

Correlation between signs and symptoms of dry eye disease

Students:

Reham Shehada

Hamza Nazzal

Supervisor: Dr. Yousef Shanti

Co-supervisor: Dr. Jamal Qaddumi

Abstract:

Objectives:

To evaluate the correlation between signs and symptoms of dry eye disease (DED) in general population in 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 six item questionnaire. 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. Kendall's Tau correlations was used to study the correlation between symptoms and signs of dry eye.

Results:

No significant correlation was found between symptoms (OSDI, six-item questionnaire) and signs (TBUT, schirmer test, FL/S of the cornea) of DED.

OSDI-TBUT ($r=0.014$, $P\text{-value}=0.067$), OSDI-schirmer ($r=-0.054$, $P\text{-value}=0.103$), OSDI-FL/S of the cornea ($r=0.44$, $P\text{-value}=0.180$), six-item questionnaire-TBUT ($r=-0.038$, $p\text{-value}=0.289$), six-item questionnaire-schirmer ($r=-0.035$, $P\text{-value}=0.326$), six-item questionnaire-FL/S of the cornea ($r=0.051$, $p\text{-value}=0.158$).

Conclusion:

No consistent relationship was found between common signs and symptoms of DED. Further researches to increase understanding of the etiopathogenesis of DED and to find the most reliable and relevant measures of disease are required to improve clinical assessment of DED and the measurement of response to therapeutic intervention.

Keywords:

Correlation, Dry eye disease, Signs, Symptom and Palestine.