion and on our study results. It is not necessarily a reflection of the point of view of Carl Zeiss Meditec AG and may not be in line with the clinical evaluation or the intended use of their medical devices.

REFERENCES


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