



Soft to Scleral - Successful Switch in Case of HSV Corneal Scar with Neovascularization



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BACKGROUND

A 57 year old female habitual soft contact lens wearer with a 20 year history of a corneal scar was able to achieve **improved visual acuity when fit in a scleral contact lens**. Additionally, the patient's HSV-related corneal neovascularization was treated with multiple argon laser treatments.

CASE DESCRIPTION

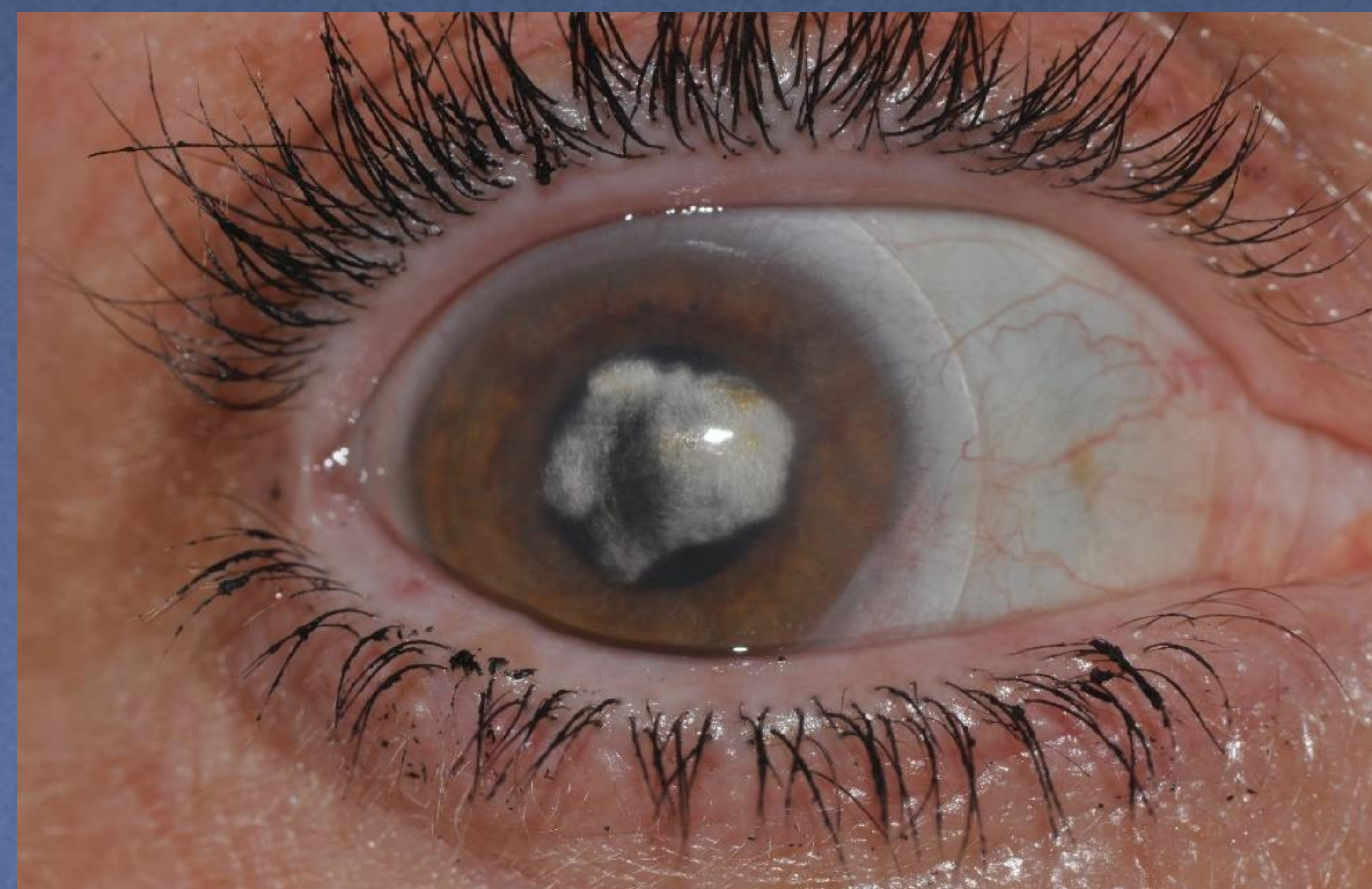
A 57 year old female presented for evaluation of a corneal scar she developed 20 years ago in her right eye from a herpes simplex infection. The scar measures 5.7mm wide and 5.2mm tall. Neovascularization extends into the scar superior nasal. The patient is also pre-diabetic, uses timolol 0.5% bid OU for low tension glaucoma, and has been taking Valtrex 1,000mg bid.

The right eye is able to achieve 20/125 with spectacles, and can improve to 20/80 with her habitual soft contacts. Anterior segment photographs and topography were obtained. The first goal of treatment was to decrease the corneal neovascularization, followed by a scleral lens fitting for vision improvement.

The patient's **corneal neovascularization** was treated at 4 visits in a 6 month time period with **argon laser** (1st 7/22/2020, 2nd 9/15/2020, 3rd 10/22/2020, 4th 1/5/2021). The patient is being monitored for any additional neovascularization, which may be treated with additional argon laser and/or corneal cautery.

She was subsequently fit in a scleral contact lens with an acuity improvement to 20/50+ in the right eye and 20/20 in the left eye. The scleral lens was designed with Optimum Infinite material with Tangible Hydrapeg. OD BC 8.65/Dia 15.8, OS BC 7.85/Dia 15.8.

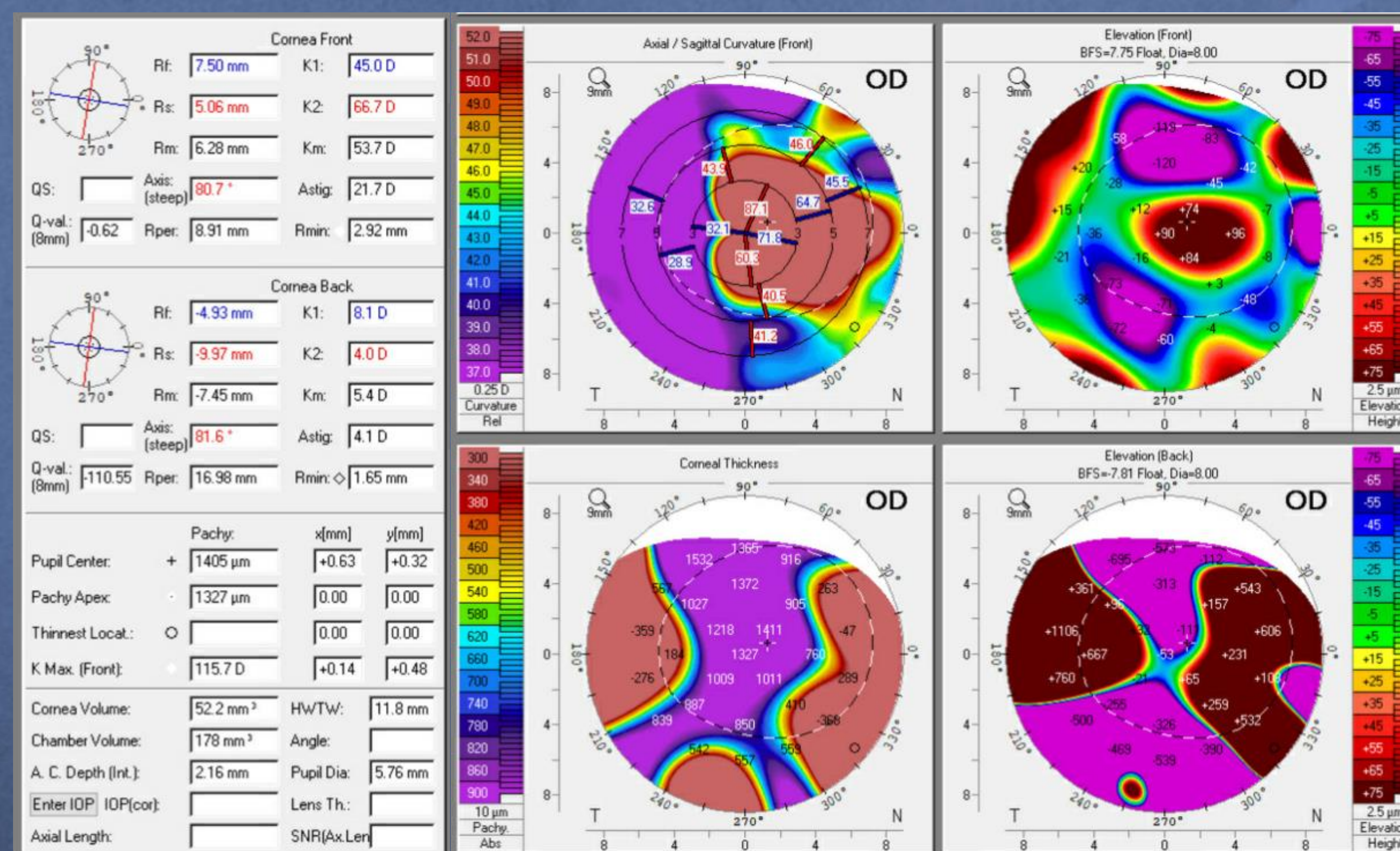
While the patient experienced improved vision with scleral lens wear, routine monitoring of ocular health remains important due to reactivation of HSK in these patients



10/29/2020
Finalized Scleral Lens Fit



1/5/2021
HSV recurrence – increase Valtrex to 1,000mg TID, begin prednisolone QID, and begin timolol QAM OD for elevated IOP (30mmHg).



Oculus Pentacam showing irregular corneal surface with stromal scarring, steepening centrally.

K: 45.0/66.7 @ 80.7, Kmax: 115.7D

Thinnest Pachy: unavailable, Pachy @ apex: 1327

HVID: 11.8mm

CONCLUSIONS

Herpes simplex can produce devastating vision loss and long-lasting vision impairment. In some cases of corneal scars, soft contact lenses may be sufficient to improve a patient's acuity, however other cases may require the use of scleral contact lenses for optimal vision improvement. Additional management for patients with HSV-related corneal scars may include suppressing the neovascular response through the use of systemic antivirals, topical corticosteroids and corneal argon laser procedures. This patient was successfully managed with scleral lenses and argon laser in her affected eye.

DISCLOSURE

No conflicts of interest

No internal/external funding