Contact Lens Intolerance Secondary to Ocular Rosacea

SOUTHERN COLLEGE OF OPTOMETRY

Laurel E. Kelley, *OD, FAAO*

INTRODUCTION

Patients complaining of contact lens (CL) intolerance that does not resolve with lens or solution change, various conjunctivitis treatments, or typical ocular surface disease management prompts further investigation. In this case, the patient had been seen several times for discomfort with CL wear that was uncontrolled due to a missed diagnosis of ocular rosacea. A thorough case history and ocular surface disease work up revealed the true issue. This patient responded ideally to oral doxycycline and was been cleared to return to CL wear. Additionally, conversations were facilitated with the patient and nurse practitioner regarding possible drug indications with doxycycline and oral contraceptives.

CASE PRESENTATION

A 26 yo WF was referred to the dry eye clinic after continued complaints of CL discomfort and photophobia. As seen in ***Table 1***, she had been diagnosed with recalcitrant conjunctivitis and several management options had been tried without long-term improvement.

At initial dry eye work up her history was significant for:

- (+) oral spironolactone
- (+) acne rosacea dx 2019, controlled w/ face creams
- (+) hx of recurrent chalazia/hordeola
- (+) family hx of rosacea

Slit lamp examination revealed meibomian gland dropout and poor expression and quality of meibum, lid telangiectasia, scalloped lid margins, and injected palpebral conjunctiva consistent with previous diagnoses of conjunctivitis. ***Figure 1*** displays her meibography and ***Figure 2*** shows an image of lid telangiectasia similar to this patient's presentation.

TABLE 1. *Dates with associated patient complaint, pertinent findings, diagnosis and management prior to referral to dry eye clinic.*

DATE	COMPLAINT	PERTINENT FINDINGS	DIAGNOSIS	MANAGEMENT
10/12/20	swelling of LL, (+) hx of styes, using baby shampoo and warm compresses	OU 2+ follicles UL & LL	Follicular conjunctivitis	d/c CL wear x 1 wk, start cold compresses & ATs
10/20/20	No relief with d/c CL wear x 2 weeks & Systane Complete ATs QID	OU 2+ papillae & mod injection LL, tr papillae and tr injection UL OD mild SPK inf	Allergic conjunctivitis	As above plus lotemax 0.5% ophth. susp. TID OU
11/3/20	improvement in redness and swelling, (-) itching, discharge "feels like issue has resolved"	OU 1+ papillae and mild injection LL, tr papillae and tr injection UL	Allergic conjunctivitis w/ improvement	Initiate taper lotemax 0.5% BID OU x 2 days, QD OU x2 days. Resume CL wear in 1 wk
11/17/20	symptoms returned 2 days after d/c drops (+) itching, irritation, new discharge	OU 2+ follicles & mod injection UL>LL, mild SPK inf	Chronic allergic conjunctivitis vs suspected inclusion conjunctivitis (suspected chlamydia)	d/c lotemax, start Pataday QD-BID, order STD testing w/ negative results. Refer to dry eye clinic.

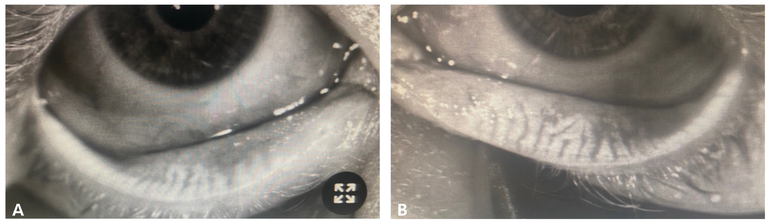

FIGURE 1. *Meibography of lower lids using TearScience® LipiView® a) right eye b) left eye.*

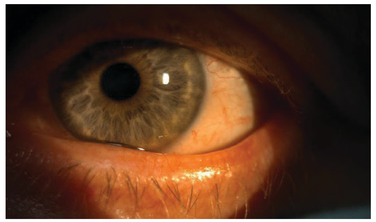

FIGURE 2. *Image depicting lid telangiectasia similar to this patient's presentation.*

DISCUSSION

In addition to palliative topical therapy, warm compresses, and lid scrubs, this patient was started on the oral antibiotic doxycycline at sub-therapeutic dose of 50mg BID.

- 1 mo f/u: she reported significant improvement in eyelid redness and ocular comfort
  - *SLE revealed decreased lid inflammation and mild improvement in gland expression*
  - *directed to continue 50mg doxycycline BID for 2 more months*
- 3 mo f/u: returned late and had run out of doxycycline
  - *reported having a bump on her eyelid (chalazion) once she stopped taking the doxycycline*
  - *stated she had noticed continued improvement in signs and symptoms until running out*
  - *doxycycline was re-prescribed for another 3 months and she was cleared to return to CL wear*
- CL fitting appt: had self-discontinued doxycycline due to a friend's concern about drug interactions with antibiotics and oral contraceptives
  - *A conversation was facilitated with her women's health NP and she was reassured that no adverse effects have been reported with this drug combination, especially with such a low dose*
  - *Patient was advised to restart the medication with the understanding that compliance is crucial to sustained long-term control*

CONCLUSION

Rosacea is a common facial skin disorder that causes redness and inflammation. This condition affects an estimated 16 million people worldwide with a strong female predominance, especially those with fair skin. A genetic component may increase one's predisposition for the condition. The prevalence of ocular involvement ranges from 6-18%, with some reports stating up to 50%, and typically presents as red, irritated, watery, or itchy eyes. Other signs include recurrent styes or chalazia and small dilated blood vessels on the eye lid margin. Repeatable studies have confirmed low-dose oral doxycycline used for its anti-inflammatory properties is successful at managing ocular rosacea. Ocular rosacea should be considered as a differential diagnosis in all ocular surface disease workups to promote prompt and appropriate treatment. A thorough case history is paramount when managing ocular surface disease, as in this case where the patient's medications gave insight into the condition contributing to her discomfort.

ACKNOWLEDGEMENTS

Special thanks to Dr. Alia Cappellani for her permission to use the image shown in Figure 2.

REFERENCES AVAILABLE UPON REQUEST.

CONTACT INFORMATION

Laurel Kelley, OD, FAAO
laurelkelley@sco.edu