

Case Report:

BostonSight SCLERAL-IG Revolution: Profilometry based fit for large lens

Dr. Barry Leonard

Dr. Barry Leonard is a therapeutic Optometrist with glaucoma certification and is skilled in the treatment and management of eye diseases, speciality contact lenses, corneal refractive therapy and the pre and post-operative care of patients. He combines his clinical experience with his task as Adjunct Clinical Professor for the Western University of Health Sciences, Pacific College of Optometry and Pennsylvania College of Optometry at Salus University. He is a member of the American Optometric Association, the California Optometric Association and a member of the AOA Contact Lens and Cornea Section.



Introduction

Large diameter scleral lenses can offer long-term benefits such as improved visual function. With the advent of Profilometry driven devices such as the Eye Surface Profiler, the fitting process can become faster, easier and more precise. With the BostonSight SCLERAL-IG these two leading technologies are combined for the first time. A 50 year old male with a history of LASIK, ectasia and pseudophakia, resulting in poor and double vision caused by Higher Order Aberration.

Profilometry Measurement

Profilometry directly measures 3D sagittal height, and creates a bi-sphere elevation map which shows where data is more elevated or depressed.

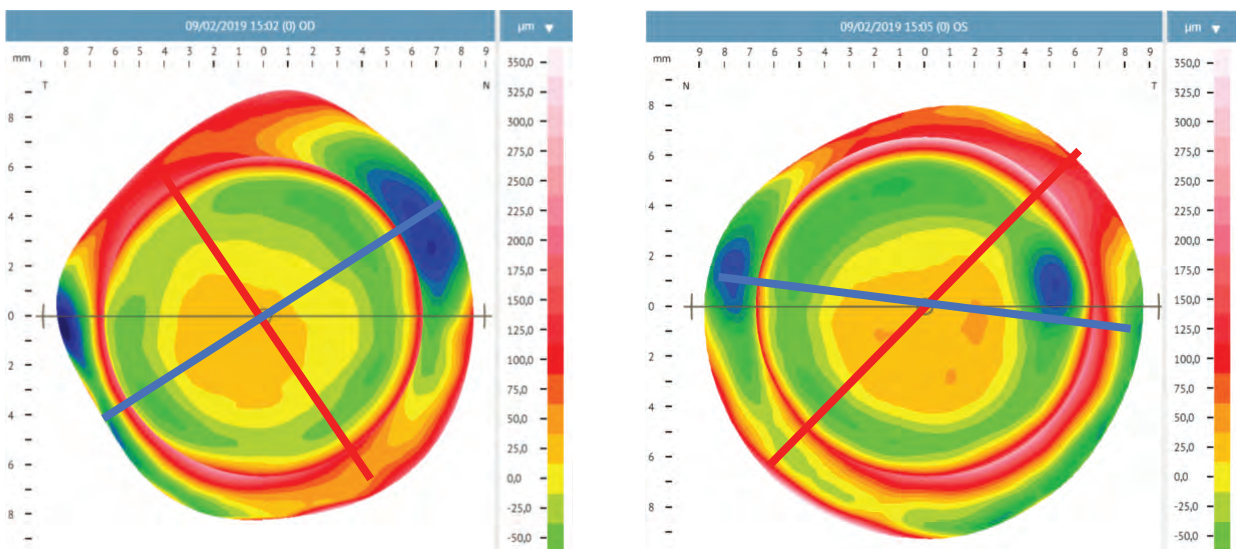


Figure 1

Lens Fit and Order

The First Lens Fit Algorithm developed for the BostonSight SCLERAL-IG exactly adapts to the scleral profile of each particular eye resulting in a 100% Image Guided fit. Right after the over-refraction, the lens was ordered.

Lens	
Supplier	Boston Sight
Type	SCLERAL R-5e1 or L-5e1
Diameter	18
Vault	-250
BCR	8.1
Meridian 1	-200
Meridian 2	-500
Meridian 3	-250
Meridian 4	-50

Lens	
Supplier	Boston Sight
Type	SCLERAL R-5e1 or L-5e1
Diameter	18
Vault	-250
BCR	8.1
Meridian 1	-550
Meridian 2	-100
Meridian 3	-200
Meridian 4	-550

Figure 2

Lens Fit Evaluation

The BostonSight SCLERAL-IG lens needs to be evaluated the same way as any other scleral lens. Both lenses showed good apical and limbal clearance. Scleral alignment was good except for impingement at the location of a pinguecula. For this a SmartChannel™ was selected and ordered.

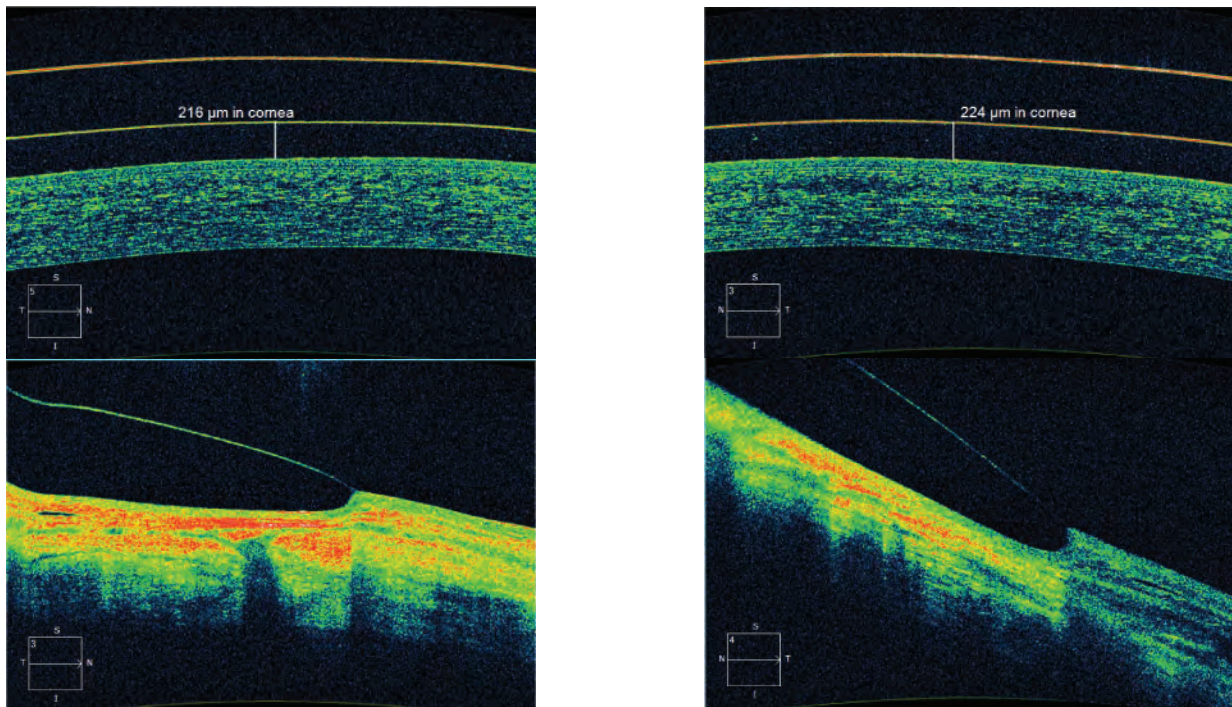


Figure 3

Conclusion

With the combination of Profilometry driven First Lens Fit Algorithm and BostonSight SCLERAL-IG scleral lens, 20/20 vision was restored for this patient with comfortable fit. The Image Guided profile of the BostonSight Scleral lens opens the next generation in scleral lens fitting.