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Factors Affecting Visual Outcome Following Surgical Treatment of Cataracts in Children

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ABSTRACT

Purpose: To assess treatment results in pediatric patients with cataracts, to evaluate the efficacy of various surgical interventions, and to determine the factors that affect visual outcomes. **Methods:** This is a prospective cohort study. We studied a consecutive series of pediatric patients with congenital, developing, or traumatic cataracts who underwent surgery between January, 1999 and April, 2012 at Drashti Netralaya, Dahod. Patient demographics, cataract type, presenting symptoms, surgical intervention, postoperative visual acuity, and follow-up refractive changes were recorded. **Results:** In total, 1305 eyes of 1047 children were included: unilateral cataracts were present in 786 (60.2%) eyes. There were 610 (46.7%) traumatic and 695 (53.3%) non-traumatic cases. Ages at surgery ranged from 1 to 215 months. Eyes were grouped by the surgical intervention performed: Group 1, pars plana approach including 366 (28%) eyes that underwent lensectomies, and Group 2, anterior approach, including 939 (71.9%) eyes that underwent phacoemulsification ± IOL placement or small incision cataract surgery ± IOL placement. The mean follow-up time was 117 days. Ultimately, 113 (30.9%) Group 1 and 503 (53.6%) Group 2 patients achieved a visual acuity better than 20/60 ($P < 0.001$). Age at intervention, laterality, sensory nystagmus, pretreatment vision, IOL insertion, and etiology were all significantly related (all $P < 0.001$) to visual outcome. **Conclusions:** Surgical treatment with intraocular lens implantation for children with congenital, developmental, or traumatic cataracts is an effective treatment for visual rehabilitation. Visual outcome was significantly better in cases of traumatic cataracts versus non-traumatic cataracts.

KEYWORDS

Pediatric Cataract; Visual Outcome; Traumatic Cataract; Developmental Cataract; Congenital Cataract

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