

Dry Eye: Prevalence And Attributable Risk Factors Among Towns In Northern West Bank

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Abstract :

Background:

Dry eye disease (DED) is a multifactorial disease of the interpalpebral ocular surface and tears. It is a growing public health problem and one of the most common conditions seen by eye care practitioners.

Objectives:

To study the prevalence of dry eye disease and to identify various risk factors associated with it among people in Northern West Bank, Palestine.

Methods:

A cross sectional study of a 769 volunteers [mean age \pm SD =43.61 \pm 18.57, range 15-90 ,52.7% female] was conducted in towns of Northern West Bank, from September 2015 to January 2016 . Interviewers assessed dry eye symptoms using OSDI questionnaire in addition to other questions .Slit-lamp examination and objective dry eye assessment consisting of tear film breakup time (TBUT), fluorescein corneal staining, and Schirmer test, in addition to meibomian gland evaluation were performed. Dry eye was diagnosed by new criteria developed by the researchers.

Results:

The prevalence of dry eye disease was 54.9%. Of the dry eye cases, approximately 53% reported having one or more dry eye symptoms all or most of the time , 56.4% had sever OSDI score while 10.9% had normal OSDI score (p-value = <0.001), around 96% had TBUT \leq 10s (p-value = <0.001) , 8.8% had Schirmer test \leq 5 (p-value =0.623),89.6% had fluorescein corneal staining \geq grade 1 (p-value = <0.001) and 88.2% had meibomian gland dysfunction (p-value=0.726).Dry eye was found to be more frequent in female [57.6%] than in male [42.4%] ,with significant p-value =0.04 and not associated with age, p-value = 0.959.In a multivariate analysis, dry eye disease was highly significant associated with history of conjunctivitis, p-value <0.001.

Conclusion:

It was found that Dry eye is highly prevalent disease in our country and it is an under-diagnosed ocular disorder. Reduction in the modifiable risk factors of dry eye is essential to reduce its prevalence. Sex and history of conjunctivitis was found to be the most significant risk factor of

the dry eye disease. There was no statistically significant association between dry eye disease and age in our study population.

Keywords: Dry Eye, Tear film Break-Up Time, Schirmer's Test, OSDI, and Conjunctivitis, Palestine.