

Changes in intraocular pressure following phacoemulsification

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Purpose: To observe the difference in IOP that occurs before and after phacoemulsification surgery.

Participants and Methods: A six month study was conducted at Department of Ophthalmology, Unit A, Khyber Teaching Hospital/ Khyber Medical College, Peshawar. Total number of 38 eyes were operated upon. Intraocular pressure was recorded using a Goldmann tonometer. One reading was taken one day before the scheduled operation and the second reading a day after. Universal II model from Alcon® Surgical was used in the trial. Types of viscoelastic and IOL were also noted.

Results: Based on preoperative (pre-op) and postoperative (post-op) intraocular pressure, they were placed in 2 groups. Within the 2 groups, the increase in IOP was statistically significant 24 hours after surgery. Between the groups, the difference was highly significant ($P = .003$), as determined by Pearson's Correlation test. The increase in IOP was higher in the Viscoat group, 14.28%, as compared to the Hydroxypropyl methylcellulose (HPMC) group, 7.14%. Mean IOP was 14.71 mmHg after surgery as compared to 12.42 mmHg preoperatively. Out of 38 patients 4 (10.5%) had pressures above 20 mmHg.

Conclusion: The transient increase in post-op IOP was highly significant 24 hours after surgery in cases where HPMC and Viscoat were used. In cases where Provisc was used no significant elevation of IOP was noted. *Al-Shifa Journal of Ophthalmology 2013; 9(1): 29-33 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.*
