Implantation of glued intraocular lenses in eyes with microcornea.

Authors: Ashok Kumar D, Agarwal A, Sivangnanam S, Chandrasekar R, Agarwal A

Publication Date: 2015

Abstract:

PURPOSE: To evaluate the intraoperative modifications for and vision outcomes after implantation of glued intraocular lenses (IOLs) in eyes with microcornea.

SETTING: Dr. Agarwal's Eye Hospital and Eye Research Centre, Chennai, India.

DESIGN: Prospective case series.

METHODS: Eyes with a horizontal cornea of 10.0 mm or less were evaluated for intraoperative modifications and postoperative vision after implantation of a glued IOL. The type of surgery, type of IOL, incision and optic sizes, haptic length modifications, uncorrected (UDVA) and corrected (CDVA) distance visual acuity, and postoperative complications were analyzed.

RESULTS: A glued IOL was implanted in 15 eyes to treat subluxated cataract (9 eyes), aphakia (5), and intraoperative capsule loss (1). In cases involving a subluxated cataract, implantation of the glued IOL was followed by lensectomy (7 eyes) or intracapsular cataract extraction (2 eyes). The mean follow-up was 22.4 months +/- 17.2 (SD). The mean horizontal corneal diameter and axial length were 8.0 +/- 0.6 mm and 21.0 +/- 2.4 mm, respectively. The mean amount of IOL haptic trimmed intraoperatively was 1.54 +/- 0.33 mm. There was significant correlation between the horizontal corneal diameter and the amount of haptic trimmed (P = .000). The mean size of the main incision was 3.70 +/- 0.98 mm. Three-piece foldable IOLs with a 6.0 mm optic were used. There

were no cases of haptic extrusion or subconjunctival haptic placement. There was statistically significant improvement in CDVA (P = .032) and UDVA (P = .012) after surgery.

CONCLUSION: Glued IOLs were safely implanted in eyes with microcornea using modifications such as custom haptic trimming and 6.0 mm optic foldable IOLs.

FINANCIAL DISCLOSURE: Dr. Amar Agarwal is a paid consultant to Staar Surgical Co. No other author has a financial or proprietary interest in any material or method mentioned.