Five-year follow-up of small incision lenticule extraction in high myopia

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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 post-operative follow-up of five years were included in the study. Uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), and manifest refraction SE were analyzed preoperatively and at one, three and five year’s post-operative periods. Pre-operative and post-operative 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 pre-operative 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 pre-operative UDVA and CDVA were 1.41±0.18 and 0.12±0.12 logMAR, respectively. At the five 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 post-operative 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 one or more lines of CDVA. No vision threatening complications occurred during surgery or the post-operative 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.

Biography

Ali Demircan completed his Residency at Beyoglu Eye Research and Education Hospital. He has worked as an Ophthalmologist for two years in Rize State Hospital. Then, he worked as an Assistant Professor for one year at Okmeydani Education and Research Hospital. He has been working as a Retina Fellow for two years at Beyoglu Eye Research and Education Hospital. He has published more than 16 papers in reputed journals.

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