Abstract

Estimation of refractive errors among school going children, Karnataka

Purpose: The main objective of this study was to estimate the children with refractive errors and correct them at the earliest.

Method: A school screening was conducted in all the schools in Karnataka where children were not provided with proper medical care after being permitted by the school head. Children were asked question on their chief complaints and vision was checked using Log Mar chart and +1.50D test was done for each eye separately. Post which colour vision was tested for all the boys. Near point of convergence (NPC) was tested using accommodative target. Any child failing in any of the above tests underwent refraction. IPD was measured to prescribe glasses for the children with refractive error.

Any child with poor vision or other ocular abnormalities were referred to a base hospital for further management.

Result: A total of 1315 children were included into the study with the age group of 11.98±7.07yrs, among which 755 were males and 556 were females. 123 out of 1315 children had refractive error and were given glasses and those with negligible amount of refractive error of ±0.25Ds and ±0.25Dc were not provided with any glasses. Among 123 eyes, 50 had myopia, 16 had hyperopia, 28 had myopic astigmatism, 11 had hyperopic astigmatism, 17 had simple myopic astigmatism and compound myopic astigmatism and 1 had mixed astigmatism.

Around 47 children had refractive error between the age group of 6y-12y and 76 eyes had refractive error between the age group 13y-17y.

124 children were referred to base hospital due to various reasons like 9 with nystagmus, 18 with poor colour vision, 40 with poor binocular vision status and strabismus, 49 defective vision, 1 DRS, 1 Redness, 1 with scissor reflex in retinoscope, 2 Iris coloboma , 1 nebular opacity and 2 correctopia