

Functional Vision with X Chrome Lenses

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Graph 1: shows gender wise distribution of the patients wearing x-chrome contact lenses.



Graph 2 shows age wise distribution of the patients wearing x-chrome contact lens.



Graph 3 shows distribution of patients according to color vision deficiency.

	Visual acuity	Contrast sensitivity	Stereopsis	Colour vision
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Table 1: shows mean and p value of visual functions with lenses.

X-chrome color contact lens is a monocular lens worn in non-dominant eye. It is theorized that binocular individuals wearing one lens send new and possibly confusing information to brain. Through the process of retinal rivalry, information from the each eye is alternated such that a new perception of color discrimination is observed by an individual [3]. Color confusions have a variation of lightness. If wavelength of green pass through it they become darker and with red wavelength lighter. If a color deficient wears a red lens and views object of red and green color, the green portion will look darker than the red, so that previously blended two colors will be visible separate.

In this study, 10 existing x-chrome lens users were taken and their visual function like visual acuity, contrast sensitivity, color vision and stereopsis is evaluated with and without lenses. According to Statistical analysis, binocularly negligible change is observed in visual acuity as well as contrast sensitivity with p values of 0.0155 and 0.010 respectively. So, if this lens is prescribed in childhood only, rather than in elder group, patient will get easily adapted and academic problems can also overcome with the prescription of this lens in pediatric age group.

1. Paul L. Pease (2006) Borish's Clinical Refraction. William J. Benjamin Second ed: 296-352
2. Harry IZ (1982) Text-chrom Manual. Second ed.
3. Ali (1974) Color Correction Lenses (also called as Dyslexia lenses or X-Chrome lenses) (Therapeutic Soft Contact Lenses)