

NCC 'FUTURE GENERATION 2024' POSTER Abstracts
SCIENTIFIC SESSION IN COOPERATION WITH THE BCLA

NCC 'Future generation 2024'
Organization Section: NCC/ BCLA

POSTER Abstracts

Sunday, March 10 2024

Netherlands, Veldhoven,

NH De Koningshof, Baroniezaal

Effect of TearRestore Thermal Mask for the treatment of Meibomian Gland Blockage: A Pilot Study

Fakhrudin Barodawala, Jenny Chan Yieng Yieng

Purpose: Meibomian gland dysfunction (MGD) is a chronic, diffuse abnormality of the meibomian glands which is primarily treated with warm compresses, lid massage, and scrubs. This study was carried out to investigate the short-term effect of TearRestore Thermal Mask on patients' symptoms, tear stability, and tear volume.

Method: A total of 33 subjects, who had at least grade 1 meibomian gland dysfunction or worse according to the JENVIS Grading Scale, OSDI score of ≥ 13 scores and NIKBUT < 10 seconds were included. The Standard Patient Evaluation of Eye Dryness (SPEED) questionnaire was used to evaluate the symptoms of dry eye. Oculus Keratograph K5M was used to assess the tear stability by measuring the non-invasive keratographic tear break-up time (NIKBUT) and tear volume using the tear meniscus height (TMH) measurements before and after a single use of the TearRestore Thermal Mask.

Results: The mean age of the included subjects was 22.88 ± 0.50 years. The mean SPEED score before and after the use of the TearRestore Thermal Mask significantly increased by 4.06 [t (32) = 13.766, $p < 0.001$]. Likewise, the mean NIKBUT also significantly increased by 3.98 seconds [t (32) = -4.708, $p < 0.001$], and the mean TMH by 0.02mm [t (32) = -3.722, $p < 0.001$]. The results indicated a

47% reduction in the symptoms of dry eyes whereas there was an increase in tear stability and volume by 64% and 9% respectively.

Conclusions: TearRestore Thermal Mask provided relief from the symptoms of dry eyes and enhanced tear stability in individuals with MGD after a single use. This innovative TearRestore Thermal Mask seems to be a promising and effective alternative for treating MGD and can be explored for long-term use.

Research funding received: No financial funding was received.

The TearRestore thermal mask was provided by the manufacturer for this research but did not have involvement or influence on the research work.