

LASIK for myopic astigmatism

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To determine whether it was preferable to perform LASIK guided by wavefront alone, or, in conjunction with topographic data investigators here launched a prospective, double-masked study. In the study, which included 21 eyes of 14 patients, treatment for one group was determined by wavefront parameters alone while those for the other were combined with topographic values. Preoperative those in the wavefront group had a mean corneal astigmatism of 1.07 D compared with a mean of 1.50 for those in the wavefront and topographic values group. At the six-month mark, this had decreased by 39 percent for those in the wavefront group and by 44 percent for those in the combined group. In addition, those who underwent wavefront- and topographic-guided LASIK had a greater reduction in horizontal coma and better mean low and high contrast acuity. Investigators here concluded that those who underwent LASIK that was both wavefront- and topographically-guided had better visual outcomes under low- and high-contrast conditions, with a greater reduction of corneal astigmatism than their counterparts who underwent wavefront-guided LASIK alone.

Safety of intracameral moxifloxacin for prophylaxis of endophthalmitis after cataract surgery

Lisa Arbisser, MD, Julie Crider, PhD

In this study investigators looked at intracameral use of self-preserved moxifloxacin, to determine how safe prophylactic use at the end of cataract surgery was during routine cases. While at the one-day postoperative mark they found that aqueous cell counts were significantly lower in the moxifloxacin-treated group at one-week there was no difference between the two groups. Those in the moxifloxacin treated group also showed no stromal edema and less than 3 percent increase in macular thickness as determined by optical coherence tomography. Also, in terms of mean macular volume there was a less than 4 percent increase with prophylactic intracameral use. No drug related complications were observed. Investigators here determined that in cataract cases there were no problems reported with intracameral use of 0.5 percent moxifloxacin ophthalmic solution, diluted to a 0.1 percent concentration for routine procedures.

Early postoperative change in IOP and ACD after PC

Yang Kyeung Cho, MD, PhD

Investigators in this prospective study considered the impact of axial length on intraocular pressure and anterior chamber depth after phacoemulsification. Included here were 71 eyes of 71 patients who were studied for five weeks after cataract removal and lens implantation. Preoperatively, investigators found that differences in axial length resulted in no statically significant change in IOP. However, postoperatively they found that for those with axial lengths of less than 25 mm there was a significant decrease in IOP at weeks one, three, and five. Likewise, for those with axial lengths of less than or equal to 27 mms but greater than 25 mm there was a significant increase in IOP. Investigators also found that there was a significant difference both preoperative and in postoperative anterior chamber depth according to axial length. They concluded that for determining IOP and ACD change following cataract surgery axial length appears to be a predictive factor.