

Successful Scleral Contact Lens Wear in Patient with Topical Steroid Withdrawal/Red Burning Skin Syndrome

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BACKGROUND

Topical Steroid Withdrawal (TSW), or Red Burning Skin Syndrome, is a rare condition seen in some patients who have discontinued long-term use of topical corticosteroids. It is characterized by erythema of the skin that can become thickened with papules, pustules and erosions. This rebound eruption of the skin can extend to areas that have not had previous contact with topical corticosteroids. TSW has not been well-studied and although there is no reported correlation between TSW and ocular manifestations, it can result in rosacea of the face.

CASE DESCRIPTION

A 29-year-old Caucasian female was referred to the Illinois Eye Institute for specialty contact lens fitting. She had a positive systemic history for eczema treated with topical hydrocortisone cream since she was 10 years old. She developed TSW when topical treatment was discontinued at 17 years old (see Image 1.) At the time of presentation to our clinic, her TSW was controlled. Her ocular history was significant for corneal scars OD>OS that developed during her TSW episodes, and dry eye disease, which she was managing with GenTeal gel qhs OU.

Entering BCVA with Manifest Rx

OD: -4.50 sph VA 20/80
OS: -5.00 sph VA 20/25

Pertinent Abnormal Slit Lamp Findings

	OD	OS
Adnexa	Erythema and flaking of skin	Erythema and flaking of skin
Lids/Lashes	Scurf, MGD with telangiectasia	Scurf, MGD with telangiectasia
Cornea	Superior stromal scar with neovascularization*	Faint inferior stromal scar with ghost vessels

*See Image 2

IMAGE 1

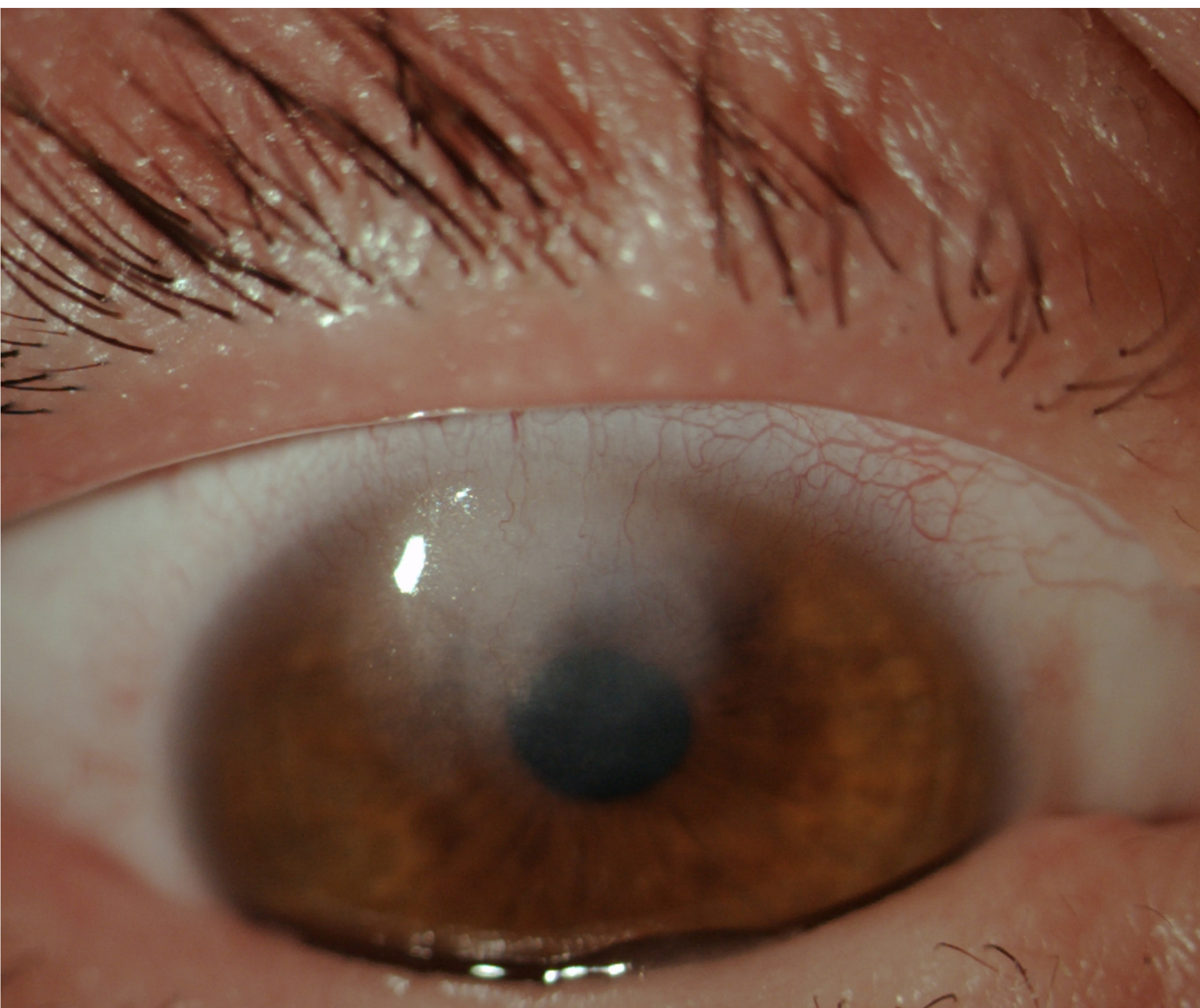
Photo of patient displaying active topical steroid withdrawal.



Photo courtesy of patient

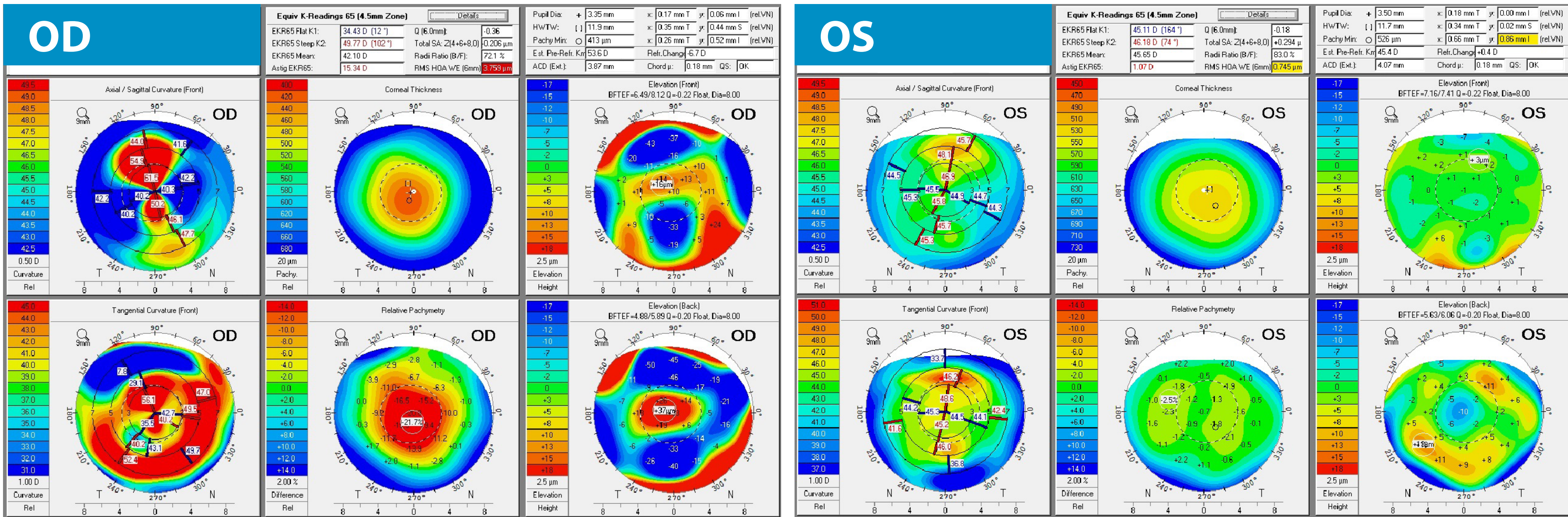
IMAGE 2

External slit lamp photo showing corneal scar and neovascularization of the right eye.



Topography

Pentacam testing revealed irregular astigmatism OD>OS, contributing to decreased VA.



RESULTS

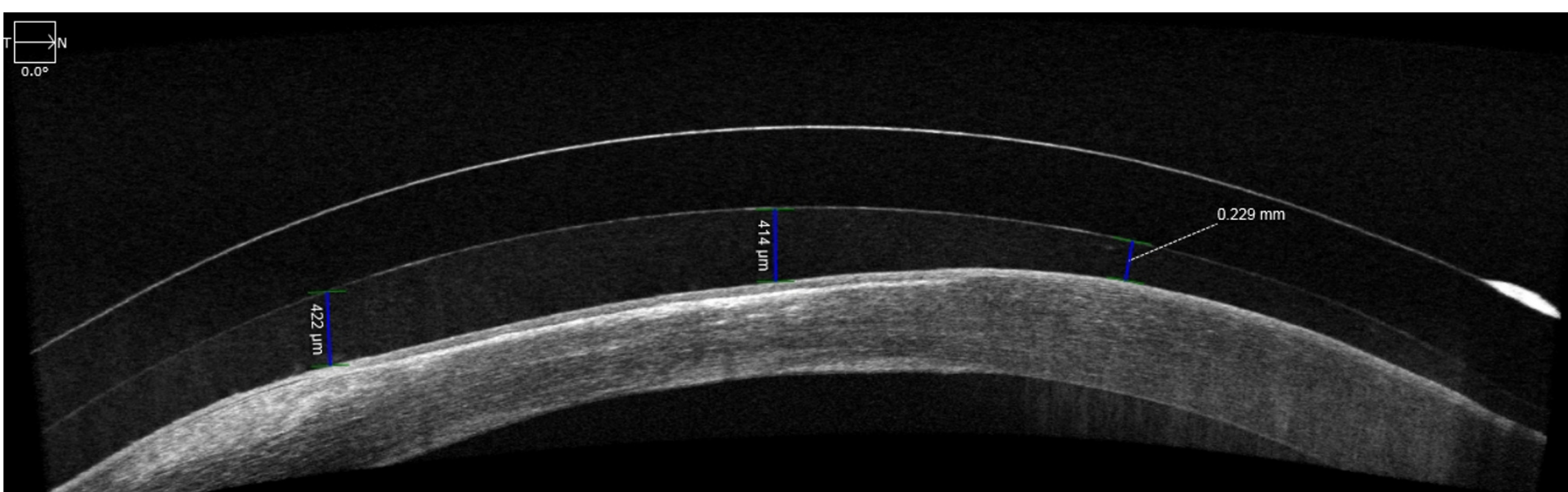
The patient was fit into a Valley Contax Custom Stable scleral contact lens OD (see Image 3) and a daily disposable soft contact lens OS. Her VA improved to 20/25 OD and 20/20 OS at the dispense appointment and remained stable at the one month follow up. The patient was able to maximize daily contact lens wear to ten hours of continuous wear with the addition of preservative-free artificial tears. The scleral lens was ordered with Tangible Hydra-PEG technology due to her dry eye disease and inflammatory condition.

Contact Lens Rx

	OD	OS
Lens	Valley Contax Custom Stable Prime	Acuvue 1-Day Moist
Power	-0.37 sph	-4.75 sph
Base Curve	8.04mm	8.5mm
Diameter	15.8mm	14.2mm
LCZ	-1 steep	
SLZ	-1 steep	
Material	Optimum Extreme with Hydra-PEG	
VA	20/25	20/20

IMAGE 3

AS-OCT of the right eye after wearing scleral lens for 7 hours shows acceptable fit over corneal scar.



CONCLUSION

Although there is no definitive correlation between the patient's ocular findings and her systemic condition of TSW, her presentation showed similarities to patients with other inflammatory conditions such as atopic dermatitis and ocular rosacea, which are associated with keratoconjunctivitis and corneal scarring. Even in cases where etiology is unknown, eyecare providers can use scleral contact lenses as treatment options for patients with dry eye, corneal ectasia and irregular astigmatism to improve comfort and best corrected visual acuities. In this case, the patient was successfully managed with a scleral contact lens to improve her ocular surface disease and ability to continue activities of daily living.

REFERENCES

- Fukaya M, Sato K, Sato M, et al. Topical steroid addiction in atopic dermatitis. *Drug, Healthcare and Patient Safety*. 2014;6:131-138.
- Hajar T, Leshem YA, Hanifin JM, et al. A systematic review of topical corticosteroid withdrawal ("steroid addiction") in patients with atopic dermatitis and other dermatoses. *Journal of the American Academy of Dermatology*. 2015;72(3):1-9.

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