Scleral Lens Associated Red Eye

Marcus R. Noyes OD, FAAO, FSLS
University of Iowa, Department of Ophthalmology and Visual Sciences
200 Hawkins Dr
Iowa City, IA 52242
marcus-noyes@uiowa.edu

Christine W. Sindt OD, FAAO, FSLS
University of Iowa, Department of Ophthalmology and Visual Sciences
200 Hawkins Dr
Iowa City, IA 52242
marcus-noyes@uiowa.edu

Outline:

1. Inflammatory
    a. Intense ocular surface disease (GVHD, SJS, etc)
        i. treat underlying condition not “optimize fit”
            1. Is issue from lens or from underlying inflammation
        ii. Pictures and cases
2. Mechanical
    a. Eyelids
        i. How eyelids affect scleral lens fits
        ii. How eyelids affect patients’ comfort
            1. Brow ptosis
            2. Ptosis
        iii. tarsorrhaphy
    b. FB under lens
        i. Hair
        ii. Solution clumps
    c. Lumps/bumps
        i. Pingueculae
        ii. Salzmanns nodules
        iii. blebs/tubes
    d. Poor fit
3. Hypoxia
    a. Lens materials
        i. Dk vs thickness
    b. Corneal transplants
        i. endothelium
    c. Central clearance/vault

        i. Debate between low vs high clearance
        ii. Endothelial blebs
4. Allergic
    a. Solution/coating allergy
        i. Hydrapeg
        ii. Plasma coating
        iii. Saline buffer
        iv. nutrifill vs scleral fill vs etc
    b. Eosinophilic conjunctivitis
        i. Confocal microscopy
    c. Seasonal allergies/GPC
        i. And its interplay with keratoconus
5. Infectious
    a. Microbial keratitis
        i. Rates unclear
    b. Viral (HSV/VZV)
6. Chemical
    a. Improper cleaning
        i. New CLMA guidelines
        ii. Using wells designed for the specific solution
    b. Peroxide solutions
    c. Make-up
        i. Sticking to outside of lens
        ii. Sticking to underside of lens
7. Dry Eye
    a. General dryness
        i. Mgd vs sjogrens vs rosacea
    b. Fogging
        i. Relationship with fit?
        ii. How to minimize
            1. Cleaning solutions
            2. Filling solutions
            3. Lens materials
            4. Coatings