

# Post operative refractive outcomes in scleral fixated intraocular lenses

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**Purpose:** To compare the predicted and actual postoperative refractive outcomes in patients with scleral fixation of intra ocular lenses (SF-IOL)

**Subjects and Methods:** 20 eyes of 14 patients having inadequate posterior capsular support were included in the study. The pre operative spherical equivalent was recorded and patients were divided into 2 groups on the basis of hyperopic (pupil mostly rendered aphakic) or myopic refractive error (milder subluxation with phakic part in visual axis). SF-IOL was implanted and group wise comparison was made with spherical equivalent of post operative refractive error. Target refraction and actual post operative refraction were also compared between these groups. Similarly the change in astigmatic correction was also compared.

**Results:** In the group of patients having preoperative myopic refractive error due to subluxated lens still in the pupil area this difference was  $1.100 \pm 2.157$  diopters. It was  $1.207 \pm 1.465$  diopters in the group of patients having pre operative hyperopic refractive error due to aphakic pupil area. Comparison of target refraction and actual post operative spherical equivalent between these groups was not statistically significant ( $p=0.384$  and  $p=0.039$  respectively). Pre operative cylinder correction in the myopic group ranged from 0.00 to -6.0 DC (mean  $-1.00 \pm 2.23$  DC) compared to post op cylindrical correction in this group ranging from -1.0 to 1.50 DC (mean  $0.14 \pm 1.18$  DC) with  $p=0.328$ . The preoperative astigmatic correction in the hypermetropic refraction group ranged from 0.00 to 1.5 (mean  $0.13 \pm 0.45$  DC) compared to post operative reading ranging from 0.00 to -5.0 (mean  $-1.75 \pm 1.85$  DC) with a significant difference of  $p=0.009$

**Conclusion:** Our study shows a moderate agreement between the predicted and actual postoperative refractive result in children with SF-IOL. *Al-Shifa Journal of Ophthalmology* 2012; 8(1): 8-12 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.