

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo PIBIC

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Service (sector)

Refractive Surgery

Nº CEP

Laser assisted in situ keratomileusis for post radial keratotomy induced hyperopic

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Purpose: To evaluate laser in situ keratomileusis (H-LASIK) for post-radial keratotomy (RK) induced hyperopia.

Patients and Methods: H-LASIK was performed in 69 eyes of 47 patients, who had previously undergone RK. Mean follow-up was 9.4 ± 2.8 years after RK. The mean refractive error in spherical equivalent (SE), uncorrected visual acuity (UCVA) and best spectacle corrected visual acuity (BSCVA) before and after H-LASIK procedure are reported. Safety was also analyzed with a mean of 6.57 ± 3.15 months of follow-up.

Results: Mean preoperative SE was $+3.4 \pm 1.6$ D. Postoperatively mean SE was -0.32 ± 1.2 D. 79.7% of eyes (n=55) were between ± 1.0 D of emmetropia, and 88% of eyes within ± 2.0 D. Preoperative BSCVA was 20/20 in 53.6% of eyes (n=37) and 20/40 or better in 100% (n=69). Postoperative BSCVA was 20/20 in 55% of eyes (n=38) and 20/40 or better in 95.6% (n=66).

Preoperative UCVA was $\leq 20/50$ in 52 cases (75.4%). In the postoperative it was 20/20 in 13 cases (18.8%), $\geq 20/40$ in 45 cases (65.2%). Four eyes lost 2 Snellen lines due to epithelial in growth in the interface (n=3), and Sands of Sahara Syndrome (n=2). One of the eyes with Sahara also presented epithelial ingrowths and flap necrosis. Thirteen eyes lost 1 line and 50 eyes maintained or gained Snellen lines. There was no intraoperative complication besides incision opening (n=8) while lifting the flap, with no further complication to the patient. Those patients did not loose any Snellen line of their BSCVA.

Conclusion: H-LASIK can be successfully used to correct residual refractive errors after radial keratotomy.