Lifestyle effects on ocular health

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To evaluate the effects of lifestyle factors on ocular health. Specifically, evaluation of the tear film, accommodative ability, and macular pigment was measured and correlated with lifestyle factors such as smoking and dietary intake. The tear film was assessed using three methods: tear break–up time (TBUT) using fluorescein, a non-invasive TBUT, and a video capture method. Accommodative ability was checked by performing a ‘push up test’ to measure amplitudes of accommodation (AoA) and also by checking to defocus curves. The macular pigment optical density (MPOD) was measured using the MPOD device. 106 participants were examined (mean age 25.15 ± 7.18 years). Smokers had a lower TBUT compared to non-smokers in all three methods of assessment (p < 0.05). Individuals with a frequent exposure to passive smoking had a lower TBUT compared to those with an infrequent exposure or no exposure to passive smoke (p < 0.05). Ocular Surface Disease Index (OSDI) scores were higher in smokers compared to non-smokers (mean scores for smokers 20.52 ± 15.20 & for non-smokers 9.62 ± 10.72, p < 0.05). A negative correlation (r = -0.734, p = 0.01) was found between age and AoA. No association was shown between smoking status and MPOD scores and between smoking status and age or ethnicity (p >0.05). Similarly, no association was found between diet scores and TBUT or with MPOD scores. This study suggests that smoking has a negative effect on tear quality. The study shows that smokers are more likely to present dry eye-related symptoms.

Biography

Nisar Latif is a PhD student in the Ophthalmic Research Group, in the School of Life and Health Sciences at Aston University. His research field is in community ophthalmic practice and preventative management of eye disease. He did his first degree in Optometry from University of Health Sciences, Pakistan. He then did a Master’s in Public Health from University of Bedfordshire and then a Master’s in Business Administration (HRM) from University of Wales TSD. He has experience of working in a clinical practice as an optometrist. He has presented his research at national and international meetings in the past.

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