One & Done:

**Ampleye replaces hybrid & resolves neovascularization for Keratoconus patient**

by Nicholas Gidosh, OD & Bethany Peebles, NCLE-AC

**Introduction**

RA is a 44 year old keratoconic patient.

**History**

The patient had been wearing a ClearKone hybrid contact lens in the OD and a piggyback modality with an AKS GP lens in the OS. He was achieving 20/20- OD and 20/30- OS but had developed neovascularization. The patient was refit in UltraHealth hybrid contact lenses to provide more oxygen permeability and achieved 20/25 OU; however the patient complained of discomfort and fogging issues. Dr Nick Gidosh then chose to refit the patient in the Ampleye 16.5 from Art Optical.

**Ampleye Trial Fit OD 1**

Based on corneal condition and topographical information, a 4600 SAG was initially selected for the right eye. Optic section clearly showed that the sagittal depth of this lens was too great (Figure 1).

**Figure 1-(4600 SAG)**

*Excessive clearance: Tear layer is more than double the thickness of the lens.*

**Ampleye Trial Fit OD 2**

The next trial lens selected was a 4200 SAG. Optic section revealed that this lens provides the correct central vault (Figure 2) and was found to be appropriate for both right and left.

**Figure 2 (4200 SAG)**

*Appropriate clearance: Tear layer is equal to the center thickness of the lens at the cone apex.*

**Ampleye Trial Fit OS 1**

Observation of the Limbal Lift Zone (LLZ) of the 4200 SAG indicates adequate clearance; however the Scleral Landing Zone (SLZ) demonstrates mild blanching in one region. (Figure 3)

**Figure 3 (4200 SAG)**

*LLZ shows fluorescein flowing fully past the limbus. SLZ shows localized blanching of the small vessels which requires an adjustment.*

**Final Ampleye Scleral Lens Parameters**

<table>
<thead>
<tr>
<th>SAG</th>
<th>BC</th>
<th>DIAM</th>
<th>PWR</th>
<th>SLZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td>4200</td>
<td>8.04</td>
<td>16.50</td>
<td>-0.50-1.25 x44</td>
</tr>
<tr>
<td>OS</td>
<td>4200</td>
<td>8.04</td>
<td>16.50</td>
<td>Plano-2.00 x169</td>
</tr>
</tbody>
</table>

**Conclusion**

Based on a single diagnostic fitting, a successful pair of Ampleye lenses were ordered and dispensed. The patient achieved 20/20 OD and 20/25 OS with great comfort. As Dr. Gidosh would say, “One and done!”

Dr. Nicholas Gidosh was the 2016 Cornea and Contact Lens Resident at the Michigan College of Optometry at Ferris State University. He completed his Bachelor of Science degree in Chemistry at Muhlenberg College in 2011 and his Doctorate of Optometry from the Pennsylvania College of Optometry at Salus University in 2015. He is currently providing care for patients in need of specialty contact lenses in a private practice setting.

Bethany Peebles is the Consultation Operations Leader and Cornea & Contact Lens Resident Program Administrator at Art Optical. She is a 2002 graduate of the Ferris State University Opticianry program and was NCLE certified that same year. She obtained advanced certification in 2005 and has over 15 years of experience as a specialty fitter.