Objective: to compare the safety of intracameral injection of levofloxacin 0,5% ophthalmic solution and cefuroxime at the conclusion of routine cataract surgery for the prophylaxis of endophthalmitis.

Methods: 53 eyes were randomized to receive 1 mg/0,1 ml cefuroxime or 500 µg/0,1 ml levofloxacin given intracamerally at the conclusion of cataract surgery. Endothelial cell count, corneal thickness, endothelial morphology, and anterior chamber reactions were determined by specular microscopy and biomicroscope, respectively, before, 1 day, 1 week, and 1 month after surgery. A p value of less than 0,05 was considered significant.

Results: there were no statistical significant difference in the changes of endothelial cell count, corneal thickness, endothelial morphology, and anterior chamber reactions between eyes receiving intracameral cefuroxime and levofloxacin at 1 day, 1 week, and 1 month after surgery (p > 0,05).

Conclusion: intracameral levofloxacin 0,5% appeared to be as safe as intracameral cefuroxime in terms of endothelial cell count, corneal thickness, endothelial morphology, and anterior chamber reactions. The administration of intracameral levofloxacin 0,5% may be used as a prophylaxis of endophthalmitis in terms of safety.