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VISUAL AND REFRACTIVE OUTCOMES OF THE UNILATERAL SUPRACOR MULTIFOCAL CORNEAL LASIK PROCEDURE FOR THE CORRECTION OF HYPEROPIA AND PRESBYOPIA

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Background: To analyze the clinical outcomes after unilateral Supracor multifocal corneal Femto-LASIK in non-dominant eye for the correction of hyperopia and presbyopia.

Purpose: To assess the visual and refractive outcomes and complications of unilateral SURACOR multifocal corneal Femto-LASIK in non-dominant eye for the correction of hyperopia and presbyopia.

Setting: Eye research centre, Rassoul Akram Hospital, Iran University of Medical Sciences and Iranian Eye Clinic, Tehran, Iran.

Design: Prospective case series.

Methods: This study enrolled 26 eyes of 13 patients who had bilateral femto-LASIK for the correction of hyperopia plus SURACOR multifocal corneal Lasik in non-dominant eye. Monocular and binocular uncorrected (UDVA) and corrected distance visual acuity (CDVA), monocular and binocular uncorrected (UNVA) and distance-corrected near visual acuity (DCNVA) at 40 cm, Central corneal power and High order aberrations changes and complications were evaluated over 6 months.

Results: Mean age was 51.77 ± 3.74 years (range: 48 to 60 years). Mean postoperative spherical equivalent refraction was -0.07 ± 0.47 diopters (D) for dominant eyes and -0.85 ± 0.43 D for non-dominant eyes. Mean binocular UDVA was 20/25 at 6 months. Mean binocular UNVA was Jaeger 2 at 6 months. At 6 months, 100% of patients achieved 20/25 and could read Jaeger 2 binocularly. Mean non-dominant eye UDVA was 20/40 at 6 months. The mean central keratometry steepening was 2.54 D. There were significantly more negative spherical aberration and vertical coma in the central 6 mm postoperatively ($P < .05$). 98% of these patients did not need any glasses for distance and near vision.

Conclusions: Supracor procedure in non-dominant eye may improve functional near, intermediate, and distance vision without significant photic phenomena in presbyopic patients with low and moderate hyperopia.

Précis: Supracor procedure in non-dominant eye provided good refractive and visual outcomes at far, intermediate, and near distances without significant photic phenomena in presbyopic patients with low and moderate hyperopia.

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