

ABSTRACT

**CORELLATION BETWEEN BLINK FREQUENCY AND TEAR FILM STABILITY DURING VISUAL DISPLAY UNIT USE
(Pre-Eksperimental Study on Medical Faculty Students
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Purpose: investigating the corellation of blink frequency to tear film stabilitation during visual display unit use.

Methods: 50 healthy randomized selective subject completed the study . Blink was recordered in relax primary gaze conditions and while subjects were reading task on a desktop computer at viewing distance of 50 cm use VDU monitor 19,5 inch, 10 minutes in each session. TBUT had been performed using fluorescein 2% before and after VDU use. The study was conducted in standarized condition determined by reseacher. Paired t test (2-tailed) and Pearson Correlation were use for analysis.

Result: Statistically significant differences were revealed in blink rate during relax condition and VDU use ($p=0,000$). Statistically significant differences were revealed in TBUT before and after VDU use ($p=0,000$). Yet, no statistically different between blink frequency and TBUT before VDU, blink frequency during VDU and TBUT after VDU, and blink frequency and TBUT alteration.

Conclusion: Reducing blink frequency and tear film stability were significantly related to VDU use. No correlation between blink frequency and TBUT.

Keywords: Eyeblink; Tear break-up time; Visual display unit