

- Original Paper
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Femtosecond laser-assisted cataract surgery in small pupils using non-aligned iris expansion ring without viscoelastic and corneal suture

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Abstract

Purpose

To describe a technique for cataract surgery in eyes with small pupils that combines the use of the femtosecond laser and an iris expansion device, but without the use of corneal sutures and an ophthalmic viscosurgical device (OVD) at the time of laser application.

Methods

A retrospective case series of three eyes with small pupils were operated by the same surgeon without a corneal suture and with removal of anterior chamber OVD prior to laser application.

Results

Corrected distance visual acuity (CDVA) for 1 eye in a 70 year-old patient was 20/70 preoperatively and 20/20 thirty days postoperatively. CDVA for a second patient was 20/50 and 20/200 in the two eyes, which improved to 20/25 two months postoperatively in both eyes. There were no complications observed and the intraocular lens were well-centered.

Conclusion

The use of mechanical pupil expander rings is safe and practical in setting small pupils during femtosecond laser-assisted cataract surgery.