

## **Comparison of Visual Outcome between Superior Scleral Tunnel and Temporal Scleral Tunnel Approaches in Manual Small-Incision Cataract Surgery**

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**Purpose:** To compare the postoperative visual acuity, per-operative and post-operative complications and the magnitude of the post-operative astigmatism in “Manual Small Incision cataract surgery (MSICS)” in superior and temporal scleral tunnel approach. **Study Design:** A comparative interventional study

**Participants and methods:** The study was conducted at LRBT Secondary Eye Hospital Lar, Multan from Jan 2008 to September 2008. 250 patients, aged from 45 to 90 years, were enrolled and divided into two groups, group A (N=125) and group B (N=125). Group A underwent MSICS by superior while group B underwent MSICS by temporal scleral tunnel incision approach. The patients were followed up at 1st and 3rd post-operative days and 2nd, 4th and 6th postoperative weeks. 107 patients in group A and 119 patients in group B completed their 6 week follow up. The intraoperative complications, post operative complications, postoperative visual acuity and magnitude of postoperative astigmatism were recorded at 6 week follow up and compared between two groups.

**Results:** At 6th week postoperatively, 46 of 107 (42.9%) of group A and 79 of 119 (66.1%) of group B had uncorrected visual acuity of 6/18 or better. 98 of 107 (91.3%) of group A and 110 of 119 (92.2%) of group B had best corrected visual acuity of 6/18 or better. There was no significant difference between the two groups for intra-operative and post-operative complications. Minimum and safe stigmatism is present in temporal approach.

**Conclusion:** Both superior and temporal scleral tunnel approaches are safe and effective for MSICS but the temporal approach gives better un-corrected visual acuity and minimum and safe astigmatism. *Al-Shifa Journal of Ophthalmology 2009; 5(1): 35-41 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan*