3rd generation refractive surgery: Long term safety and efficacy of small incision lenticule extraction

Moones Abdalla
Egypt

Purpose: To evaluate safety and efficacy of SMILE on follow up more than 1 year.

Methods: Prospective non comparative multi center case series carried out on 4834 eyes of 2238 myopic patients treated with femtosecond laser SMILE from 2010. Uncorrected visual acuity (UCVA), best spectacle corrected visual acuity (BSCVA), manifest refraction and contrast sensitivity were measured in all cases.

Results: Mean preoperative uncorrected visual acuity (UCVA) was 0.1 (range: 0.03-0.6), mean corrected distance visual acuity (CDVA) was 0.8 (range: 0.4-1.2), and mean spherical equivalent SEQ was -5 (range: -1.5 to -14). All these parameters showed statistically significant change in the postoperative period (P<0.01). Mean postoperative UCVA, BSCVA, and SEQ were 0.88 (range: 0.5-1.2), 0.98 (range: 0.5-1.2), and -0.5 (range: -2.5-+1.75), respectively. A few operative or postoperative complications were reported in our case series.

Conclusion: SMILE is a safe and effective procedure with long term refractive stability. SMILE seems to be a reasonable way to deal with some atypical cases which will be discussed.

moones_fathi@hotmail.com