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Clinical Evaluation of Phakic Intraocular Lens Implantation for High Myopia

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PURPOSE

• To evaluate the safety, efficacy, and clinical parameters of the Acrysof Cachet phakic intraocular lens (Alcon, Fort Worth, TX) in the visual rehabilitation of high myopia.

INTRODUCTION

• Phakic intraocular lens (IOL) implantation is one option in the correction of high myopia and myopia in cases with thin or irregular corneas.

• Some issues with anterior chamber and posterior chamber phakic IOLs include risk of pupillary block, need for a peripheral iridectomy, cataract formation, corneal decompensation, and glaucoma due to angle obstruction.

• The Acrysof Cachet phakic IOL offers several advantages including a hydrophobic acrylic material which is routinely used in cataract surgery with excellent results and biocompatibility.

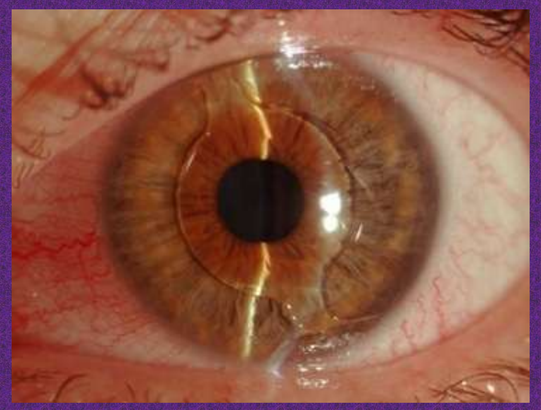
• Our goal was to evaluate the post-surgical results and safety profile of the Cachet phakic IOL.

METHODS

• Prospective nonrandomized clinical trial

• Twenty-five eyes of eighteen consecutive patients were evaluated pre- and six months postoperatively

• Clinical parameters and outcome measures included age, uncorrected visual acuity (UCVA), best spectacle-corrected visual acuity (BSCVA), manifest refraction, cylinder, topographic cylinder change, and endothelial cell count



RESULTS

• The mean age was 27 years and mean pre- and postoperative values were:

•UCVA: 20/400 to 20/25
• BSCVA: 20/25 to 20/18
• Spherical equivalent reduction from 10.2D to 0.5D
• Cylinder: -1.75D to -1.25D
• Topographic cylinder change: -0.35D
• Endothelial cell count: 2650 to 2550

• No complications were encountered.

CONCLUSION

• The Acrysof Cachet phakic IOL appears to be safe and effective in high myopia.

• Significant advantages include a simple implantation technique, small corneal incision (2.7mm), no need for peripheral iridectomy, and minimal anterior chamber changes from the haptics.

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Disclosures: none