ABSTRACT

Today in the era of information and technology, computer and mobile phones have become pervasive around the globe. Visual terminal devices has improved the efficiency and quality of the job at the same time it has also led to various other problems of eyes like dry eye disease, tired eyes, eye stain, redness, sensitivity to light, irritation, blurring of vision, and other muscular problems. This study was undertaken to assess tear film changes in between Visual Display Terminal (VDT) users and non-Visual Display Terminal (non-VDT) and further extending their correlation to socio-economic status. Subjects were selected randomly from a non-clinical population. They were also classified, further, based on education, occupation and family income as a classification of socio-economic status aged between 18 to 35 years. All participants completed the Ocular Surface Disease Index (OSDI) questionnaire on dry eye symptoms, and clinical tests namely: Blink rate, Meiboscore, Tear Film Break Up time, Tear Meniscus Height, Corneal staining and Schirmer’s test were performed. A total of 288 subjects (179 males and 109 females) out of which VDT were 144 subjects (102 males and 42 females) and non-VDT users were also 144 (77 male and 67 females) were recruited into this study. It was observed that 73.61% and 34.72% of VDT and non-VDT users were having dry eye, respectively. The prevalence of Computer Vision Syndrome (CVS) among the subjects studied was 94 (65.28%) with a CVS score of 7.50±5.86. According to socio-economic scale 33.33% of upper class, 44.70% of upper middle class, 53.33% of lower middle class and 100% of upper lower class of VDT and 37.50% of upper class, 31.25% of upper middle class, 56.67% of lower middle class and 43.10% of upper lower class of VDT and non-VDT users were having dry eye disease (DED), respectively. There was statistically significant difference in Mean OSDI, Blink rate, TBUT and Schirmer test (p <0.05) and no statistically significant difference (p>0.05) were found in mean corneal staining, tear meniscus height and meiboscore in between VDT and non-VDT users. The signs and symptoms were more prevalent among VDT users. Tear Film changes were found in various classes of socio-economic status (SES) with increased probability of DED. Hence, it was concluded that males of early age groups of the population are becoming more prone to DED today. Ocular surface diseases are also becoming prevalent among the middle/lower social classes overall affecting daily life activities due to the use of VDTs.