

Prevalence of Ocular Morbidity among Children in Orphanages around Hubli, North Karnataka

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Abstract

Aim: To determine the prevalence of ocular morbidity among orphanages and to manage ocular problems encountered among children.

Materials and Methods: A Cross sectional study was carried out at two orphanages in Hubli, Karnataka. A total of 80 children aged less < 15 years were examined after informed consent from the owner of orphanages. History was taken and visual acuity, ocular examination, retinoscopy and fundoscopy was done on all children.

Results: A total of 80 children were examined from two orphanages in Hubli. Percentage of ocular morbidity was found to be 38.75%. The two main causes of ocular morbidity among children were refractive errors (22.5%) and vitamin 'A' deficiency (7.5%). Blepharitis was found among 3 children (3.75%) and pteryiasis among 2 children (2.5%). Nebular grade corneal opacity and acute infective conjunctivitis each was found among one child.

Conclusion: Percentage of ocular morbidity in this study is significant. This study strongly suggest that screening of orphanage children for ocular problems should be done at regular intervals.

Keywords: Prevalence; Ocular morbidity; Orphanages; Refractive errors.

Introduction

The term 'orphan' is used to refer to a child who has lost either one or both parents. Once child loses a parent or both parents, such a child may be adopted by relatives from either of the parent's families or may be sent to an orphanage. In most cases adopting parents live in different environments with which a child may or may not be familiar. There are almost always associated physical and psychological problems [1].

Since a large number of children have to be taken care of in orphanages; there is severe economic strain and burden. Orphanages were found to be less able to inculcate discipline and adequate socialization among children. It is difficult to provide even basic needs like food, decent living conditions and health care due to financial constraints and negligence. Because of these a child might develop multiple health problems, ocular health problems being one of them [2].

Some agencies such as UNICEF, world vision and Save the children fund (UK) [3] have devised special intervention programs to enable children to cope with orphanhood.

Inspite of these many of the orphaned children continue to experience emotional problems and health problems. If ocular health problems are not detected in time, then serious long term complications can occur like child may lose vision because of amblyopia due to chronic uncorrected refractive errors [4,5]. There are very few studies of such kind so that prevalence of ocular morbidity among children in orphanage is largely unknown. Hence the present study was carried to determine the prevalence of ocular morbidity among orphan children in Hubli, Karnataka.

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Aims and Objectives

1. To determine the prevalence of ocular morbidity among orphan kids.
2. To manage ocular problems among orphan kids.

Materials and Methods

This study was conducted among 80 children in two orphanages in Hubli, Karnataka during the month February 2016 to April 2016. The required permission for screening of the children was obtained from concerned authority of an orphanage. They were briefed about the aims and objectives of the study.

All children aged 5 to 15 years in an orphanage were included in the study. About 80 children were examined. Brief demographic details, medical and family history of each child was recorded. Visual acuity testing using snellen chart and E chart was done. Anterior segment examination was done with torch light.

Abnormalities in head posture with special attention for squint was observed. Child with diminution of vision or any other ocular problems were called to KIMS hospital and detailed examination under slit lamp and refraction under cycloplegia was done. A detailed fundus examination was done.

Results

A total of 80 children from two orphanages in Hubli were included in the study.

Among the 80 children, 72 were male and 08 were female children. All children above 5 years and below 15 years were included in our study. Among them 23 children were in 5-10 year group, 22 children were in 11-12 year group and 35 children were in 13-15 year group.

Ocular health problems were found among 38.75% (31 children).

Refractive errors were found to be as most common cause of ocular problems which was among 22.5% i.e in 18 children. Myopia was found to be most common cause of refractive error which was found among 12 children (15%). Signs of vitamin A deficiency were found among 6 children (7.5%). Blepharitis was found in 3 children (3.75%) and pthyriasis was found among 2 children (2.5%).

Nebular grade corneal opacity was found among 1 girl child and acute infective conjunctivitis in one child.

19 children were having uncorrected visual acuity of less than 6/6 which was checked with snellen 'E' charts.

The girl child with nebular grade corneal opacity was having visual acuity as 6/36 which was not improving with pin hole.

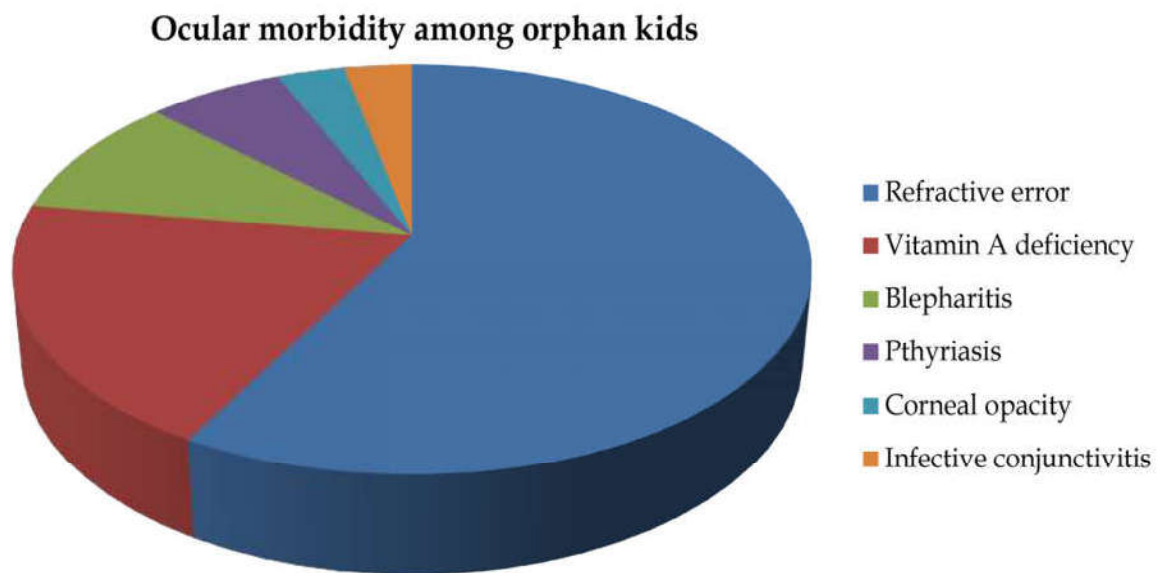


Fig. 1: Pie chart showing pattern of ocular morbidity among orphan kids

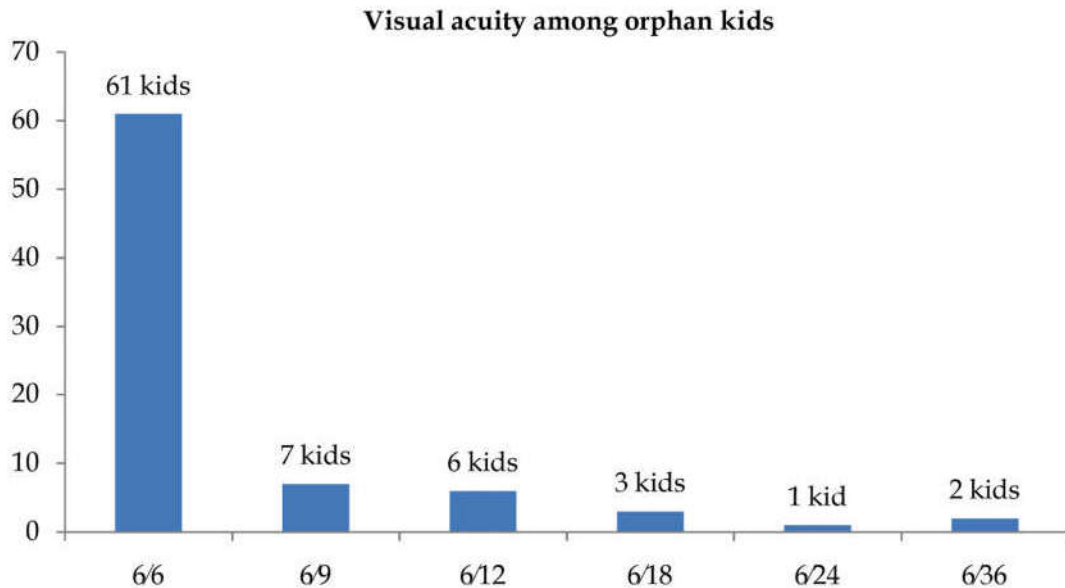


Fig. 2: Bar diagram showing visual acuity pattern among orphan kids

Discussion

Healthy eyes and vision are a critical part of a child's daily living and development. Sometimes children are suspected of having learning disabilities, dyslexia or attention deficit problems when the real culprit is their defective vision. Hence vision plays an important role in overall performance of a child. Serious irreversible complications may occur if ocular problems are not treated on time. Orphan kids are one of the vulnerable group for such things.

Ocular morbidity in orphan children has been found to range from 9.8% to 33.7% in different studies [6-8]. Percentage of ocular morbidity in this study is 38.75%, which is higher than study which was carried out in Nepal (31.6%) [7].

Refractive errors were found to be most common cause of ocular morbidity in this study which is 22.5%, among them myopia was found to be present in 12 children (15%) which was found to be the most common refractive error in this study. Best corrected visual acuity was 6/6 for all children with refractive error after giving correction. None of the children with refractive error were using spectacles previously.

Signs and symptoms of VIT A deficiency in this study i.e. bitot's spot and dry lustreless cornea was found in 6 children (7.5%) which was second most common cause of ocular morbidity in this study.

Infective conditions of lids and eyelashes like blepharitis and ptyriasis was found to be third most

common cause of ocular morbidity in this study. The reason behind this finding could be due to poor hygiene and living condition of the orphan children.

Nebular grade corneal opacity which was present in pupillary area found in one girl child. She was giving history of pain, redness and photophobia 6 moths back. This could be due to untreated keratitis.

Limitation of this study is overall difference in percentage of ocular morbidity in males and females couldn't be made out as out of two orphanages studied one was made only for males. But other studies shows prevalence of infectious diseases like conjunctivitis and blepharitis more among females because of increased use of common ocular cosmetic material [10,11].

Conclusion

In this study, we found that refractive errors were the most common cause of ocular health problem prevalent among children followed by vitamin A deficiency. This study strongly suggest that screening of orphanage children for ocular problems should be done at regular intervals. For this orphanage staff workers should be oriented and trained in identifying common eye problems among the children so that these children can be referred for prompt treatment. They should also impart awareness regarding ocular hygiene among children. In this manner the incidence of ocular morbidity and blindness among the orphan children will be truly minimized.

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