## THE IMMEDIATE EFFECT ON NON-PRESERVATIVE HYALURONIC ACID AND CARBOXYMETHYLCELLULOSE SODIUM (CMC) EYE DROP ON TEAR FILM QUALITY AND PATIENT SENSATION

Nur Iffah Izzaty Zolkifli<sup>1</sup>, Mohd Radzi Hilmi<sup>1\*</sup>

<sup>1</sup>Department Of Optometry and Visual Science, Kuliyyah Of Allied Health Sciences, International Islamic University Malaysia, Jalan Sultan Ahmad Shah Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

\*Corresponding author's email: mohdradzihilmi@iium.edu.my

## **ABSTRACT**

**Aims:** This study aims to evaluate the immediate effects of non-preservative HA and CMC eye drop on tear film quality and patient's subjective feedback.

**Methodology:** In this study, 30 patients were recruited, and each patient were randomly given 2 eye drop. The patients will be evaluated on the conjunctival redness and tear break-up time (TBUT) for each 5, 15, and 60 mins, also for patient's feedback, questionnaires including Ora Calibra Drop Comfort Scale, Overall Discomfort and 4-symptoms questionnaire will be used.

**Results:** The TBUT result shows a significant difference between HA and CMC with mean TBUT of  $5.17\pm1.05$ s for HA and  $5.07\pm1.08$ s for CMC with (All P < 0.001), and no significance difference were found for both conjunctival redness and patient's feedback.

**Conclusion:** HA gives good immediate effect in terms of TBUT compared to CMC, however, other clinical parameters and patient's feedback showed no significant difference and no improvement between HA and CMC.

Keywords: eye drop, non-preservative, HA, CMC, patient's feedback