Background

Conjunctival injection associated with scleral lens (SL) wear is commonly associated with a poor fit, solution toxicity and/or hypersensitivity, systemic inflammation, or infection – most of which can be resolved by addressing the underlying etiology. A unique challenge is presented when a patient reports persistent SL-related injection without one of the aforementioned causes. In such cases, practitioners must be creative in their trial-and-error management methods.

Case Overview

34-year-old Hispanic with keratoconus presents for a SL fitting

- Habitual lens fit OU: 300 um apical clearance, limited limbal clearance 360, adequate scleral alignment 360
- Persistent redness shortly after insertion OU (Fig. 3)
- Moderate suction on removal OU
- No pain OU

Ocular History: KCN OD>OS s/p CXL OU, steroid responder

Medical History: HTN (Lisinopril), bloodwork WNL

Discussion

Overview of approach to managing intolerable redness/suction:

- Lens fitting/alignment – consider quadrant specific landing zone
- Infection – antibiotics and lid hygiene
- Inflammation – soft steroid and bloodwork
- Solutions – preservative-free, essential electrolytes, hydrogen-peroxide cleaners
- Advanced lens customizations – channels and fenestrations

-Patient’s history as a steroid responder – fluorometholone acetate ophthalmic suspension 0.1%, which has greater penetrance and fewer side effects as a soft steroid, was used for this case with long taper

-Mast cell stabilizers inhibit the release of mediators such as histamine and prevent both immediate and late reactions

This case was met with many challenges involved in the lengthy fitting process, and success would not have been possible without the advancements of contemporary scleral lenses. Unique fitting strategies are sometimes required to address concerns despite the appearance of a suitable lens fit with standard parameters.

References