

Extended depth of focus lens implantation after radial keratotomy [Letter]

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Dear editor

I have read with great interest the article by Baartman et al on “Extended depth of focus lens implantation after radial keratotomy”.¹ I would like to appreciate the authors for evaluating the visual performance and subjective satisfaction in patients with prior RK that have undergone cataract surgery with implantation of an extended depth of focus (EDOF) IOL.

However, I have a few concerns regarding the article. Firstly, there is an overestimation of the corneal refractive power that is going to modify the correct power of the IOL to achieve emmetropia. This is because there is central corneal flattening (due to swelling and corneal edema) combined with an irregular cornea with radial incisions which makes it difficult to perform accurate keratometry measurement. In addition, diurnal variation or changes with time in this type of eyes may also have an impact upon final refractive and visual outcomes. The mechanism for diurnal fluctuation in refractive error after RK is thought to be the result of changes in corneal hydration and the instability of the peripheral cornea after the collagen lamellae are incised.² Hence taking repeated keratometry readings at different times is therefore essential to get an accurate keratometry values as suggested by Kemp et al.³

Secondly, as 8 out of 24 eyes underwent prior refractive procedures in this study, it is not mentioned whether they had undergone any crosslinking (CXL) or not. Due to biomechanical disruption of the collagen there can be progression or acceleration of keratometry values after a refractive surgery on these eyes. It is observed that CXL is likely a safe and effective procedure for biomechanical corneal stabilization in RK-operated patients who are planning any refractive surgery.⁴ Hence providing information whether these eyes underwent CXL or not would have been more informative.

Disclosure

The author reports no conflicts of interest in this communication.

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