

## **Abstract**

### **Estimation of refractive errors among school going children, Karnataka- Project Drishyam -A gift of Sight**

*Purpose:* The main objective of this study was to conduct a comprehensive eye examination of government school children thereby estimating the children with refractive errors and other eye ailments, correct them and refer them as the case may be at the earliest.

*Method:* Comprehensive eye screening was conducted by qualified optometrists from Sankara college of optometry, Bangalore in schools of Karnataka after due permission by the school heads. The schools that has access by Ladies circle were the ones that were targeted, as the ground logistics were taken care of ladies circle. A standard eye screening protocol similar to the one developed by ORBIS International for children eye screening was followed. 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 color vision was tested for all children. 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  $11.98 \pm 7.07$  yrs, 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  $\pm 0.25$  Ds and  $\pm 0.25$  Dc 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. Spectacles were provided by Aloka Vision of Zeiss (Zeiss CSR) free of cost to these children.

124 children were referred to base hospital due to various reasons like 9 with nystagmus, 18 with poor color 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