

TABLE 19-1.

COMPLICATIONS

COMPLICATION	IOL IN THE SULCUS	AC-IOL	PC-IOL	
			With Scleral Fixation	With Iris Fixation
Acute cystoid macular edema	+	++	++	++
Chronic cystoid macular edema	-	+	+	+
Glaucoma	-	++	+	+
IOL tilt/decentration	-	+	++	++
Suture eosion	No	No	++	No
Endophthalmitis associated with the suture	No	No	+	No
Endophthalmitis not associated with the suture	+	+	+	+
Corneal edema	+	++	+	+
Intraoperative bleeding	+	+	++	++
Synechiae	-	++	-	+
Retinal detachment	-	+	++	+
Chorioidal detachment	-	+	++	+
Uveitis	-	++	-	+
Long-term corneal decompensation	-	+	-	-
Risk of failure of Prolene	No	No	+	+

the open loop AC-IOLs and iris sutured PC-IOLs in the first 2 years after surgery.³⁸

In studies on the individual IOLs, the incidence of postoperative corneal edema or endothelial cell loss of a transplanted cornea was not a significant problem, regardless of the type of IOL implanted.^{16-39,60-65} Only one study reported nonstatically significant corneal edema after secondary implantation of an open loop AC-IOL with cataract surgery compared to the implantation of PC-IOL with scleral fixation.³⁶

There were no statistically significant differences in the incidence of postsurgery glaucoma in 2 studies that compared the 3 techniques during PKP.^{37,39}

The interpretation of CME is more complex, as it is difficult to make an accurate assessment of its impact (probably high) in many eyes. The incidence of this complication is relatively high in several patient groups for all 3 types of IOLs.^{11,15} In 2 clinical studies that compared secondary implantation of open loop AC-IOLs and PC-IOLs with scleral fixation during PKP, it appeared that the incidence of CME is not different.³⁷⁻³⁹ In another study on PKP, there was a statistically lower incidence of CME with a PC-IOL sutured to the iris as opposed to open loop AC-IOLs and PC-IOLs with scleral fixation.³⁷

SECONDARY INTRAOCULAR LENS IMPLANTS IN CHILDREN

Good results of secondary implants have been reported in children with or without adequate capsular support. Pediatric patients implanted with an AC-IOL face significant long-term complications, such as endothelial cell loss, iris sphincter erosion, pupillary ectopia, and glaucoma; consequently, this procedure is not recommended.^{85,86}

On the other hand, the iris claw IOLs (always located in AC) are not angle supported, but remain enclavated to the iris using small PMMA clips that are part of the IOL lens. These are frequently used in Europe (not in the United States) and have produced satisfactory results for more than 20 years. Good results have been published with these implants in children.⁸⁷

The implant of a PC-IOL with scleral fixation is the choice for many surgeons for pediatric patients; the benefit is the anatomical site of the implant.^{86,88-90} After a PC-IOL with scleral fixation, most cases showed a significant improvement in vision, as reported in several studies. However, all (except one) had a relatively short follow-up.