

17th International Conference on

Clinical and Experimental Ophthalmology

October 01-03, 2018 | Moscow, Russia

Changes of intraocular pressure and cornea biomechanical properties after cataract phacoemulsification

Maria P Yugay and Alla A Ryabtzeva

Moscow Regional Research Clinical Institute of M F Vladimirsky, Russia

Purpose: Cataract phacoemulsification is accompanied by changes in intraocular pressure and biomechanical parameters of the eye. Our purpose was to analyze the changes of intraocular pressure and corneal hysteresis during 3 months after phaco.

Methods: The study included 80 eyes of 80 patients who underwent uncomplicated phacoemulsification through clear corneal incision with IOL implantation. Preoperative examination included standard techniques and measurement of corneal hysteresis, central corneal thickness (CCT), corneal compensated intraocular pressure (IOP) and Goldman IOP by ocular response analyzer, repeated before surgery, 1 day, 2 weeks, 1 and 3 months after surgery.

Results: Corneal hysteresis decreased on the first day after cataract phacoemulsification from 9.90 ± 0.24 mmHg to 8.88 ± 0.26 mmHg and after 2 weeks to 7.91 ± 1.13 mmHg ($p < 0.05$). Then corneal hysteresis started to increase and after 3 months after surgery returned to preoperative values (9.78 ± 0.29 mmHg). Intraocular pressure increased after surgery by 3 mm Hg, decreased to preoperative values by 1 month after phaco, and continued to decrease by 1.5-2 mmHg up to 3 months after phacoemulsification

Conclusion: Corneal hysteresis decreased in the early postoperative period after phaco, dropping to a minimum 2 weeks after surgery. Then corneal hysteresis gradually increased, reaching preoperative values at 3 months after surgery. Changes of intraocular pressure are opposite to changes of corneal hysteresis. CCT increased after phaco, reached maximum in 2 weeks and returned to preoperative values in 3 months.

Biography

Maria Yugay, PhD graduated with honours Kuibushev Medical Institute n.a. D.I.Ylianov (1989). She is an Ophthalmologist, works in Moscow Regional Research Clinical Institute of M F Vladimirsky.

Notes: