EFFECTS OF EXTENDED CONTINUOUS SILICONE HYDROGEL CONTACT LENS WEAR ON CENTRAL CORNEAL THICKNESS AND OCULAR SURFACE

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Purpose: To investigate the effects of extended continuous silicone hydrogel contact lens wear on central corneal thickness and ocular surface up to one month. Method: 60 eyes of the 30 patients who were seen at İzmir Bozyaka Research and Training Hospital Eye Diseases Clinic for contact lens wear were evaluated in this study. Their basal central corneal thickness (CCT), best corrected visual acuity (BCVA), limbal vascularization (LV), tear break-up time (TBUT) were measured. Ultrasound pachymetry (PacScan 300 P, Sonomed, USA) used for measurements. Patients were informed carefully. FDA approved for extended continuous wear silicone hydrogel contact lenses at a power range spherical (-8.50/+6.00) (Balafilcon A, Purevision HD, Bausch & Lomb, USA) were prescribed. On their 1st, 3rd, 7th and 30th day additionally to the starting parameters the movement of the contact lens on cornea (LM) was measured. Results: Mean CCT was 524.55 micron (± 37.17) measured. CT level changes between the measurement time points were not found significant statistically up to 30 day extended continuous wearing period. No infections had been occurred. There was no drop out in the study. By the time of wear a slight increase for the CCT was observed but that was not statistically significant (p = 0.49). No statistically significant decrease for BCVA, LM and TBUT measurements was observed. No statistically significant increase for LV was observed. One way ANOVA with repeated measurements, SPSS (Ver.20), IBM was used for the statistical analyze. Conclusion: On a compliant group, after well information, under consistent practice continuity extended continuous wear of FDA approved SHL was found safe for the ocular health.