



## PREVALENCE OF COMMON EYE PROBLEMS IN PEDIATRIC OPD IN A TRIBAL MEDICAL COLLEGE AND HOSPITAL ADILABAD .

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### ABSTRACT

**PURPOSE:**To determine the frequency of common eye diseases in children attending to outpatient department of a tribal based medical college and hospital in Adilabad, Telangana.

**MATERIALS AND METHODS:**A total of 378 patients with complaints of blurred vision, headache, redness, itching, watering of eyes, trauma and with nutritional deficiency signs were included in this study. Detailed examination as required was done at Department of Ophthalmology, Rajiv Gandhi Institute Of Health Sciences (RIMS) Adilabad district from 1st January to December 2016.

Visual acuity and refraction was performed under cycloplegia. Anterior segment was examined with the help of direct ophthalmoscope and slit lamp. Posterior segment examination was performed after dilating pupil with mydriatic drops using direct and indirect ophthalmoscopes. Intraocular pressure was checked where needed. All information was documented and data was analyzed. Mean age and common eye infections was categorised as per frequency of occurrence and percentages from high to low .It was found that headache with blurred vision was the most common eye complaint followed by other conditions.

**RESULTS:** Frequency of commonest eye condition was conjunctivitis 41.3, naso lacrimal duct blockage 21.8%, vernal keratoconjunctivitis 14.3, headache with blurred vision i.e. 9.4%, hypermetropia 7.3%, myopia 5.9%.

**CONCLUSION:** The most common eye problem was headache with blurred vision.. Conjunctivitis presented the second most common cause of paediatric ocular complaints, followed by other ocular conditions. Males were proportionally more affected than females.

**KEYWORDS :** Eye diseases, conjunctivitis, nasolacrimal l blockage, and vernal keratoconjunctivitis.

### Introduction

Eye diseases are very common in every part of the world and in all age groups. They affect quality of life. Frequency of ocular diseases varies from region to region in the same country, climatic and environmental changes, racial, socioeconomic and literacy factors.

1. The eye diseases that cause visual problems are different in different age groups. In adults most of the visual problems are caused by diabetes/hypertension in advanced stages and age related cataract but in children congenital infective problems, nutritional deficiencies and trauma are more common. Socio economic status, climatic conditions ,literacy factors' and child immunity factors contribute to some infections. Pediatric ophthalmic disorders are important because of their impact on child's development, education, future work and quality of life. Their early diagnosis and initiation of treatment may reduce the incidence of blindness in later life. In infants and children common eye diseases include headache, conjunctivitis, vernal keratoconjunctivitis, nasolacrimal duct blockage, refractive errors like hypermetropia and myopia. Prompt diagnosis and treatment of these problems is must as they can lead to permanent visual loss in later life.

2 Global incidence of conjunctivitis is 42.5%<sup>2</sup> vernal keratoconjunctivitis is 27%<sup>3</sup>, nasolacrimal duct blockage is 30%<sup>4</sup>, hypermetropia is 8.4%<sup>5</sup> and myopia is 6.3%<sup>6</sup>. An international survey revealed that among 45 million people who were blind in year 2000, 1.4 million were children and unfortunately majority would be living in poorest regions of Asia and Africa.

In INDIA childhood eye infections remains a significant public health issue as children under 12 years contribute 42% of total population. Clinically no published data is available on this very important health issue however it has frequently been reported from other regions of the world. This study will help to generate local data and will contribute to evaluate the burden of this problem in our society. The objective of our study was to determine the frequency of common eye conditions in children attending paediatric outpatient department of a tribal based teaching hospital.

### MATERIAL AND METHODS:

This study was a prospective study. All the children from paediatric

OPD presenting with eye diseases were included in this study and examined in the department of ophthalmology ,RIMS Hospital, Adilabad from 1<sup>st</sup> January to 31<sup>st</sup> December 2016. A total of 378 Children of from 1 to 12 years of age coming with any of these complains like headache, blurred vision, redness, itching and watering of eyes, trauma, vit-A deficiency signs were included. Children having vision loss due to recent ocular trauma, history of ocular surgery, congenital anomalies, using topical or systemic steroid for at least 1 week were excluded from the study as steroids can mask various diagnostic signs and raise intraocular pressure.

Patients fulfilling inclusion criteria were approached through outpatient paediatric department and detailed history was taken and detailed examination was done in the ophthalmology department after obtaining a full informed consent from parents. Refraction was performed under cycloplegia where required. Anterior segment was examined with the help of direct ophthalmoscope and slit lamp. Posterior segment examination was performed after dilating pupil with mydriatic drops using direct and indirect ophthalmoscopes and fundus contact lenses e.g. 90 dioptre lens. Squint assessment was done using test for version and ductions, Hirschberg's test and cover-uncover test. Outcome variables like abnormal visual acuity, conjunctivitis, vernal keratoconjunctivitis, nasolacrimal duct blockage, hypermetropia and myopia were measured as per operational definitions. All information was entered in proforma and data was analyzed.

Male to female ratio was computed along with gender distribution. Frequency and percentages were computed for categorical variables of all the conditions.

### RESULT :

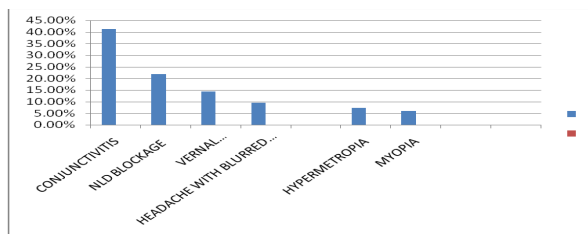
A total of 378 patients were included in this study of which 202(53.43%) were males and 176 (46.56%) females. The average age of the children between 1 to 12 years of age was  $6.2 \pm 2.8$  years as shown in **Table 1**. Frequency of commonest eye condition was conjunctivitis 41.3, naso lacrimal duct blockage 21.8%, vernal keratoconjunctivitis 14.3, headache with blurred vision i.e. 9.4% , hypermetropia 7.3%, myopia 5.9%. **Table 2**. All of these conditions were slightly more common in boys than girls.

**Table 1: Descriptive statistics of age of the children.**

MALE	202 (53.43%)
FEMALE	176 (46.56%)
MEAN AGE	6.2 +/-2.8

**Table .2-Analysis of common eye conditions.**

CONJUNCTIVITIS	41.3%
NLD BLOCKAGE	21.8%
VERNAL KERATOCONJUNCTIVITIS	14.3%
HEADACHE WITH BLURRED VISION	9.42%
HYPERMETROPIA	7.3%
MYOPIA	5.93%

**DISCUSSION :**

Paediatric ophthalmic disorders are important because of their impact on child's over all development, education and future opportunities for good quality of life. The global prevalence of blindness is 0.78/1000 and there are estimated 1.5 million blind children. Approximately 500,000 children becoming blind every year, one every minute and half of them die within one to two years of becoming blind.

In this study frequency of commonest eye condition was conjunctivitis 41.3, naso lacrimal duct blockage 21.8%, vernal keratoconjunctivitis 14.3, headache with blurred vision i.e. 9.4% , hypermetropia 7.3%, myopia 5.9%, similar finding was observed. In Sethi et al study 2 Conjunctiva was involved in 42.5%, vernal keratoconjunctivitis was 35.6% children followed by refractive errors involving 12.8.

In a developing country like India, childhood eye conditions remain a significant public health concern as children less than 12 years contribute to 42% of total population. In this study it was also observed that the affecting eye conditions varied in tribal, some rural and nearby urban areas, where occurrence of conjunctivitis was more in tribal areas which may be due to the changing humid climatic conditions and poor hygiene. On the other hand, corneal scarring and other conditions due to infections and nutrition deficiencies were less among children coming from near by urban areas which shows the knowledge and good hygiene practises among them.

According to an international survey, among 4.5 million people who were blind in year 2000, 1.4 million were children with majority of them residing in poorest region of Asia and Africa. In a survey among school children aged 6-10 years in South Africa revealed a prevalence of vernal keratoconjunctivitis to be 11.8% in boys and 8.3% in girls. Corneal diseases accounted for 4.9% of paediatric ophthalmic disorders. In one study it was found out that refractive errors account for 8% cases of unocular blindness in North West Frontier Province 13 and Squints accounted for 11.8%. There is variability in the prevalence of hypermetropia worldwide, from 0.7% in rural India 14, 21 to 21.6% for 5-7-year olds in Child. 10

In this study all the eye conditions studied were high among boys. Ojaimi et al, also studied school children in Australia and found an overall myopia prevalence of 1.4%. They found a significant difference between white European children (0.79%) and those belonging to other ethnicities (2.73%). In another Polish study in semirural population of children, the prevalence of myopia was slightly higher: 11.3% in those aged 10 years to 14.4% in those aged 12 years.

The pattern of underlying causes of childhood eye conditions varies considerably between developed and developing countries. In industrialized countries the main cause of childhood blindness are cataract, glaucoma, retinopathy of prematurity, genetic diseases and congenital anomalies. In developing countries blindness in children is usually caused by conditions which cause scarring of the cornea such as vitamin A deficiency, measles, infection, conjunctivitis of newborn

and harmful traditional eye practices . All of these are preventable causes of blindness. We need to work on elimination of such causes in collaboration with government and private sector and creating awareness among masses by information, education and communication in all the possible ways.

**CONCLUSION:**

The common eye condition affecting children in this area was headache with blurred vision which accounted for low vision/visual handicapped followed by conjunctivitis and NLD blockage.

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