

Progression of Myopia in School Going Children During COVID Era

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Abstract : Purpose: The purpose is to observe the progression of myopia in school-aged children during the COVID-19 era, with home confinement having high exposure to screen time and fewer outdoor activities. Method: A Retrospective analysis was done for all mild, moderate, and high myopic school-going children who presented to L V Prasad Eye Institute (MTC-campus) from December 2019 to March 2021 with minimum 2 follow-ups (6 months and 1 year follow-up) with mean age group of 11.47 ± 2.73 and refractive error at presentation was OD 2.31 ± 1.66 in OD and 2.375 ± 1.83 in OS and mean BCVA (OD) 0.32 ± 0.06 , (OS) 0.31 ± 0.06 . The refractive error on the last follow-up was 3.23 ± 1.71 in OD and 3.30 ± 1.90 in OS, and the mean BCVA was 0.013 ± 0.039 in OD and 0.015 ± 0.043 in OS. Altogether 131 patients' data were analyzed who adhered to our inclusion and exclusion criteria, and a questionnaire was designed regarding the average screen-time exposure where all the parents were asked either face-to-face or were called over the phone to give feedback. Mean spherical values and annual myopia progression based on gender, age, severity of myopia, and interview data, which was analyzed by Kruskal Wallis test, and Mann Whitney test. Conclusion: When compared based on the severity of myopia, myopia progression was found more in emmetropes rather than mild, moderate and high myopes and was statistically significant with p p-value of <0.001 . 69% of subjects who were found using mobile phones for more than 4 hours per day had myopia progression by 0.75D, which was statistically significant (p-value <0.001) as compared to those who didn't attend online classes (myopia progression was by -0.25D).

Keywords : myopia, school going children, annual progression, COVID ERA

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