Atypical Manifestation of Upper Lid Margin Staining in Silicone Hydrogel Lens Wearers With Symptoms of Dry Eye

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INTRODUCTION

♦ The upper eye lid is in close apposition to the ocular surface and it “brushes” over the conjunctival surface during the normal process of blinking.
♦ This brushing of the cornea and conjunctival surface with the lid results in a “windscreen wiper” type movement, with a resultant upper lid margin staining (ULMS).1
♦ Recently, some studies have related subjective discomfort to the presence of ULMS and this may be a useful diagnostic sign in contact lens wearers who exhibit symptoms of dry eye disease. 2
♦ The purpose of this study was to report some atypical manifestations of ULMS that occur in silicone hydrogel (SH) contact lens wearers who complain of ocular surface dryness.

METHODS

Adapted SH lens wearers wearing a variety of SH materials were evaluated for ULMS using fluorescein (Fl) and lissamine green (LG) stains (FL- Ful-Glo, Akorn Inc. 0.6 mg strips; LG - Rose Stone Enterprises, CA.1.5 mg strips).

Sequentially in both eyes, a drop of sodium fluorescein was instilled into the inferior palpebral conjunctiva by wetting a Fl strip with sterile saline. After 3 mins a second drop was instilled. A minute later, the upper eye lid was everted, and the wiper area of the upper lid examined with the slit lamp on 8X and 12X magnification, using a cobalt blue filter.

The ULMS was examined from the nasal location of the punctum to the temporal canthus of the upper lid.

Subjects completed 5 clinical visits over a 4 week period.

Digital images were obtained with both stains at all visits.

RESULTS

Atypical ULMS was present in 4 out of 38 SH lens wearers and the patterns are seen below

Feathery extensions were seen, which varied between subjects

Feathery extensions noted with Fl. Stain

Feathery extensions noted with LG Stain

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REFERENCES


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