ABSTRACT

Purpose. We compared surface wetting of two daily disposable soft contact lenses, the CooperVision Proclear 1 Day (PC; Omafilcon A) and the Acuvue TruEye (TE; Narafilcon A) using aberrometry and a subjective questionnaire.

Methods. We randomly fitted 19 subjects with a PC a TE lens on OD eye and the other on OS. After 6 hours we measured higher-order (HO) aberrations on OD every second for 60 seconds, with a timed blink every 10 seconds. A week later we swapped lenses and repeated the procedure. We analyzed mean HO RMS (orders 3-6; 4.0-mm pupil), fluctuation (FI) and stability indices (SI) and surveyed subjective comfort and vision.

Results. We found no statistically significant difference between the PC and TE lenses for HO RMS, FI and SI. Neither lens was significantly different from the naked eye. Subjective comfort, dryness, vision, stability of vision and handling also showed no significant difference between lenses. Subjects reported a slight overall preference for the PC (48%) versus the TE (40%) lens.

Conclusion. We found no significant difference in wetting for the PC and TE lenses. Both were more resistant to drying that the 1-Day Acuvue Moist lens, which we tested by similar methods last year.

Key Words: dry eye, contact lenses, wettability, higher-order aberrations