

Factors Affecting Visual Acuity after Unilateral Cataract Extraction in Pediatric Age Group

Thesis

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Abstract

Introduction: Cataract is the most important cause of treatable childhood blindness. There are an estimated 200.000 children blind from cataract worldwide, 20.000 to 40.000 children with developmental bilateral cataract are born each year .

The growth of different components of the eye is regulated by a process known as *emmetropization*(the reduction of refractive errors during eye growth). Lack of proper visual stimulation that results from cataract leads to amblyopia and also appears to interfere with normal growth pattern of the globe leading to elongation of the globe (axial myopia). Investigators have found that age at surgery, laterality of cataract and compliance with amblyopia therapy are associated with postoperative visual outcomes.

Patients and methods: Retrospective study of 30 pediatric patients with unilateral cataracts. Subjects were included if they had cataract extraction with primary IOL implantation and were between 7 months and 18 years at the time of surgery.

Results: Mean IALD was 1.37 mm. . The mean IALD was 0.26 mm only in patients with good visual outcome while those who had fair and poor outcome, mean IALD was 1.87 mm and 2.24 mm respectively. as all the patients in our study who had good visual outcome were compliant to amblyopia therapy while 60% of patients with fair visual outcome and 28.50% of those with poor visual outcome only were with compliant to amblyopia therapy. Mean age at surgery was 39.40 months. Eleven patients had good vision. 91.9% of them were younger than 2 years old at the time of surgery.

Conclusion: There is a clinically important relationship between IALD and postoperative visual acuity. Better visual prognosis appears to be associated with a smaller IALD, younger age at surgery, and good compliance to amblyopia therapy.

Keywords: congenital cataract ,emmetropization, Sutureless ,visual outcome.