

## **ABSTRACT**

### **Comparison of surgically induced astigmatism in phacoemulsification with 5.5 mm superior vs. temporal incision**

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**Purpose:** To compare the effect of superior versus temporal limbal incision on surgically induced astigmatism (SIA) in phacoemulsification with 5.5 mm rigid intraocular lens (IOL)

**Duration and Setting:** Department of Ophthalmology Fauji Foundation Hospital, Rawalpindi, from January 2006 to December 2006.

**Patients and Methods:** A total of 100 patients undergoing phacoemulsification with posterior chamber (PC) IOL comprise the study. They were randomly allocated to two groups i.e. Group 1 (superior limbal incision) and Group 2 (temporal limbal incision). 5.5 mm limbal incisions were given in superior and temporal meridians. All surgeries were performed by the same surgeon. All patients had autokeratometry preoperatively and post operatively (4 weeks and 8 weeks). Surgically induced astigmatism was measured by using vector subtraction method ignoring the axis. Statistical analysis was done by using paired sample T test.

**Results:** After 8 weeks Group One had 1.41 diopters of SIA and patients of Group Two had mean SIA of 1.03 D. The difference was statistically significant with p value of 0.002.

**Conclusion:** Temporal incision is associated with significantly less surgically induced astigmatism than superior limbal incision. *Al-Shifa Journal of Ophthalmology 2007; 3(1): 9-14*  
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