Scleral Lens Troubleshooting

Speakers: John Gelles, OD, Caitlin Morrison, OD
CE topic: Scleral Lens Troubleshooting

Description: This course will teach about considerations for common disease states, how to modify lenses to alleviate issues, how to best communicate with your lab consultant, how to establish baselines, review lens options and optical options. Whether you are new to scleral lenses or just looking to sharpen your troubleshooting skills, this one's for you!

Objectives:

1.) Identify fitting complexities of certain common disease states
2.) Understand how to alleviate common scleral lens fitting complications
3.) Learn about what changes to make to lens designs
4.) Learn how to review lens options and optical options
5.) Develop skills in communicating with different labs and assuring patient lens success

Outline

1.) Introduction
    a. Dr. Morrison
        i. Background
        ii. Practice
        iii. Disclosures
    b. Dr. Gelles
        i. Background
        ii. Practice
        iii. Disclosures
2.) Pre-Fitting Assessment
    a. Patient history and lifestyle considerations
        i. Monovision, multifocal, distance only, distance with glasses over
        ii. How far do they hold reading material
        iii. Dry eye concerns (to HydraPEG or not)
        iv. Grafts
            1. GP versus scleral lens
            2. Materials and center thickness considerations
        v. Dexterity Concerns
            1. Discussion with patient
            2. Insertion devices
        vi. Aperture size
            1. Lens diameter
3.) Taking Measurements
    a. Corneal Topography
        i. Helping us determine which lens to start with
            1. HVID (lens diameter)

        2. K Values (lens depth)
    b. Corneo-Scleral Profile Mapping
        i. Peripheral curvature
        ii. Conventional vs scan-designed vs impression-designed
        iii. Glaucoma filtering tubes
    c. Over-refraction
        i. Spherical
        ii. Residual astigmatism
        iii. Lens flexure
            1. Increasing flex control
            2. Increasing center thickness
    d. Discussion with patient
        i. Levels of complexity of their eye
        ii. Most beneficial lens
        iii. Insertion and removal
        iv. Added levels: HOA, etc.
4.) Choosing a design
    a. Fix zones vs variable zones
    b. Sag vs curvature
        i. Does the design make sense to you?
5.) Common Fitting Issues
    a. Initial Lens Comfort
        i. Patient expectations and adaptation time
        ii. Fluorescein over lens to assess edge lift
    b. Vision Concerns
        i. Over-refraction (uncaptured residual astigmatism)
        ii. Higher order aberration
            1. Predicting levels of HOA: posterior corneal shape
        iii. Discussion with patient: expectations
    c. Fogging and Deposits
        i. Post-tear lens fogging
        ii. Front surface deposition
    d. Tight or Loose Edges
        i. Tight edges
            1. Common “phrases” heard
            2. Questions to ask
        ii. Loose edges
            1. Common “phrases” heard
            2. Questions to ask
        iii. Impingement
        iv. Fluorescein over lens
            1. Photos of fluorescein seepage
            2. Video: subtle edge lift
        v. OCT Images
            1. Tight edges
                a. How much we would adjust by

2. Loose edges
    a. How much we would adjust by
3. “Just Right” edges

6.) Documenting lens designs
    a. Dr. Morrison: drawings, photos, and EMR documentation
    b. Dr. Gellse: drawings, photos, and EMR documentation
7.) Communicating with manufacturing
    a. Email versus calling
    b. Where to ship lenses
    c. When to schedule patient for follow up
    d. Double checking lens parameters
8.) Conclusion