

**Comparison of Outcomes of Anterior Chamber vs iris or scleral-fixated intraocular lens implantation after complicated cataract surgery.**

**Objective:** To compare postoperative visual outcomes and complication rates between patients receiving anterior chamber intraocular lens implants vs iris and scleral-fixated intraocular lens implants.

**Methods:** A retrospective chart review was performed for all patients who received an anterior chamber, scleral-fixated, or iris-fixated intraocular lens implant following complicated cataract surgery between June 2010 and June 2020. Main outcome measures included best-corrected visual acuity at postoperative months 1, 6, and 12. Any intraoperative or postoperative complications were also documented. The data was analyzed using chi-square analysis.

**Results and Discussion:** 136 patients required an anterior chamber or iris or scleral fixated intraocular lens implant. 90 patients (66.2%) received an anterior chamber intraocular lens and 46 (33.8%) patients received either an iris or scleral fixated intraocular lens. There was no significant difference in best-corrected visual acuity between the two groups at months 1 ( $p=0.94$ ), 6 ( $p=0.68$ ), and 12 ( $p=0.43$ ) after surgery. There was a significant difference in short-term complications between both groups ( $p=0.01$ ). The most common short-term complication for anterior chamber lens implants was corneal edema. For sutured lenses, the most common complication was increased intraocular pressure. However, there was no significant difference in long-term complications ( $p=0.18$ ).

**Conclusion:** The purpose of this study is to broaden the literature available and assess how secondary ACIOLs compare to IOLs fixated to the sclera or iris in terms of post-operative best-corrected visual acuity and postoperative complications. Our findings show no difference in visual outcomes after anterior chamber or iris/scleral sutured intraocular lens implantation. While eyes receiving an anterior chamber intraocular lens implant had more early complications, there is no significant difference in long-term complications between the two groups.