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Incidence and prevalence of dry eye syndrome in different occupational sectors

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A cross-sectional study was done to determine the prevalence of dry eye and to evaluate the environmental risk factors attributed to dry eye within various occupational sectors. The study included 240 subjects aged between 20-45 years. 40 subjects were collected in 6 different occupational sectors and were compared with control group. McMonnies questionnaire based history taking and Schirmer's test were used to diagnose dry eye. Recruited subject's demographic data such as age, sex, occupational history and working conditions were noted during the study. Social history (smoking, alcoholism) was also included. In a total, of 240 subjects, the number of males were 170 (71%) and 70 were females (29.2%). The male and female ratio was 3:1. Out of a total of 240 subjects, 52(21.7%) subjects were positive for dry eye syndrome and a total of 188 (78.3%) subjects were negative for dry eye syndrome. The highest prevalence of dry eye syndrome was identified in the software sector, out of 40 subjects 14 (26.9%) subjects were diagnosed with the condition. In the construction sector, the prevalence of dry eye syndrome was 12 (23.1%) out of 40 subjects and the agriculture sector had a prevalence of 7 (17.3%). 7 subjects (13.5%) out of 40 subjects in the transport sector and in industrial sector, 6 subjects (11.5%). A control group was recruited from normal environmental condition, wherein the prevalence was found to be (7.7%) out of 40 subjects. We also assessed the degree of dry eye between the right eye and left eye where there was a significant difference in both the eyes. Dry eye is a most common ocular condition which affects the day to day activities. Early detection of such a condition is necessary in the entire working environment. The highest prevalence of dry eye syndrome was found in software sector when compared to other working environment. There was a significant correlation between environmental and occupational factors that cause dry eye. Excessive exposure to sunlight, wind, high temperature, and air pollution, electromagnetic radiation are the factors which affect the tear film and ocular surface leading to dry eye syndrome. The workers involved in the study were likely to be liable for these factors.

Biography

Jayarajini Vasanth is currently working as an Assistant Professor at Sri Ramachandra University, Chennai. She has completed her MPhil at Elite School of Optometry in 2002. She has completed her Optometry course at Bits Pilani and PhD at Sri Ramachandra Medical College and Research Institute, Chennai, India. She has also worked at Sri Ramachandra Medical College and Research and at Sankara Nethralaya, Chennai.

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