

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo PIBIC

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Service (sector)
Refractive Surgery

Nº CEP

Efficacy Predictability and safety for topographic irregularity patients treated with LASIK.

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Purpose: To evaluate refraction results, efficacy, predictability and safety for patients treated with excimer laser in situ Keratomileusis (LASIK) who had preoperative corneal topographic irregularity.

Methods: A retrospective case series of patients who had topographic irregularities were treated with LASIK, from April 1996 to August 1999. The surgeries were performed with SUMMIT APEX PLUS laser. Forty patients were selected. Topographic irregularities were considered as: misaligned apex, curvature higher than 47D, asphericity higher than 2.5D, increased obliquity and asymmetry higher than 15°.

Results: Forty patients met the inclusion criteria. There were nine cases of misaligned apex, eight cases of curvature higher than 47 D, fifteen cases with asphericity higher than 2.5 D, five cases with obliquity and five cases with asymmetry higher than 15°. After the LASIK, 37.5% had no change in best-corrected visual acuity (BCVA), 15% lost a line in BCVA, 20% lost two lines in BCVA, 7.5% lost three lines in BCVA, 10% lost four lines in BCVA, 7.5% gained a line in BCVA and 2.5% gained three lines in BCVA. Seventeen patients (42.5%) had best corrected visual acuity of 20/20, four patients (10%) 20/25, six patients (15%) 20/30, seven patients (17.5%) 20/40, four patients (10%) 20/60, one patient (2.5%) 20/80 and one patient (2.5%). Follow Up ranged from six months to two years.

Conclusion: Based on these series, we conclude current Excimer laser refractive surgery may produce unpredictable results in patients with preoperative corneal irregularities.