

FIVE-YEAR FOLLOW-UP OF SMALL INCISION LENTICULE EXTRACTION IN HIGH MYOPIA

Ali Demircan

Beyoglu Eye Education and Research Hospital, Istanbul, Turkey

The aim of this study is to report long term visual and refractive results of small incision lenticule extraction (SMILE) in treatment of high myopia. For this purpose medical records of patients who underwent SMILE for surgical correction of myopia or myopic astigmatism were retrospectively reviewed. Only patients with a preoperative spherical equivalent of subjective manifest refraction (SE) ≥ 6 D and a postoperative follow-up of 5 years were included in the study. Uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), and manifest refraction SE were analyzed pre-operatively and at 1-, 3-, and 5-year post-operative periods. Preoperative and postoperative complications were also recorded. Thirty-seven eyes of 24 patients were included in the study. Eight (33%) patients were male and 16 (67%) were female. Mean patient age was 31 ± 10 years. The mean preoperative SE was -7.82 ± 1.35 diopters (D) (range -6.00

to -11.00 D) and mean attempted correction was -7.47 ± 1.10 D (range -6.00 to -10.00 D). Mean preoperative UDVA and CDVA were 1.41 ± 0.18 and 0.12 ± 0.12 logMAR, respectively. At the 5-year follow-up, the mean spherical equivalent was -0.79 ± 0.68 D (range -2.5 to 0 D) and the mean difference between achieved and attempted correction was -0.43 ± 0.47 (0.50 to -1.25 D). Mean postoperative UDVA and CDVA were 0.20 ± 0.18 and 0.06 ± 0.08 logMAR, respectively. SE was within ± 0.50 D of intended correction in 76% of patients and ± 1.00 D of intended correction in 92% of patients. No patient lost 1 or more lines of CDVA. No vision threatening complications occurred during surgery or the postoperative period. We conclude that SMILE with an intended correction of up to a spherical equivalent of 10 D is safe and effective in long term.

alidemircanctf@yahoo.com