Factors Influencing Age at Detection and Age at Presentation of Childhood Cataract in Ibadan

Olusanya BA, Ugalahi MO, Adeyemo AO and Baiyeroju AM

Department of Ophthalmology, University College Hospital, Ibadan
Corresponding author: Adeyemo AO. E-mail: aaoadeyemo@gmail.com

Introduction: Childhood cataract is a major cause of blindness/impaired vision worldwide; with the burden of the disease more in the developing world[1]. Cataract is described as the most important cause of treatable childhood blindness[2]. Effective outcome of treatment therefore depends on timely removal of cataract and appropriate optical rehabilitation[1]. This study aimed to determine the factors influencing the age at detection and age at presentation of patients with childhood cataract in University College Hospital (UCH), Ibadan.

Methods: A retrospective review of children who presented to UCH eye clinic with cataract between 2011 and 2015. Case notes were reviewed and data on age at detection and presentation as well as other clinical information was collected and analyzed using STATA 12 statistical software. Early presentation was defined as presentation within 3 months of detection for congenital cataracts and 6 months for developmental cataracts.

Results: A total of 164 cases were reviewed and analyzed, 52.4% of which were males. Median age at presentation was 60 months with a range of 1 – 276 months, while the median age of patients at detection was 13.5 months with a range of 0-156 months. Seventy four (45.1%) patients had congenital cataract, 31.1% had developmental

Table 1: Effect of patients' characteristics on median age at detection and median age at presentation

Type of cataract	**Gender**	**Median Age at detection (months)**	P value	**Median Age at Presentation (months)**	P value
Congenital	Male	0	0.3308	14	0.2524
	Female	0		19.5	
Developmental	Male	60	0. 4692	84	0. 7038
	Female	48		90	
Type of cataract	**Person who noticed**	**Median Age at detection (months)**	P value	**Median Age at Presentation (months)**	P value
Congenital	Mother	0	0. 2806	17	0.0085†
	Others*	0		72	
Developmental	Mother	48	0.2408	72	0. 0065†
	Others*	72		114	

** Others: Other care givers e.g. father, grandparents, e.t.c*
† P value is < 0.05 (statistically significant)

Table 2: Effect of patients' characteristics on presentation (early versus late)

		Presentation		
Type of cataract	**Gender**	**Early** Number (%)	**Late** Number (%)	P value
Congenital	Male	13 (36.1%)	23 (63.9%)	0.15
	Female	8 (21.1%)	30 (78.9%)	
Developmental	Male	6 (26.1%)	17 (73.9%)	0.29
	Female	4 (14.3%)	24 (85.7%)	
Type of cataract	**Person who noticed**	**Early** Number (%)	**Late** Number (%)	P value
Congenital	Mother	20 (32.3%)	42 (67.7%)	0.09
	Others*	1 (8.3%)	11 (91.7%)	
Developmental	Mother	8 (24.2%)	25 (75.8%)	0.26
	Others*	2 (11.1%)	16 (88.9%)	
Type of cataract	**State of domicile**	**Early** Number (%)	**Late** Number (%)	P value
Congenital	Oyo state	12 (25.0%)	36 (75.0%)	0.38
	Other states	9 (34.5%)	17 (65.4%)	
Developmental	Oyo state	6 (18.8%)	26 (81.3%)	0.84
	Other states	4 (21.1%)	15 (78.9%)	
Type of cataract	**Source of referral**	**Early** Number (%)	**Late** Number (%)	P value
Congenital	Public hospital	12 (28.6%)	30 (71.4%)	0.98
	Private/ Mission hospital	4 (30.8%)	9 (69.2%)	
	Eye Outreach unit	2 (22.2%)	7 (77.8%)	
	Self-referral	3 (30%)	7 (70%)	
Developmental	Public hospital	6 (20%)	24 (80%)	0.36
	Private/Mission hospital	3 (33.3%)	6 (66.7%)	
	Eye Outreach unit	1 (8.3%)	11 (91.7%)	
	Self-referral	Nil	Nil	

** Others: Other care givers e.g. father, grandparents, e.t.c*

cataract, and 21.3% had traumatic cataract. Median age at presentation for congenital cataract was 18 months and 84 months for developmental cataract, however, only 28.4% of the congenital cataracts presented early, while 19.6% of developmental cataracts presented early.

Discussion: The average age of children presenting with cataracts in our setting is older than in developed countries[3]. The median age at detection and presentation was not significantly affected by the child's gender in our study. Similar studies in Eastern Africa showed no statistically significant difference in early versus late presentation when males were compared with females[4]. There was a significant difference in the age at presentation of patients whose mothers detected the cataract compared with children

whose cataract was noticed by others within each subgroup of cataract type. Furthermore, children whose mothers detected the cataract were more likely to present early, although this difference was not statistically significant. This suggests that education and empowerment of mothers may encourage early presentation and therefore, prompt treatment of childhood cataracts. The proximity of residence to the hospital as depicted by the state of domicile appears not to have any statistically significant effect on early presentation. The fact that almost one-fifth of the referrals were from the outreach unit suggests that the current healthcare structure is not all inclusive and a significant portion of the population are still unreached.

Conclusion: Majority of children with childhood cataract still present late for treatment in our setting and this may have a negative effect on treatment outcome. Education of mothers and other caregivers about childhood cataract and the need for early treatment may encourage earlier presentation. Outreach activities may help improve time of presentation.

References

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