

عنوان مقاله:

Combined implantation of toric and spherical intraocular lenses for low corneal astigmatism correction

محل انتشار:

مجله نظریه پردازی در اپتومتری، دوره 1، شماره 3 (سال: 1399)

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خلاصه مقاله:

**Abstract Background:** This study compared outcomes of combined toric versus spherical intraocular lens (IOL) implantation in patients with low corneal astigmatism. **Methods:** In this retrospective contralateral study, patients with corneal astigmatism who received combined toric (FIL ۶۱۱ T, Soleko, Rome, Italy) and spherical IOL (FIL ۶۱۱ T, Soleko, Rome, Italy) implants were recruited. Eyes were examined preoperatively and then again ۳ months postoperatively. Postoperatively, uncorrected distance visual acuity (UCDVA), residual astigmatism, and spherical equivalent (SE) were compared between the toric IOL-implanted eyes and the spherical IOL-implanted fellow eyes. **Results:** Among the ۴۶ included cases (age  $۶۹ \pm ۱۲.۷$  years [mean  $\pm$  standard deviation]; range: ۶۰-۷۸ years), ۸۶.۹% of eyes (n = ۴۰) in the toric IOL group had a postoperative refractive cylinder of less than or equal to ۰.۲۵ diopters (D), compared with ۴.۳% (n = ۲) of eyes in the spherical IOL group. Both groups showed a statistically significant reduction in refractive cylinder and improvement in UCDVA after cataract surgery (both  $P = ۰.۰۱$ ). Similarly, toric IOLs were superior (۶۹.۶%) to spherical lenses (۲.۲%) in obtaining a SE of less than or equal to ۰.۲۵ D. **Conclusions:** To our knowledge, no previous study had sought to compare low-power toric and spherical IOLs in low corneal astigmatism in the same patient's eyes. Our findings suggest that low-power toric IOLs may result in good refractive outcomes as compared with spherical IOLs implanted in the fellow eye of the same patient, although both result in significant UCDVA improvement. Well-designed clinical research studies with a longer follow-up and more participants are necessary to confirm these findings. **Keywords:** cataract toric IOL spherical IOL intraocular lenses astigmatism cornea cataract surgery

کلمات کلیدی:

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