

A Fashionable Eye A Painted Scleral for a Blind Eye

David Dinh, OD
Cornea and Contact Lens Resident

Background

A patient with a blind disfigured left eye was referred for a prosthetic scleral lens fit. Several visits were needed before an adequate scleral lens fit was obtained. Once the fit was finalized, multiple photos and ocular parameters were needed before sending the lens for painting. Clinicians and patients should understand that multiple office visits, accurate photos / ocular measurements, and higher costs are necessary. Clinicians should also understand the risks and benefits of prosthetic scleral lenses.

Case Presentation

- 78-year-old Caucasian female with history of a severe corneal ulcer OS that contraindicates a soft prosthetic lens.
- The OS is disfigured by corneal scarring and visible hyphema.
- The referring corneal specialist wants to avoid using a soft contact lens to decrease the risk of losing the eye.

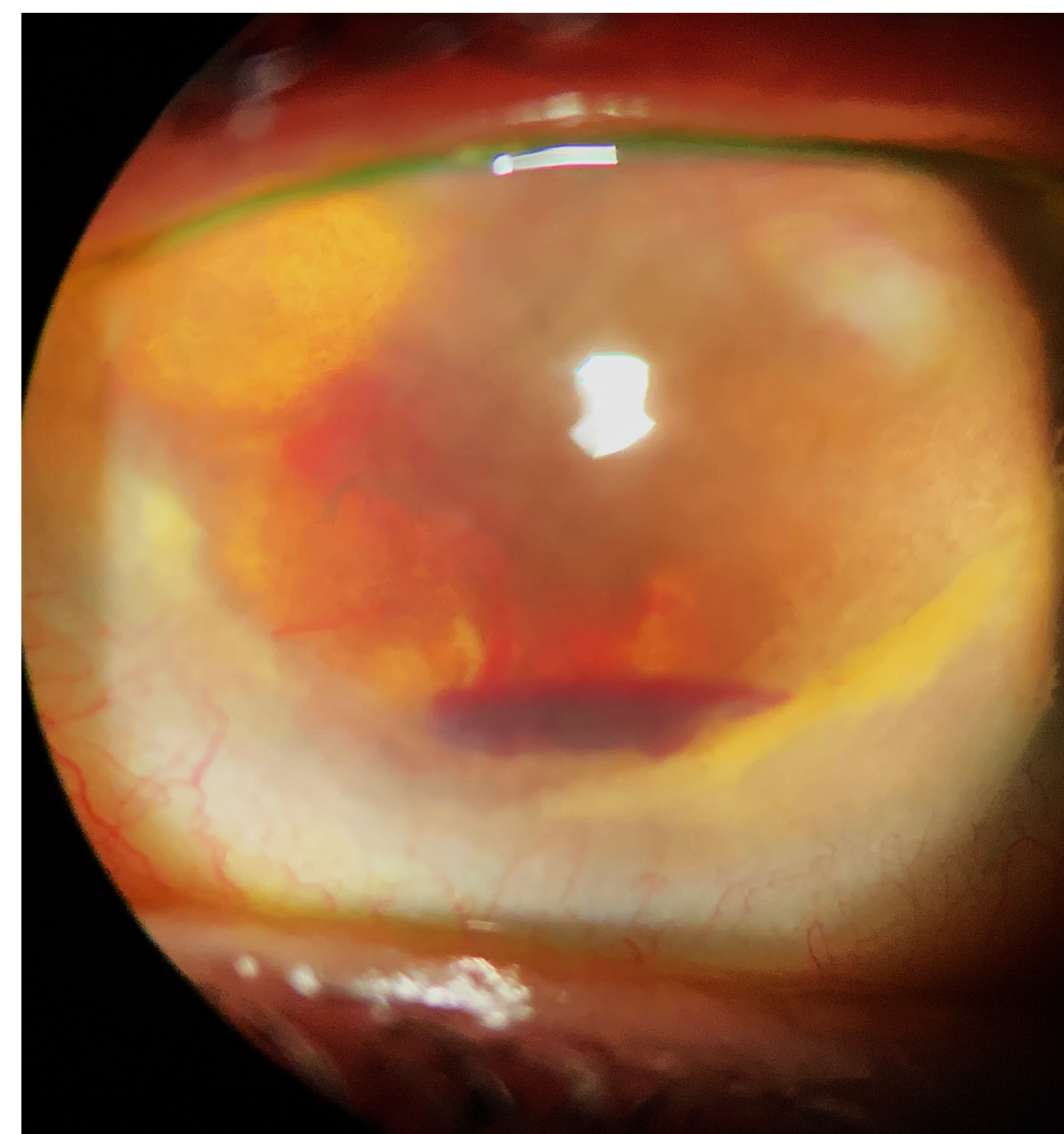
Ocular History:

- Blind Eye OS: no light perception since birth
- Hyphema OS
- Exotropia OS
- Cataract Surgery OS (Age 13 congenital cataract)
- Strabismus Surgery OS (Age 19)
- Normal pseudophakic OD

Figure 1. Initial appearance



Figure 2. Magnified left eye



Contact Lens Evaluation

The OS was fit with a Europa design scleral lens (Visionary Optics, Ft. Royal VA). Multiple visits were needed over a 2-month period to ensure satisfactory central vault (after settling), limbal clearance, and peripheral alignment. At each office visit, application and removal training was reviewed and practiced. The ocularist painting the lens required the following:

- External photo of the good eye with camera flash (non-slit lamp)
- HVID
- Pupil size in light
- Scleral lens parameter details

Discussion

Patient education is paramount before starting a prosthetic lens evaluation and fit. The primary factors to discuss are the increased number of office visits and higher cost. The cost includes the initial evaluation, initial scleral lens fitting, the cost of the lenses, and the cost of the custom painting process. The patient in this report understood these factors and was motivated to proceed with the process to improve the appearance of her left eye.

Conclusion

Prosthetic contact lenses play an important role in improving self-esteem, confidence, and quality of life in patients with disfigured eyes. Although prosthetic soft lenses are more common, certain situations require scleral lenses when soft lenses are contraindicated. This patient suffered severe keratitis with hyphema, and a rigid scleral lens was needed to maintain ocular integrity and decrease the risk of enucleation.