

Five-Year Postoperative Outcomes of Bilateral Aphakia and Pseudophakia in Children up to 2 Years of Age: A Randomized Clinical Trial.

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Abstract

PURPOSE:

Comparative evaluation of complications and visual outcomes following bilateral congenital cataract surgery in children up to 2 years of age with and without primary intraocular lens (IOL) implantation at 5 years follow-up.

DESIGN:

Randomized controlled clinical trial.

METHODS:

Sixty children (120 eyes) up to 2 years of age undergoing bilateral congenital cataract surgery were randomized to Group 1, primary aphakia (n = 30), or Group 2, primary IOL implantation (pseudophakia) (n = 30). A single surgeon performed surgeries with identical surgical technique. All patients were followed up regularly until 5 years postoperatively. At each follow-up, glaucoma, visual axis obscuration (VAO) requiring surgery, and inflammation (cell deposits, posterior synechiae) were assessed. Visual acuity was assessed until 5 years follow-up. The first operated eye was selected for statistical analysis.

RESULTS:

Median age of the patients at time of surgery was 5.11 months (aphakia group) and 6.01 months (pseudophakia group) (P = .56). Five years postoperatively, incidence of glaucoma was 16% and 13.8% in Groups 1 and 2 (P = .82). Incidence of posterior synechiae was significantly higher in the pseudophakia group (27.6%) compared to the aphakia group (8%) (P = .004). VAO requiring surgery was seen in 8% and 10.3% of eyes in Groups 1 and 2 (P = .76). Mean logMAR visual acuity at 5 years follow-up was 0.59 ± 0.33 and 0.5 ± 0.23 in Groups 1 and 2, respectively (P = .79). However, more eyes in the pseudophakic group started giving documentable vision earlier in their postoperative follow-ups.

CONCLUSIONS:

Incidence of postoperative complications was comparable between the groups, except for a higher incidence of posterior synechiae in pseudophakic eyes. Visual rehabilitation was faster in the pseudophakic group.