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## Visual Outcome after Cataract Surgery in School Going Age Children

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### Abstract

**AIM:** A prospective 1yr study from jan 2013 –dec 2013,to assess the visual outcome after cataract surgery in school going age children.

**Materials & Methods:** 130 eyes included.Children from 4 to 15 yrs considered.Detailed slit lamp assessment,fundus evaluation,B scan,keratometry,A scan,Urine & blood tests done.

**Procedure:**SICS done in all cases with Rigid PMMA IOL implantation.wound sutured in children less than 8yrs

**Results:** Male to female ratio 3:1,Congenital cataracts 55%,developmental 30%,traumatic 15% noted 56.5% are of 5-10 years age and 44.5%, 10 -15 yrs.Nystagmus present in 40% cases.Visual outcome - 6/18-6/9 in 10%, 6/24-6/36 in 27% & CFCF in 63%.

**Conclusion:** Eyes with good fixation achieved good vision.Unilateral cataracts & Nystagmus cases had poor outcome.However minimum improvement of vision in such cases, benefited children perform their daily activities.Childhood cataract imposes burden on economic and social development of the nation.School eye screening should be included as routine practice in all schools.Children in blind schools should be evaluated in order not to miss, those blind eyes due to cataract.

**Keywords-** Cataract, Visual acuity.

## INTRODUCTION

According to recent survey of WHO-75% of blindness in children is Curable or Preventable.

In developing countries school going children account for > 25% of the population. Every year 50 thousand will become blind. Main Causes are Malnutrition, Cataract, Illiteracy, ignorance among the parents and Difficulty in access to eye care facility.

**AIM:** To assess the visual outcome after cataract surgery in school going age children.

## MATERIALS AND METHODS

- A prospective study conducted at Dr.R.S.P.R.Govt.Regional Eye Hospital, Visakhapatnam .AP .from Jan 2013 to Dec2013. Both blind school and walk in children included in this study.
- No. of cases – (n) 78
- No. of eyes – (n) 130

### Inclusion Criteria

- Children above 4 years
- Visual acuity-PL +PR + or better

### Exclusion Criteria

- Children below 4 years.
- Vision - no PL Eyes with posterior segment pathology
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## EVALUATION

Every child was thoroughly evaluated for Visual acuity and Anterior segment evaluation was done using slit lamp biomicroscopy.4% of cases vision was 6/60 and 60% Of case vision was less than

3/60 and 36% of cases only PL and PR present. Fundus examination was done with Direct & Indirect Ophthalmoscopy ,78 D where ever necessary. Posterior Segment evaluation done with B-Scan in necessary cases. Parents examined for lens opacities to confirm autosomal dominant inheritance. Urine examination for reducing sugars and amino acids done. Blood glucose and Hb% levels were estimated. Paediatric evaluation done by paediatrician to exclude systemic diseases in necessary cases.

## SURGICAL PROCEDURE

SICS was done in all cases with Can Opener/Capsulorrhexis capsulotomy technique. Single piece PMMA IOL was inserted in all cases.Sutures applied in children less than 8 yrs of age.

## POSTOPERATIVE EVALUATION

All cases examined under slit lamp on first post operative day and Antibiotic, steroid and mydriatic eye drops given for all cases.

## DISCUSSION

- In our study rate of cataract was higher in boys (78.1%) when compared to girls (21.9%).
- 40% of cases were associated with nystagmus that indicates early onset of lens opacities.
- In our study visual prognosis was good in children with lamellar , posterior sub capsular cataract and in eyes with good fixation.

- Poor visual outcome was noted in children with nystagmus and in those with unilateral congenital cataract, and traumatic cataract with open globe injury.
- Most important concern is presence of congenital cataract even after 5 years of age.
- Hence examination by a qualified ophthalmologist should be made as a part of screening of a newborn child along with increased awareness among pediatricians regarding congenital cataract.

- Glaucoma -1.7%
- Uveitis-30.5%

### TAKE HOME MESSAGE

No child should be left unattended with cataract. Even if visual acuity is CFCF patients are greatly benefited with cataract surgery.

### RESULTS

Total eyes operated- (n) 130 of which males account for 78.1% and females account for 21.9%. 56.5% children are present in the age group of 4-10 years and 44.5%, 10 -15 yrs. Nystagmus present in 40% of cases.

Type of Cataract 55% cases are congenital neglected cataract cases. 30% are developmental cataracts and traumatic cataracts account for 15% cases.

POST - OP VISUAL OUTCOME: Visual acuity assessed on the first postoperative day, second week and Final visual acuity examined after 6 weeks and the results are as follows.

In 10% of cases post op visual acuity was 6/18-6/9. In 27% cases visual acuity was 6/24-6/36. Poor visual acuity was recorded in 63% cases, i.e. CF CF to 6/60.

### COMPLICATIONS

Most common complication was PCO and observed in 43% of eyes within 6-7 months. Iridocyclitis and glaucoma accounts for 21% and 15% respectively. 11% of eyes iol decentration noted.

### CONCLUSIONS

In spite of the advanced technology now at the disposal of an ophthalmologist, management of childhood cataract poses a significant challenge. Every child with cataract should be operated. Presence of a significant number of children over 4 years of age with congenital cataract suggests the importance of strengthening of primary eye care that helps in early diagnosis and management. School eye screening should be included as routine practice in all schools. Children in blind schools should also be evaluated in order not to miss those blind due to cataract.

### Other Studies

- Yorston et al -2001.
- 0-11 years. Anterior capsulotomy and lens aspiration .
- Bcva 6/9 -44%
- Less than 6/60 -91%.
- Pco-35%

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