

COMPARISON OF TEAR MENISCUS HEIGHT (TMH) AND SCHIRMER TEST VALUE BETWEEN DRY EYE AND NONDRY EYE SUBJECTS BASED ON ASIAN DRY EYE SOCIETY (ADES) 2017 DEFINITION

Puteri Nur Liyana Syairah Zainal Abidin¹, **Mohd Hafidz Bin Ithnin**^{1*}

¹Department Of Optometry and Visual Science, Kulliyyah Of Allied Health Sciences, International Islamic University Malaysia, Jalan Sultan Ahmad Shah Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia.

*Corresponding author's email: mohdhafidz_ithnin@iiu.edu.my

ABSTRACT

Aims: The study aimed to compare non-dry eye and dry eye subjects on tear meniscus height (TMH) and Schirmer test with anaesthesia using the Asian Dry Eye Society (ADES) 2017 definition.

Methodology: This quasi-experimental study involved eighty healthy eyes that were categorised into two groups; normal and dry eye groups. Subjects were required to answer the Ocular Surface Disease Index (OSDI) questionnaire and tear breakup time (TBUT) was measured for each eye to categorise each subject. TMH and Schirmer test with anaesthesia (SA) on each eye were assessed among non-dry eye and dry eye subjects.

Results: Dry eye subjects have a statistically significant low TMH when compared to non-dry eye subjects ($t_{74.582}=5.503$, $p<0.001$). Schirmer test with anaesthesia shows almost identical values in both groups ($t_{74}=-0.294$, $p>0.05$).

Conclusion: TMH can be new criteria in diagnosing dry eye based on ADES definition 2017. Further study can be done with a higher concentration of alcaine 1% or by modifying the age range and severity of dry eye to compare the values of the Schirmer test with dry eye among dry eye and non-dry eye groups based on ADES 2017 definition.

Keywords: dry eyes, tear meniscus height, tear volume, Schirmer test with anaesthesia, ADES 2017