

# Bölüm 8

## Presbiyopi Düzeltici Göz İçi Lenslerin Özellikli Hastalarda Kullanımı

Ahmet Kürşad SAKALLIOĞLU<sup>1</sup>

### Glokom Hastalarında Presbiyopi Düzeltici Göz İçi Lensler

Katarakt ve glokom sıklığı yaş ile birlikte artmaktadır. Bu nedenle ileri yaş hastalarda bu iki durumun birlikte görülmesi nadir değildir. Bu birliktelik aynı zamanda ameliyat öncesindeki, ameliyat sırasındaki ve sonrasındaki sonuçları etkilemektedir. Hastalarda bu sebepler nedeniyle özellikli göz içi lens (GİL) seçerken dikkatli olunmalıdır (1).

Daha önce yapılan çalışmalarda; glokomlu hastalarda görme düzeyleri normal seviyelerde olsa da kontrast duyarlılığında azalma olduğu gösterilmiştir. Bu azalma özellikle günlük aktiviteler için önemlidir (2, 3). Kontrast duyarlılığı, görüntüdeki keskin kenarları ve açık-koyu tonları birbirinden ayırt edebilme yeteneğidir. Glokomlu hastalarda görme alanındaki kayıp kontrast duyarlılığında azalma ile ilişkilidir. Glokom görme keskinliğine kıyasla kontrast duyarlılığını daha çok etkilemektedir (2).

<sup>1</sup> Dr. Öğr. Görevlisi Ahmet Kürşad Sakallıoğlu, Trakya Üniversitesi Tıp Fakültesi Hastanesi Göz Hastalıkları Ana Bilim Dalı, E-mail: akursadsakallioğlu@trakya.edu.tr

## KAYNAKÇA

1. Iancu R, Corbu C. Premium intraocular lenses use in patients with cataract and concurrent glaucoma: a review. *Maedica (Bucur)*. 2013;8(3):290-6.
2. Hawkins AS, Szlyk JP, Ardickas Z, Alexander KR, Wilensky JT. Comparison of contrast sensitivity, visual acuity, and Humphrey visual field testing in patients with glaucoma. *Journal of glaucoma*. 2003;12(2):134-8.
3. Stamper RL. Psychophysical changes in glaucoma. *Survey of ophthalmology*. 1989;33 Suppl:309-18.
4. Teichman JC, Vold SD, Ahmed, II. Top 5 pearls for implanting premium IOLs in patients with glaucoma. *International ophthalmology clinics*. 2012;52(2):65-71.
5. Trueb PR, Albach C, Montés-Micó R, Ferrer-Blasco T. Visual acuity and contrast sensitivity in eyes implanted with aspheric and spherical intraocular lenses. *Ophthalmology*. 2009;116(5):890-5.
6. Kohnen T, Klaproth OK, Bühren J. Effect of intraocular lens asphericity on quality of vision after cataract removal: an intraindividual comparison. *Ophthalmology*. 2009;116(9):1697-706.
7. Kumar BV, Phillips RP, Prasad S. Multifocal intraocular lenses in the setting of glaucoma. *Current opinion in ophthalmology*. 2007;18(1):62-6.
8. Kamath GG, Prasad S, Danson A, Phillips RP. Visual outcome with the array multifocal intraocular lens in patients with concurrent eye disease. *Journal of Cataract & Refractive Surgery*. 2000;26(4):576-81.
9. Pedrotti E, Carones F, Aiello F, Mastropasqua R, Bruni E, Bonacci E, et al. Comparative analysis of visual outcomes with 4 intraocular lenses: monofocal, multifocal, and extended range of vision. *Journal of Cataract & Refractive Surgery*. 2018;44(2):156-67.
10. Teichman JC, Ahmed IIK. Intraocular lens choices for patients with glaucoma. *Current Opinion in Ophthalmology*. 2010;21(2):135-43.
11. Aychoua N, Montolio FGJ, Jansonius NM. Influence of multifocal intraocular lenses on standard automated perimetry test results. *JAMA ophthalmology*. 2013;131(4):481-5.
12. Liu J, Dong Y, Wang Y. Efficacy and safety of extended depth of focus intraocular lenses in cataract surgery: a systematic review and meta-analysis. *BMC Ophthalmology*. 2019;19(1):198.
13. Brown RH, Zhong L, Bozeman CW, Lynch MG. Toric intraocular lens outcomes in patients with glaucoma. *Journal of Refractive Surgery*. 2015;31(6):366-72.
14. Ram J, Brar GS, Kaushik S, Sukhija J, Bandyopadhyay S, Gupta A. Primary intraocular lens implantation in the first two years of life: safety profile and visual results. *Indian journal of ophthalmology*. 2007;55(3):185.
15. Ram J, Gupta N, Sukhija JS, Chaudhary M, Verma N, Kumar S, et al. Outcome of cataract surgery with primary intraocular lens implantation in children. *British journal of ophthalmology*. 2011;95(8):1086-90.
16. Foster A, Gilbert C, Rahi J. Epidemiology of cataract in childhood: a global perspective. *Journal of Cataract & Refractive Surgery*. 1997;23:601-4.
17. Alfonso JE, Fernández-Vega L, Baamonde MB, Montés-Micó R. Prospective visual evaluation of apodized diffractive intraocular lenses. *Journal of Cataract & Refractive Surgery*. 2007;33(7):1235-43.

18. Cillino S, Casuccio A, Di Pace F, Morreale R, Pillitteri F, Cillino G, et al. One-year outcomes with new-generation multifocal intraocular lenses. *Ophthalmology*. 2008;115(9):1508-16.
19. Jacobi PC, Dietlein TS, Konen W. Multifocal intraocular lens implantation in pediatric cataract surgery. *Ophthalmology*. 2001;108(8):1375-80.
20. Cristóbal JA, Remón L, Del Buey MÁ, Montés-Micó R. Multifocal intraocular lenses for unilateral cataract in children. *Journal of Cataract & Refractive Surgery*. 2010;36(12):2035-40.
21. Hütz WW, Eckhardt HB, Röhrig B, Grolmus R. Reading ability with 3 multifocal intraocular lens models. *Journal of Cataract & Refractive Surgery*. 2006;32(12):2015-21.
22. Renieri G, Kurz S, Schneider A, Eisenmann D. ReSTOR® diffractive versus Array® 2 zonal-progressive multifocal intraocular lens: a contralateral comparison. *Eur J Ophthalmol*. 2007;17(5):720-8.
23. Abouzeid H, Moetteli L, Munier FL. New-generation multifocal intraocular lens for pediatric cataract. *Ophthalmologica*. 2013;230(2):100-7.
24. Wilson ME, Trivedi RH, Burger BM. Eye growth in the second decade of life: implications for the implantation of a multifocal intraocular lens. *Transactions of the American Ophthalmological Society*. 2009;107:120.
25. Crouch ER, Crouch Jr ER, Pressman SH. Prospective analysis of pediatric pseudophakia: myopic shift and postoperative outcomes. *Journal of American Association for Pediatric Ophthalmology and Strabismus*. 2002;6(5):277-82.
26. Tytla ME, Lewis TL, Maurer D, Brent HP. Stereopsis after congenital cataract. *Investigative ophthalmology & visual science*. 1993;34(5):1767-73.
27. Birch EE, Stager Sr DR, Berry P, Leffler J. Stereopsis and long-term stability of alignment in esotropia. *Journal of American Association for Pediatric Ophthalmology and Strabismus*. 2004;8(2):146-50.
28. Post Jr CT. Comparison of depth of focus and low-contrast acuities for monofocal versus multifocal intraocular lens patients at 1 year. *Ophthalmology*. 1992;99(11):1658-64.
29. Almoqbel FM, Irving EL, Leat SJ. Visual acuity and contrast sensitivity development in children: sweep visually evoked potential and psychophysics. *Optometry and Vision Science*. 2017;94(8):830-7.
30. Simmers AJ, Gray LS, McGraw PV, Winn B. Functional visual loss in amblyopia and the effect of occlusion therapy. *Investigative Ophthalmology & Visual Science*. 1999;40(12):2859-71.
31. Gordon RA, Donzis PB. Refractive development of the human eye. *Archives of ophthalmology*. 1985;103(6):785-9.
32. Ram J, Agarwal A, Kumar J, Gupta A. Bilateral implantation of multifocal versus monofocal intraocular lens in children above 5 years of age. *Graefe's Archive for Clinical and Experimental Ophthalmology*. 2014;252(3):441-7.
33. Trivedi RH, Wilson Jr ME. Changes in interocular axial length after pediatric cataract surgery. *Journal of American Association for Pediatric Ophthalmology and Strabismus*. 2007;11(3):225-9.
34. Trivedi RH, Wilson ME. Prediction error after pediatric cataract surgery with intraocular lens implantation: contact versus immersion A-scan biometry. *Journal of Cataract & Refractive Surgery*. 2011;37(3):501-5.

35. Grzybowski A, Kanclerz P, Tuuminen R. Multifocal intraocular lenses and retinal diseases. *Graefes Arch Clin Exp Ophthalmol*. 2020;258(4):805-13.
36. Crassini B, Brown B, Bowman K. Age-related changes in contrast sensitivity in central and peripheral retina. *Perception*. 1988;17(3):315-32.
37. Owsley C, Sekuler R, Siemsen D. Contrast sensitivity throughout adulthood. *Vision research*. 1983;23(7):689-99.
38. Nomura H, Ando F, Niino N, Shimokata H, Miyake Y. Age-related change in contrast sensitivity among Japanese adults. *Japanese journal of ophthalmology*. 2003;47(3):299-303.
39. Karatepe AS, Köse S, Eğrilmez S. Factors affecting contrast sensitivity in healthy individuals: a pilot study. *Turkish journal of ophthalmology*. 2017;47(2):80.
40. Sia DI, Martin S, Wittert G, Casson RJ. Age-related change in contrast sensitivity among Australian male adults: Florey Adult Male Ageing Study. *Acta ophthalmologica*. 2013;91(4):312-7.
41. Morrison J, Jay J. Changes in visual function with normal ageing, cataract and intraocular lenses. *Eye*. 1993;7(1):20-5.
42. Burton KB, Owsley C, Sloane ME. Aging and neural spatial contrast sensitivity: photopic vision. *Vision research*. 1993;33(7):939-46.
43. Grzybowski A, Kanclerz P, Muzyka-Woźniak M. Methods for evaluating quality of life and vision in patients undergoing lens refractive surgery. *Graefe's Archive for Clinical and Experimental Ophthalmology*. 2019;257(6):1091-9.
44. Mainster M, Turner P. Multifocal IOLs and Maculopathy: How Much is Too Much. *Mastering Refractive IOLs: The Art and Science* Thorofare, NJ: Slack Incorporated. 2008:389-92.
45. Gayton JL, Mackool RJ, Ernest PH, Seabolt RA, Dumont S. Implantation of multifocal intraocular lenses using a magnification strategy in cataractous eyes with age-related macular degeneration. *Journal of Cataract & Refractive Surgery*. 2012;38(3):415-8.
46. Alio JL, Plaza-Puche AB, Fernández-Buenaga R, Pikkell J, Maldonado M. Multifocal intraocular lenses: an overview. *Survey of ophthalmology*. 2017;62(5):611-34.
47. Braga-Mele R, Chang D, Dewey S, Foster G, Henderson BA, Hill W, et al. Multifocal intraocular lenses: relative indications and contraindications for implantation. *Journal of Cataract & Refractive Surgery*. 2014;40(2):313-22.
48. Sangwan VS, Gupta S, Das S. Cataract surgery in ocular surface diseases: clinical challenges and outcomes. *Curr Opin Ophthalmol*. 2018;29(1):81-7.
49. Bourne RR, Stevens GA, White RA, Smith JL, Flaxman SR, Price H, et al. Causes of vision loss worldwide, 1990–2010: a systematic analysis. *The lancet global health*. 2013;1(6):e339-e49.
50. Day A, Donachie P, Sparrow J, Johnston R. The Royal College of Ophthalmologists' National Ophthalmology Database study of cataract surgery: report 1, visual outcomes and complications. *Eye*. 2015;29(4):552-60.
51. Addisu Z, Solomon B. Patients' preoperative expectation and outcome of cataract surgery at jimma university specialized hospital-department of ophthalmology. *Ethiopian journal of health sciences*. 2011;21(1):47-56.
52. Pager CK. Expectations and outcomes in cataract surgery: a prospective test of 2 models of satisfaction. *Archives of ophthalmology*. 2004;122(12):1788-92.

53. Edward Y, Leung A, Rao S, Lam DS. Effect of laser in situ keratomileusis on tear stability. *Ophthalmology*. 2000;107(12):2131-5.
54. Koh S, Tung CI, Inoue Y, Jhanji V. Effects of tear film dynamics on quality of vision. *British Journal of Ophthalmology*. 2018;102(12):1615-20.
55. Woodward MA, Randleman JB, Stulting RD. Dissatisfaction after multifocal intraocular lens implantation. *Journal of Cataract & Refractive Surgery*. 2009;35(6):992-7.
56. Donnenfeld ED, Solomon R, Roberts CW, Wittpenn JR, McDonald MB, Perry HD. Cyclosporine 0.05% to improve visual outcomes after multifocal intraocular lens implantation. *Journal of Cataract & Refractive Surgery*. 2010;36(7):1095-100.
57. Schallhorn SC, Schallhorn JM, Pelouskova M, Venter JA, Hettinger KA, Hannan SJ, et al. Refractive lens exchange in younger and older presbyopes: comparison of complication rates, 3 months clinical and patient-reported outcomes. *Clinical Ophthalmology (Auckland, NZ)*. 2017;11:1569.
58. Gupta PK, Drinkwater OJ, VanDusen KW, Brissette AR, Starr CE. Prevalence of ocular surface dysfunction in patients presenting for cataract surgery evaluation. *J Cataract Refract Surg*. 2018;44(9):1090-6.
59. Naderi K, Gormley J, O'Brart D. Cataract surgery and dry eye disease: A review. *Eur J Ophthalmol*. 2020;30(5):840-55.
60. Newman H, Gooding C. Viral ocular manifestations: a broad overview. *Reviews in medical virology*. 2013;23(5):281-94.
61. Goldberg DF. Preoperative evaluation of patients before cataract and refractive surgery. *International ophthalmology clinics*. 2011;51(2):97-107.