

榮譽報報

 Subject 優秀論文分享 視光系 / 陳佳琪 老師

題目:Effect of different tinted soft contact lenses on the tear quality and ocular surface properties

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摘要:

Different designs for contact lenses can result in insufficient oxygen permeability of the lenses. Moreover, the contact lens wearing schedule, replacement, lens care systems, and purchase methods are all important considerations for contact lens wearers. To evaluate the influence of tinted contact lenses with the pigment layer in different locations on the tear quality and ocular surface properties, as well as the subjective experience of the wearer. In this randomized double-blind study, 30 healthy subjects (60 eyes) were randomly assigned to two groups. The pigment layer of lenses in group I was embedded within the matrix, close to the front surface, while that in group II was located on the front surface of the lens. Subjects wore the contact lenses for 7 days, 8 h a day. In both groups, the frequency of blinking after lens wear increased significantly relative to that before lens wear. The tear-breakup time was significantly shorter in group II than in group I. Temporal bulbar conjunctiva, nasal bulbar conjunctiva, temporal limbal, nasal limbal, and eyelid redness levels in both groups, and corneal staining levels in group II, were significantly increased after 7-day lens wear. Nasal bulbar conjunctiva, temporal limbal, and nasal limbal redness; eyelid smoothness; and corneal staining levels were significantly higher in group II. There was no significant between-group difference in the subjective experience. Ocular surface properties deteriorated while the frequency of blinking increased after wear of both types of tinted contact lenses for 7 days. Both designs resulted in insufficient oxygen permeability of the contact lenses.

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