

EFFECT OF CONTRAST SENSITIVITY ON LIFE STYLE FOR DIFFERENT AMOUNT OF DEVIATIONS

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Abstract

Purpose: The aim of the present study is to compare the effect of Contrast Sensitivity on life style for different amount of deviations.

Methods: Prospective, Cross sectional and observational study was performed at tertiary eye care centers. Subjects with Ocular deviation between 10 to 40 prism diopters, Corrected distance Contrast Sensitivity should be greater than 6/18 and Age should be between 10 to 40 years of age were included in the study. Questionnaire was prepared on the effect of Contrast Sensitivity on the Life style in presence of Ocular deviation in different amounts of Deviation. Response score of the subjects were noted and Mean score of the responses were compared in different amounts of deviation. Data was analyzed using SPSS software version 20.

Results: 50 subjects were included in the study. Out of that, 28 subjects were included in 11-20 age group, 18 subjects in 21-30 and 4 subjects were in the age group of 31-40 years. 54% subjects were Females and 46% were Males. Comparison of mean score of Questions on Contrast Sensitivity for different amount of deviation was analyzed and it shows that with increasing amount of Ocular deviation, Contrast Sensitivity and its effect on Lifestyle hampers more.

Conclusions: In cases of Ocular deviation, with increase in amount of deviation, Contrast Sensitivity and its effect on Lifestyle deteriorates.

Key Words: Amount of Deviation, Contrast Sensitivity, Lifestyle

Introduction

Ocular deviation is a very important factor for Contrast Sensitivity. Because in case of Ocular deviation, the images are focused on the para foveal region. In the macular region density number of cone cells variation is present. In the foveal region, number of cone cells and density is highest compared to para foveal region. So, there are chances of deterioration of Contrast Sensitivity with increase in amount of Ocular Deviation. When Contrast

Sensitivity deteriorates, then there may be the chances of hamper of lifestyle.

Methodology

50 subjects were included in the study. Prospective, Cross sectional and observational study was performed at tertiary eye care centers. Subjects with Ocular deviation between 10 to 40 prism diopters, Corrected distance Contrast Sensitivity should be

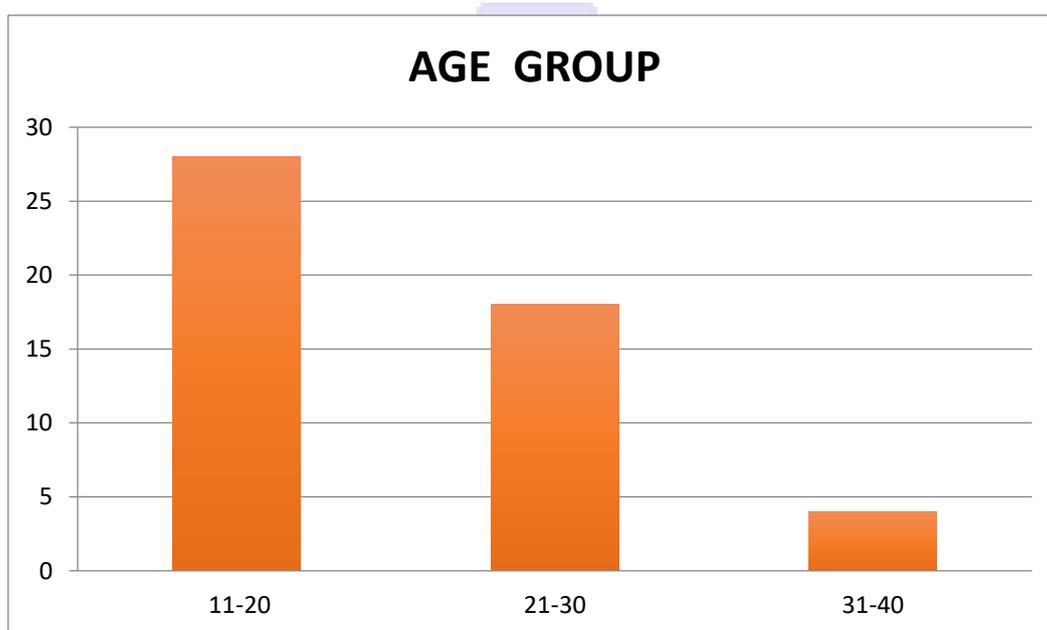
greater than 6/18 and Age should be between 10 to 40 years of age were included in the study. Individuals with any other systemic disease (specially which can affect study), Individuals with any other Ocular Pathology, with any active ocular infection, any ocular anomalies like Corneal Scar etc, ocular deviation if less than 10 degree and Significant amount of amblyopic patient were excluded from the study. Full refractive correction along with detailed fund us evaluation was performed in each and every patient. All visual parameters were taken with full Refractive correction. Questionnaire was prepared on the effect of Contrast Sensitivity on the Life style in presence of Ocular deviation in different amounts of deviation. Options in the Questionnaire was kept using Likert 5-point scale system. Test – Re Test Reliability was performed and its score is 0.8. Response score of the subjects were noted and Mean

score of the responses were compared in different amounts of deviation. Data was analyzed using SPSS software version 20.

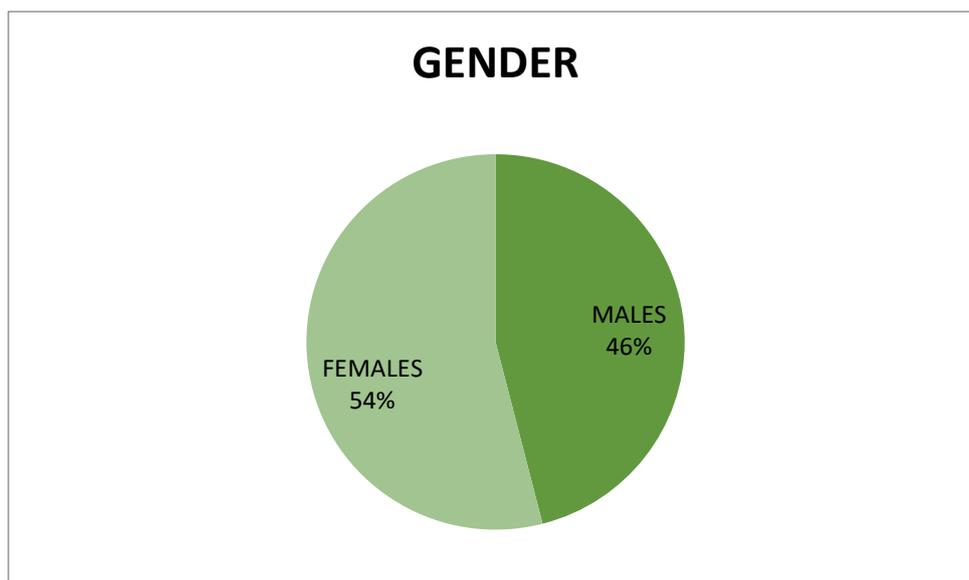
Results

50 subjects were included in the study. Graph 1 shows age wise distribution of the subjects. It shows that 28 subjects were included in 11-20 age group, 18 subjects in 21-30 and 4 subjects were in the age group of 31-40 years. Graph 2 shows Gender wise distribution of the subjects. 54% subjects were Females and 46% were Males. Graph 3 shows comparison of mean score of Questions on Contrast Sensitivity for different amount of deviation. As amount of ocular deviation increases, Contrast Sensitivity decreases and as a result, effect on Life style hampers more.

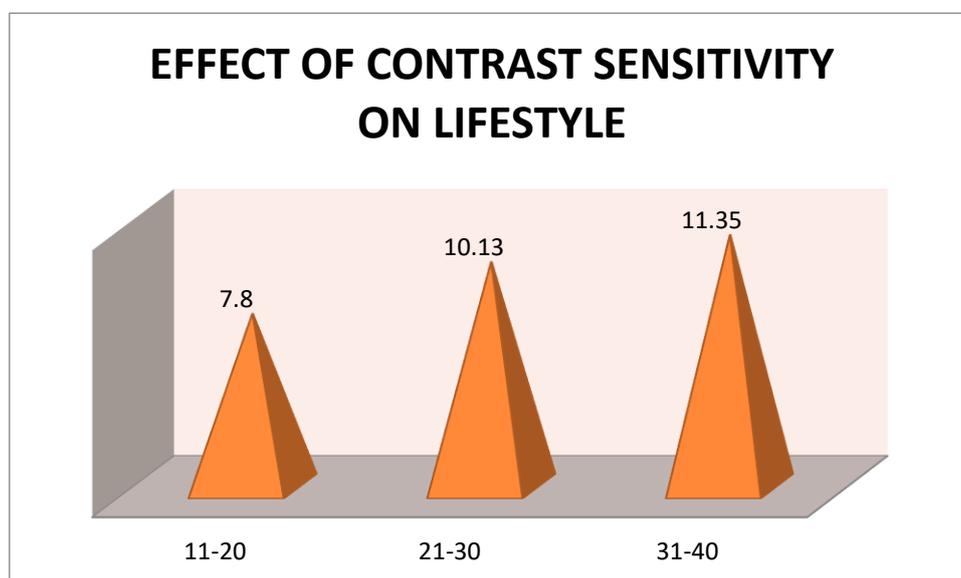
Graph 1: Shows Age Wise Distribution of the Subjects



Graph 2: Shows Gender Wise Distribution of the Subjects



Graph 3: Comparison of Mean Score of Questions on Contrast Sensitivity for Different Amount of Deviation



Discussion

In case of Ocular deviation images of an object falls on parafoveal region and due to inequality of the number of the cone cells in the macular region there may be chances of deterioration of Contrast Sensitivity with increasing Ocular deviation. In the present study, mean score of questions on Contrast Sensitivity for different amount of deviation is 7.8, 10.13 and 11.35 respectively which shows that Life style hampers more as amount of ocular deviation increases.

Conclusion

In cases of Ocular deviation, with increase in amount of deviation, Contrast Sensitivity and its effect on Lifestyle deteriorates.

Consent

Oral/ written consent was obtained from patient as well as from tertiary eye care centers.

Ethical Approval

It is not applicable.

Competing Interests

Authors have declared that no competing interests exist.

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