

# Manual small incision cataract surgery or standard incision phacoemulsification cataract surgery does incision size matters in post-operative surgery induced astigmatism



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## ABSTRACT

**Objective:** Comparative evaluation of postoperative efficacy (SIA, CCT, ECC, EPT, and ECL) of manual small-incision and standard incision coaxial phacoemulsification in patients with age related cataracts.

**Method:** This is a prospective randomized comparative study. A total of 150 eyes of patient's undergone surgeries for cataract were assessed. Two groups were made depending on the either of the techniques adopted for surgery comprising 75 each. Post-operative assessments were done at 1st day, 7th day, 30th day and 90th day. Data analysed statistically using repeated measure analysis of variance method to test significance (p).

**Result:** No significant difference was observed between MSICS and PKE for CCT, ECC, and ECL (1st day  $p > 0.05$ , 7th day  $p > 0.05$ , 30th day  $p > 0.05$ , 90th day  $p > 0.05$ ). SIA was significantly lower in PKE (1st day  $p < 0.05$ , 7th day  $p < 0.05$ , 30th day  $p < 0.05$ , 90th day  $p < 0.05$ ).

**Conclusion:** Study revealed that, standard incision phacoemulsification proved to be advantageous as short term and long-term SIA is significantly less thereby supportive of better visual acuity over MSICS. Thus, the PKE being a superior technique must be promoted in practice for better patient outcome.

**Abbreviations:** Central Corneal Thickness(CCT), Enhanced Corneal Compensation(ECC), Endothelial Cell Loss (ECL), Effective Phaco Time(EFT), Manual Small Incision Cataract Surgery(MICS), Phaco-Emulsification (PKE), Surgery Induced Astigmatism(SIA).

## BIOGRAPHY

Atanu Majumdar is currently pursuing his PhD at the age of 39 years from NIMS University Rajasthan, Jaipur. He is the reviewer of the journal International Ophthalmology and with many other live memberships. He is also a member of ESCRS (European Society of Cataract Surgeons).

