

Original Article

ASSESSMENT OF CASES OF CONGENITAL CATARACT IN PATIENTS ADMITTED IN HOSPITALS OF LAHORE

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Objective: To observe the different patterns of congenital cataract in children and to determine the age at which maximum cases are reported.

Material and Methods: Descriptive cross sectional .Study was conducted on patients of congenital cataract in different hospitals of Lahore and Study duration was 03 months. All participants were selected by non probability purposive sampling technique. Parents of patients of congenital cataract were interviewed after taking verbal consent using questionnaire method. Data was analyzed using SPSS.

Results: In this study 30 cases of congenital cataract were examined age ranging from 0-8 years in the four hospitals of Lahore. Majority (70%) of the cases of congenital cataract are reported up to age 4 years. Out of 30 cases of congenital cataract 56% are male and 43% are female. Majority (83.3%) of cases are reported with bilateral congenital Cataract. Nystagmus and squint as associated symptoms are present in majority (63.3%) cases. Hereditary trait regarding congenital cataract is observed in 46.7% of cases. Maternal rubella infection as a cause of congenital cataract is reported in majority (73.3%) of cases. Congenital cataract in associated with metabolic disorders is reported in 26.7% of cases. Majority of patients (73.3%) are having lamellar pattern.

Conclusion: Most patients are reported up to the age of 4 years. Males are predominantly affected. Maternal rubella is found to be commonest cause. Most of cases are with bilateral presentation. Majority of cases have lamellar pattern.

Keywords: Congenital cataract, rubella Infection, blindness.

Introduction

Cataract is any light scattering opacity of lens present at birth. 2/3rd are bilateral, most of them are due to autosomal dominant mutation, unilateral cataracts are sporadic, only 10% have a definite cause. Infantile prevalence in U.S.A showed a rate of 3-4 visually significant cataracts per 10000 live births.¹ Common causes are hypoglycemia, trisomy, myotonic dystrophy, infectious diseases {TORCH}, prematurity. About fifteen genes involved in cataract formation have been identified and the inheritance is most often autosomal dominant, although it can be x-linked or autosomal recessive.² High summer heat upto 5 degree increase in apparent temperature may cause congenital cataract with 51% increase in the risk of congenital cataract.³ Cataracts are felt to be visually significant. If the treatment is delayed it can lead to amblyopia and visual loss can occur in later stages .Surgical intervention is the only option, the timing of surgery is critical for visual development, most investigators recommend surgery within the first two months of life.⁴ There has been evidence to suggest that before one month of age the risk of aphakic glaucoma is increased.⁵ Intraocular lens implantation in children is considered to be safe and

acceptable in children.⁶

Material and Methods

It was a descriptive cross sectional study conducted in Services Hospital, Lahore, Jinnah Hospital, Lahore, Mayo Hospital, Lahore, Rehmat Begum Trust Hospital, Lahore. The study duration was three months. The study subjects were children up to 8 years of age. Patients with acquired cataract were excluded from the study. All the parents of the subjects were explained the purpose and process and benefits of the study. Confidentiality was ensured. A check list and a questionnaire was developed. Cataract was diagnosed by screening eye examination including.

- 1) Red reflex test by direct ophthalmoscope.
- 2) Slit lamp examination.

A Sample of 30 patients was selected by non probability purposive sampling technique. Data was analyzed by SPSS computer software.

Results

In our study we observed that 70% of the reported cases of congenital cataract were up to age 4 years. Out of 30 cases of congenital cataract, 56% were

male and 43% were female (**table-1**). It was observed that majority (83.3%) reported with bilateral congenital Cataract (**table-3**). Nystagmus and squint as associated symptoms was present in majority (63.3%) cases. Hereditary trait regarding congenital cataract was observed in 46.7% of cases. Maternal rubella infection as a cause of congenital

cataract was reported in majority (73.3%) of cases. Congenital cataract in associated with metabolic disorders was reported in 26.7% of cases. On slit lamp examination of cases of congenital cataract. It was observed that majority of patients (73.3%) were having lamellar pattern (**table-4**).

Table-1: Slit lamp pattern presentation of patient gender of patient cross tabulation count.

Gender of Patients			Presentation of Patient		Total
			One eye	Both eyes	
Male	Slit Lamp Pattern	Lamellar	02	11	13
		Posterior Capsular	02	02	04
		Total	04	13	17
Female	Slit lamp Pattern	Lamellar	0	09	09
		Posterior Capsular	01	03	04
		Total	01	12	13

Table-2: Age of presentation in years(grouped) associated symptoms of patient cross tabulation count.

Age of presentation in years		Associated symptoms of patients		Total
		Present	Absebt	
Age of presentation in years	4 or less	13	08	21
	5 or more	06	03	09
Total		19	11	30

Table-3: Presentation of patient mode of delivery cross tabulation count.

Presentation of patients		Mode of delivery		Total
		Normal	C-section	
Presentation of patients	One eye	05	0	05
	Both eyes	18	07	25
Total		23	07	30

Table-4: Slit lamp pattern presentation of patient age of presentation in years(grouped) cross tabulation.

Age of presentation in years (grouped)			Presentation of Patient		Total
			One eye	Both eyes	
4 or less	Slit Lamp Pattern	Lamellar	02	13	15
		Posterior Capsular	02	04	06
		Total	04	17	21
5 or more	Slit lamp Pattern	Lamellar	0	07	07
		Posterior Capsular	01	01	02
		Total	01	08	09
Total	Slit lamp Pattern	Lamellar	02	20	22
	Posterior Capsular	03	05	08	
Total			05	25	30

compilation and analysis.

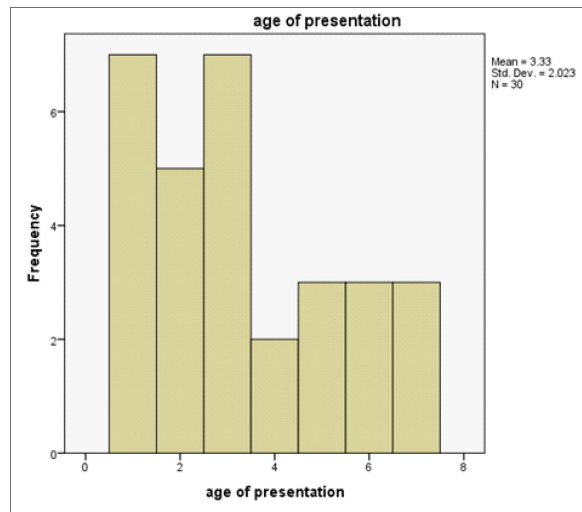


Fig-1: Age of presentation.

Discussion

Congenital cataract is responsible for nearly 10% of all vision loss in children world wide.¹⁶ Their early detection and treatment holds a vital position in the prevention of permanent visual loss. In this study, 30 cases of congenital cataract were examined age ranging from 0-8 years in the four hospitals of Lahore. In our study we observed that 70% of the reported cases of congenital cataract were up to age 4 years.

Out of 30 cases of congenital cataract 56% were male and 43% were female (**table-1**), this is in accordance with the research carried out in West Bank and Gaza Strip.¹⁷ It was observed that majority (83.3%) were reported with bilateral congenital Cataract (**table-3**). It is in accordance with the result of a research carried out in United Kingdom.¹⁸ Nystagmus and squint as associated symptoms was

present in majority (63.3%) cases and is in accordance with research carried out in United States of America that these are most common ocular anomalies associated with congenial cataract.¹⁹ Hereditary trait regarding congenial cataract was observed in 46.7% of cases. According to research carried out in china upto 25% of cases of congenial cataract are believed to be inherited.²⁰

Maternal rubella infection as a cause of congenial cataract is reported in majority (73.3%) of cases. This result is in contraindication with research carried out in South India.²¹ Higher incidence of maternal rubella infection in Pakistan is due to unhygienic delivery practices and lack of awareness about rubella vaccination. Congenial cataract in associated with metabolic disorders is reported in 26.7% of cases. It is in accordance with the research carried out in U.S.A which shows that only few cases of congenial cataract are associated with metabolic disorders.²²

After slit lamp examination of cases of congenial cataract it was observed that majority of patients (73.3%) were having lamellar pattern.

Conclusions

Most patients were reported up to the age of 4 years. Males were predominantly affected. Maternal rubella was found to be commonest cause of congenial Cataract due to septic birth practices. Majority of cases of congenial cataract were with bilateral presentation. Majority of cases had lamellar pattern on slit lamp examination.

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