

Case # 1: Post-LASIK ectasia

Patient: 54 year old female

Diagnosis: Post-LASIK ectasia

Introduction

Post-LASIK ectasia is a rare but serious complication after LASIK that can lead to increasing myopia, loss of uncorrected visual acuity, and changes to the patient's corneal topography. While rare, it can nonetheless be quite devastating to those in whom it manifests.

While there are many treatment strategies available to treat progressive kerectasia, including corneal, hybrid, soft and scleral contact lenses, the following case illustrates the utility of the ROSE K2 XL semi-scleral lens in treating these compromised corneas.

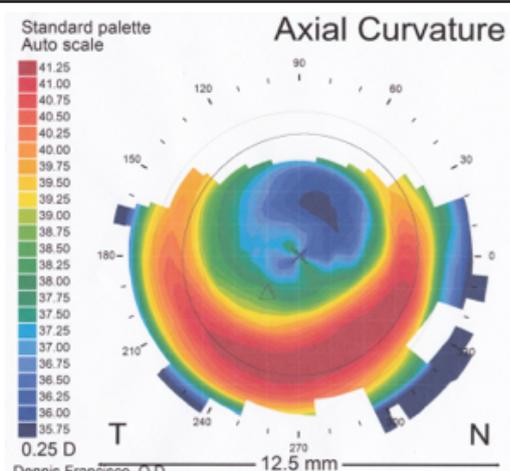
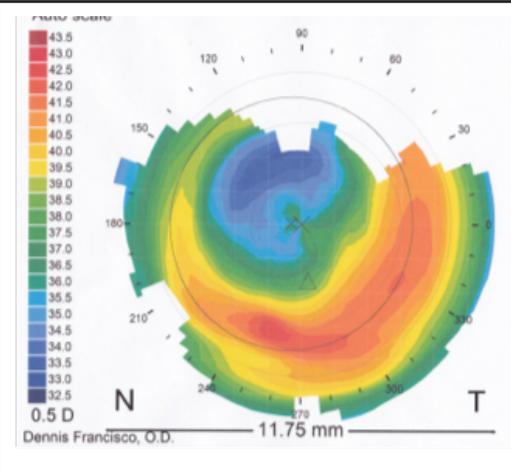
Case Report

JH is a highly myopic (-13.00 D) 54 year old female, a teacher who had LASIK surgery in 1999. Progressive kerectasia followed with increasing myopia. Attempts to fit JH with contact lenses, including scleral lenses, failed due to discomfort, poor vision, and difficulty removing lenses.

A retinal specialist diagnosed JH with trace posterior subcapsular cataract and mild epiretinal membrane in her right eye. A low vision specialist prescribed a 4X spectacle-mounted telescope for JH's right eye improving acuity to 20/40.

JH had to cease driving and teaching; she was restricted to attending activities that were within walking distance during the day and was unable to independently participate in and night activities.

Late in 2013, JH was examined and found to have small, fairly central ablation zones, no corneal scarring, trace PSC cataract OD and trace epiretinal membrane OD. JH had bilateral posterior vitreous separations, central vitreous haze OD, tilted optic discs and pavingstone degeneration OU.

EYE	OD	OS
Topography		
Refraction	-4.751.50x050 20/70-	-5.00-0.50x070 20/80-
Ks	37.25x025/37.75x114 Mires 1+ distortion	36.00x090/35.37x085 Mires 1+ distortion
Pinhole Acuity	20/70+	20/50+
VID	12.4mm	12.4mm

Contact Lens Fitting

JH was fitted with SynergEyes®, a hybrid lens which improved acuity to 20/40+ and 20/50+. Comfortable wear with the right eye was not achieved due to bearing at the ablation zone margin. JH was happy to wear just the left lens for its vision improvement.

ClearKone® hybrids were trial fit with the aim of vaulting over the ablation zones. Acuity was as expected, 20/50+ and 20/40, but now the left lens couldn't be made comfortable.

A third fitting was attempted with Rose K2 XL semi-scleral lenses in Menicon Z (Dk 163) material:

OD: 8.20 BC -11.00 14.6mm Diam. Standard lift

OS: 8.00 BC -13.75 14.6mm Diam. +1.5 lift

Visual acuity was excellent at 20/30- OU. The right lens showed trace bearing on the ablation zone margin with slightly excessive edge lift, good centration, and movement. The left lens had apical pooling, excessive edge lift and movement. Lenses were reordered as:

OD: 8.20 BC -10.50 14.6 mm Diam. -1.00 lift

OS: 8.20 BC -13.50 14.6 mm Diam. -1.00 lift

Visual acuity was 20/30- OU and wearing time was 8-9 hours with slight redness nasally OS, due to lens/pinguecula impingement.

The OS was remade with a 1mm notch at the 9 o'clock position and prism ballast to stabilize the lens position. The left lens was double-dotted at the 12 o'clock position to aid proper rotation on insertion. Comfort was improved and wearing time was increased to 12 hours as a result.

Discussion

Although V/A and fitting characteristics were very good with the initial ROSE K2 XL lens and comfort was an improvement over previous modalities, the key to success with this patient was the ability to configure edge lift independently of the central fit. Additionally, the ability to notch the lens in order to clear the pinguecula provided the patient with a solution that met her requirements for comfort, allowing for day-long wear.

Understanding the optional special design features available for the ROSE K2 XL design through consultation with the laboratory (Art Optical) was key to providing this patient an optimal and successful fit.

Conclusion

JH is delighted to return normal activities after 14 years of living with severely compromised vision. Her wearing time is generally 8 hours and has been pushed to 14 in a family emergency with little discomfort. JH is now able to drive during the day and at night and has recovered an important degree of independence.



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