

Bilateral Amblyopia, Nanophthalmos and Estropia

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Age:

17

Introduction/History

17 y/o Caucasian female with nanophthalmos, referred by her MD for a contact lens fitting. She had been wearing soft toric lenses for a decade. She had bilateral amblyopia, esotropia and nanophthalmos. Referred by MD for scleral lens fitting to improve vision and comfort.

Objective Findings/Subjective Comments

Current lenses:

Best corrected VA with habitual soft toric CL OU
 Rx: OD 20/150, OS 20/70
 Habitual spectacle V/A
 Rx: OD +15.50 -0.75 x 003 20/100, OS +15.25 -1.00 x 173 20/60 CT D & N:
 10 pd RET
 Suppression OD

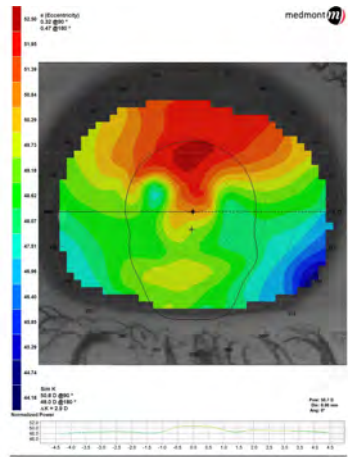
SLE: The visual acuity seemed very low considering she had vision correction since birth. Topographies revealed a reverse form-fruste keratoconus pattern.

Initial Rx lens Evaluation Dispensing visit:

OD: Onefit / 6.60 Base Curve / +18.75 / 15.2 Dia. / Flat 2 Landing Zone / 20/40 VA
 OS: Onefit / 6.60 Base Curve / +18.37 / 15.2 Dia. / Standard Landing Zone / 20/60 VA
 Central clearance was acceptable to shallow OU ~ 200µm, mid-peripheral bearing present OU. Superior cornea, lenses decentered temporally. Heel blanching OU noted at Landing Zone.

Subjective Comments Initial Rx lens:

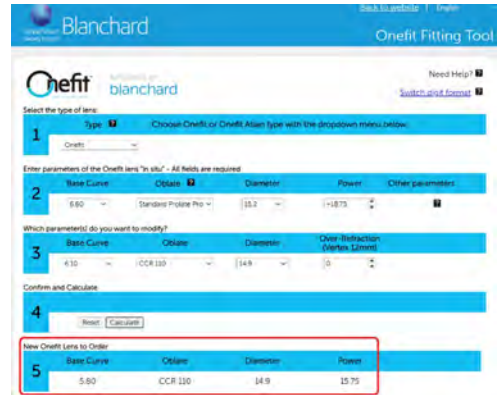
Patient stated she had never seen this well in her entire life, was wearing the lenses 12-14 hours per day and the lenses were very comfortable.



Objective Comments and Evaluation Cont'd:
Design changes included:

- Steepened Base Curve creating additional Fluid Reservoir depth OU in the mid-periphery.
- Resulting excessive central Fluid Reservoir (FR) depth OU reduced with a 110µm Oblate design enhancement.
- Reduced overall lens diameter from 15.2 to 14.9, accommodating nanophthalmos.
- Steepened landing zone OU to alleviate heel blanching.

Onefit Online Calculator design tool compensated the changes for final lens power.



2nd Rx Order/Follow-Up Visit

OD: Optimum Xtra / Onefit / 5.80 BC / 110 Oblate / 14.9 Dia. / +15.75 / OR Plano / LZ Steep 1
 OS: Optimum Xtra / Onefit / 5.80 BC / 110 Oblate / 14.9 Dia. / +16.25 / OR +50 / LZ Steep 1

Objective Findings: Central, Mid-peripheral FR depth was excellent. Centration excellent. Patient returned after 2 weeks with excellent comfort for all waking hours wear. V/A OD: 20/40, OS: 20/60. +1.50 readers were prescribed for work



Objective Comments and Evaluation:

Although patient had very positive comments, the physiology of fit needed to be addressed to optimize the overall fit to avoid potential long-term fitting compromises. Blanchard consultation validated the changes Dr. Thakrar wanted to make. Onefit Online Calculator for the final design was utilized.

CONCLUSION

Nanophthalmos, bilateral amblyopia, and esotropia resulted in blurred vision for majority of this patient's life. Corneal irregularity, was never measured before and she had been wearing soft lenses for a decade with very poor vision OD: 20/150, OS: 20/70. Onefit Scleral lenses provided superior vision, OD: 20/40, OS: 20/60 over her habitual glasses and soft toric lenses and an optimal physiology of fit for her microcomes. The patient was thrilled with the quality of her vision and newfound lifestyle. Onefit lenses...changed her life!

