

Abstract

Hospital based Refractive Error Study in Children at Chittagong Eye Infirmary and Training Complex

Abdul Mannan Sikder a, Murtuza Nuruddin a, Munirujzaman Osmanib

Objectives: To determine the pattern of refractive error in school going children attending at Chittagong Eye Infirmary and Training Complex (CEITC).

Participants and Methodology: All the children between 5 to 15 years of age attending at CEITC and found to have visual impairment due to refractive error were included in the study. The examination included visual acuity assessment, ocular motility evaluation, cycloplegic refraction, examination of the anterior segment, and fundus. Children having any pathology in anterior segment, media or posterior segment were excluded from the study. Myopia was defined as spherical equivalent required of at least -0.50 D and hyperopia + 2.00 D or more.

Results: A total of 500 children were included in the study. In uncorrected state 44% children had visual acuity less than 6/18 and after best correction only 3% had the same. Myopia was present in 64.6% cases and hyperopia was present in 22.6% cases. For both forms of refractive error the association with age and sex was not statistically significant. Astigmatism of 0.75 D or more was present in 56% cases. Amblyopia was found in 26.6% cases.

Conclusion: In Bangladesh visual impairment due to refractive error is an important public health issue. Trained personnel who can perform refraction on children and provision of cost effective spectacles should be an integral part for any initiative to combat visual impairment in children from refractive errors. *Al-Shifa Journal of Ophthalmology 2009; 5(1): 16-23 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan*