

Prevalence of Ocular Morbidity Among School Children (6-15 Years) in Kurnool District, Andhra Pradesh

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Abstract: ***Purpose:** This study was carried out in school screen programme for the ocular morbidity among the 6-15 years of age in the rural area of Kurnool district, Andhra Pradesh. **Design:** School-based cross sectional study¹. **Methods:** Trained ophthalmic assistants performed visual acuity measurements using Snellen chart and examination of external eye with torchlight, for children aged 6-15 years children from rural schools in Kurnool. The children² were examined by experienced Ophthalmic Assistant, refraction and subjective correction, cycloplegic refraction done. The children not improving with this procedure referend to Regional eye Hospital Kurnool and through ophthalmic examination done by using Slit lamp, Direct ophthalmoscope and indirect ophthalmoscope, Auto refractometer, Hirschberg's test with torch light, cover test and prism bar test. **Results:** An ophthalmic assistant screened 29,351 children Refractive errors (20.18%), congenital cataract (13.9%), strabismus (23.9%) Amblyopia (7.2%). Cornea Diseases (12.2%) Nystagmus (12.2%) other miscellaneous (30.6%) were the cause of ocular morbidity in this population. **Conclusions:** Refractive errors, strabismus, cataract in children, nystagmus and corneal diseases were the major cause of ocular morbidity.*

Keywords: Ocular morbidity, refraction, Snellen's chart, Visual acuity.

1. Introduction

Ocular problems are more common in school going age children. It is also well recognized that the burden of visual impairment has enormous social economic impact limiting educational potential and quality of life in otherwise healthy people. Uncorrected refractive errors form the primary cause for the visual impairment and blindness in India. This warrants early detection and treatment of these problems to prevent future blindness. The study conducted to estimate the ocular problems among school going children in rural area and to create eye awareness among them. All children were examined by the school teacher preferably science teacher by using E and Snellen's chart keeping the distance of 6 meters. Those separated children were examined by Paramedical Ophthalmic Assistant and refraction done by using subjective correction, retinoscopy and cycloplegic refraction, direct ophthalmoscopic examination. The children not improved with refraction and other ocular problems examined by the ophthalmologist for cornea, conjunctiva, anterior chamber, iris and pupil.

2. Material and Methods

A total of 29,351 children of 6-15 years studying in rural area schools were included and screened from August 2012 to March 2013 in Kurnool District, by using Snellen's chart and E chart at a distance of 6 meters in good day light who were having the less than 6/9 vision detailed ophthalmic examination was done as a part of school eye screening programme by the paramedical ophthalmic assistant, refraction, subjective correction and cycloplegic refraction done, 5,924 total children prescribed spectacles, 2,075 children were boys and 3,749 children were girls. Total 180 children were referred to Govt. Regional Eye Hospital, Kurnool for further evaluation. The children examined by ophthalmologist by using Auto refractometer, cycloplegic

refraction, direct ophthalmoscope and indirect ophthalmoscope slit lamp

3. Discussion

A total of 29,351 children of 6-15 years studying in rural area schools were included and screened from August 2012 to March 2013 in Kurnool District, Refractive errors³ were 5,924 (20.18%), 2,075 were the boys (36.72%), 3,749 were the girls (63.28%), strabismus 39 (23.9%), cataracts were (13.9%) (congenital and traumatic) Nystagmus were 23 (12.2%), amblyopia were 12 (7.2%), corneal morbidity (12.2%).

Table 1: Refractive errors incidence:

S.No.	Total no refractive errors.	Gender wise	No. of refractive errors.	Percentage (%)
1	5,924	Male	2,175	36.72
2	5,924	Female	3,749	63.28

Table 2: Strabismus morbidity

S.No	Total No. of children with strabismus.	Gender	No. of children	Percentage (%)
1	43	Male	23	53.49
2	43	Female	20	46.51

Table 3: Total Ocular Morbidity in school children from 6 – 15 years of age

1	Keratoconus	2
2	Congenital Cataract	22
3	Squint	39
4	Albinism	4
5	Microphthalmus And Coloboma Of Iris And Choroid	5
6	Ptosis	20
7	Nystagmus	20
8	High/ Pathological Myopia	5
9	Adherent Leucoma	5
10	Congenital Cataract And Nystagmus	3

11	Corneal Opacity	20
12	Amblyopia	12
13	Pthisis Bulbi	6
14	Conjunctival Cyst	1
15	Post Traumatic Atropic Bulbi	1
	Total	180

4. Conclusion

The present study confirmed that the ocular morbidity in school going children between 6 – 15 years of age Refractive errors were common problem followed by strabismus, vit. deficiet .

References

- [1] Dandong R, Dandong L, Srinivas M, Sahare P, Narsaiah S, Munoz SR, *et al.* Refractive error in children in a rural population in India. Invest Ophthalmol Vis Sci 2002;43:615-22.
- [2] Limburg H, Kansara H.T, D.Souza S. Results of school eye screening of 5.4 million children in India - a P ve-year follow-up study. Acta Ophthalmol Scand 1999;77:310-4.
- [3] Nirmalan PK, Vijayalakshmi P, Sheeladevi S, Kothari MB, Sundaresan K, Rahmathullah L. The Kariapatt i pediatric eye evaluation project: baseline ophthalmic data of children aged 15 years or younger in Southern India. Am J Ophthalmol 2003;136: 703-9.
- [4] Kalikivayi V, Naduvilath TJ, Bansal AK, Dandona L. Visual Impairment in school children in southern India. Indian J Ophthalmol 1997;45:129-34.
- [5] Desai S, Desai R, Desai N, Lohiya S, Bhargava G, Kumar K. School Eye Health Appraisal. Indian J Ophthalmol 1989;37:173-5.
- [6] Kumar R. Ophthalmic manpower in India. need for a serious review. Int Ophthalmol 1983;17:269-75
- [7] Dandona R. Optometry and Eye Care in India. Indian J Ophthalmol 1998;46:175.