

ABSTRACT

Excimer Laser Photorefractive Keratectomy for 1.50 to 3.50 Diopters of Myopia – Six Months Follow Up

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Purpose: This study was designed to evaluate the efficacy and safety of excimer laser photorefractive keratectomy for myopia in Pakistani people.

Design of Study: Prospective interventional case series.

Participants and Methods: The study group consists of thirteen patients, comprising of 25 eyes, with refractive error ranging from -1.50 to -3.50 D.S (diopters sphere) and less than -1.50 D.C (diopters cylinder). Candidates below the age of eighteen years or with unstable myopia during the last one year or having astigmatism more than -1.50 diopters were not included in this study. Similarly any ocular or systemic disease was considered as exclusion criteria. PRK was performed with FDA approved Omni Med U.V 270300 (Summit Technology Inc; Waltham MA) excimer laser. Thirteen eyes (52%) could be followed up for three months while twelve eyes (48%) could be reviewed at six months after photorefractive keratectomy.

Results: At one month, eleven eyes (44%) and at three months, eight eyes (32%) were hypermetropic within +0.25 to +1.00 diopters of spherical equivalent. At six months only three eyes (25%) had hypermetropia within +0.25 to +1.00 diopters spherical equivalent. None of the eyes had any kind of astigmatism more than 1.00 diopter. No overcorrection of more than +1.00 diopter of spherical equivalent was observed in any case. At one month, three months and six months after photorefractive keratectomy, 88%, 80% and 100% eyes had 6/6 visual acuity respectively, without any optical aid. Hundred percent of the eyes showed complete healing of the epithelium on third post operative day. Moderate to severe postoperative pain was experienced by every one for three days with gradual reduction in intensity. Only one eye (8.33%) had grade 1 haze at six months. Rests of the eyes were clear. No vision threatening complications occurred.

Conclusion: Despite the short term follow up, photorefractive keratectomy appears to be an effective and safe procedure with good predictability for the correction of low myopia. *Al-Shifa Journal of Ophthalmology 2008; 4(1): 30-35 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.*