

Advanced Technology Hybrid Contact Lens: UltraHealth FC in an Oblate Design

New Contact Lens for Post-Refractive Surgery Patients Receives Accolades during Panel Discussion at the 2015 Global Contact Lens Symposium

Panel Members: Halina Mańczak, MD, PhD, Jessica Bezner, OD, Jeffery Sonsino, OD, FAAO.

Moderator: Peg Achenbach, OD, FAAO.

The goal in contact lens management is to provide excellent visual clarity, all day comfort and optimal eye health. Post-surgical patients, including post-radial keratotomy (RK), post-penetrating keratoplasty (PK), and post-LASIK patients often need additional visual correction and may particularly benefit from the newest hybrid contact lens technology. It's no secret that the majority of post-RK patients with oblate corneas, flat irregularities and mid-peripheral steepening are more challenging to fit. A panel convened at the Global Contact Lens Symposium (GSLs) in Las Vegas to discuss a new advanced technology hybrid contact lens option for these patients.

The GSLs 2015 Panel Discussion provided perspective on a new hybrid contact lens technology for post-refractive surgery patients. UltraHealth® FC (Flat Curve) hybrid lenses have an oblate design with a hyper-Dk GP aspheric reverse geometry design. The variable curve design lifts the lens off the peripheral cornea with rigid gas permeable optics providing outstanding vision, and the soft skirt providing dependable centration.



Peg Achenbach, OD, FAAO, moderated a panel discussion with over 100 practitioners. She reviewed the previous two years of success of UltraHealth for keratoconus and then moderated a panel discussion on UltraHealth FC, the new hybrid lens with an oblate design.

Dr. Achenbach started out saying that, “the lens is for severe oblate corneas, for flatter irregularities and for mid-peripheral steepening conditions. The design provides steeper vaulting in the periphery and flattening out over the cornea, so we have greater sagittal depth with a flatter base curve that is perfect for the oblate corneas. Because of the design, SynergEyes named it FC, for flat curve.” Dr. Achenbach went on to say, “We all know that oblate corneas really pose a problem and a challenge for all of us who are trying to fit them. UltraHealth FC will help

expand the number of patients that can be helped with the UltraHealth lenses especially ones that require greater sagittal depth in the periphery.”

A New Lens of Choice for Post-RK Patients

“Ugh, here we go,” is how Jeffery Sonsino, OD, FAAO, used to describe the feeling when a post-RK patient sits down in his chair. Dr. Sonsino went on to say, “You know you were going to be seeing that patient for fifteen visits, you were going to be trying four different lenses, and none of them were going to work properly. You were just going to try to achieve some kind of compromise in the fit and the vision and the comfort and all of the things that we have to manage.”



Dr. Sonsino went on to describe the historical progression of treating a post-RK patient:

“We started out with corneal gas perms, fitting post-RK. The analogy that I like to make, especially with the patient, is when we put on a normal diameter corneal gas permeable lens, it is like taking a plate, putting the plate on a table and then shaking the table. That plate is just going to move all around as the eye moves. Even if you are using reverse geometry corneal gas perms the stability, or the instability, is so great that they just never work out properly.

Then we tried piggy backs and it worked a little bit better, but then the piggy back never aligns properly with the eye because it is an oblate shaped eye and it just is not a great strategy.

So then what did we do? We moved to larger diameter corneal lenses and we say, okay, if we create a little bit of vault back there, then maybe we can grab on to the cornea a little bit better. Did it work better? A little bit, it worked a little bit better, so we have now large diameter corneal gas perms, semi-sclerals, that grab the tissue a little bit better. What’s the problem with this? The problem is that each one of these semi-sclerals at some point rubs on the limbal stem cells. We are putting the cornea in mechanical trauma. In my practice, we have eliminated the use of semi-sclerals because we have had multiple instances, and not a lot of my patients are in these lenses, but we have patients who are sent in from other clinics where they have limbal stem cell failure, at that point, we are in big trouble with these eyes. We are not going to risk the patient’s eye by compromising and mechanically abrading and causing trauma to the limbal stem cells.

Even when you use sclerals for these patients, the vault is so great even with the reverse geometry scleral that the vision always suffers.”

Dr. Sonsino has been prescribing the UltraHealth FC lens for almost a year and went on to say, “We have a lens that acts like a normal lens even though it is accomplishing the task of fitting a very oblate eye, and that for me, is huge. I have many patients that, until this lens came out, were in sclerals and they were just kind of hobbling along, and then once this lens came out, we re-fit them in to the hybrid lens and they choose the hybrid every time.”

Jessica Bezner, OD, from Koffler Vision Group, went on to describe her experience with UltraHealth FC. “I have been fitting the lens for about eleven months and we’re seeing good results and patients are happy. The centration and all of those benefits mentioned previously make it really fun to work with those patients. They are all amazed. A lot of them, as you know, had RK twenty years ago, you know their story. I have gotten to where anytime I have a post-LASIK or a post-RK, I am trying the FC on them first, almost exclusively.”

Dr. Bezner went on to present her case studies, which are available to view in a poster presented at the Global Contact Lens Symposium. [View Poster>>](#)

Comfort and Vision Benefits

Dr. Achenbach asked the panel about comfort with UltraHealth, she received a candid response about post-RK patients.

Dr. Sonsino answered, “My post-RK patients were never comfortable. I couldn’t get lenses that fit well. They are comfortable in their scleral lenses, but their scleral lenses aren’t moving and there is no tear exchange behind. They end up with a toxic swamp behind the lens in the post lens tear reservoir. Those patients become uncomfortable after four hours of wear. For relative comfort, there is no frame of reference.

Nothing else is comfortable. The patients, when you put them in this new hybrid lens are comfortable, because you have a lens that moves, it pumps tears underneath and it keeps the eye physiologically happy.

Dr. Sonsino went on to say, “The benefit that we get from this UltraHealth flat curve design is centration, centration, centration. We have a lens that is stable on the eye but does move and so it forces a tear pump underneath and then we have that just little bit of vault available for the best optical qualities. My prediction is for these patients that are post-RK that have regressed and post LASIK patients, this is going to be our lens of choice.”

Dr. Bezner shared a case of a Post-RK patient. The patient was currently wearing a soft toric contact lens and just wasn’t satisfied with the vision. Dr. Bezner was able to get her to 25/50 in her best spectacle correction. The patient had RK incisions that had opacified, or gotten a little denser, making her vision not really the best. The fit was very straight forward. The patient ended up 255 vault in the flat skirt, with a power of a +5.00D and improved her vision to 20/30 from the best spectacle correction of 20/50.

The third panel member was Halina Mańczak, MD, PhD., from Poznan, Poland. Dr. Mańczak contributed a poster at GSLS titled Comparison of Clinical Performance of Vaulted Hybrid Silicon-Hydrogel Lenses and GP Corneal Lenses in Patients with Corneal Deformations.

Dr. Mańczak commented about the vision and health of UltraHealth. She said, “The UltraHealth lens gives us not only good visual acuity, but also visual stability, which is very important to our patients. Thanks to the soft cushion technology of the skirt, it brings comfort to our patients. The lens has a

great amount of oxygen transmissibility. I took a patient with pre-existing neovascularization and big pathological vessels and put them into UltraHealth. The neovascularization became ghost vessels, and the vessels, which grew in to the cornea were helped too. They shrank with the nice environment provided by the UltraHealth lens."

The UltraHealth FC Solution

Dr. Sonsino went on to say, "for the post-RK cornea, the UltraHealth FC lens acts like a normal lens even though it is accomplishing the task of fitting a very oblate eye. The UltraHealth FC lens is stable on the eye and allows movement so it forces a tear pump underneath plus, just a little bit of vault is available for the best optical qualities.

This is an example of the ideal fit for the UltraHealth FC on a post-RK eye. The lens is well-centered and well tolerated.



When to reach for UltraHealth vs. UltraHealth FC

With the introduction of the UltraHealth FC lens there are now broader choices for the irregular cornea patients. Dr. Achenbach talked about the lens design of the original UltraHealth and how the lens is best suited for keratoconus patients or patients with centrally oblate corneas. The more oblate corneas with a steeper periphery are better suited for UltraHealth FC.

UltraHealth FC is available in 55-505 μ vaults and 50 μ steps. It is available in three skirt curves, and lens powers from +10 to -20D. The ease of fitting the UltraHealth FC, makes it a viable solution for post-refractive surgery patients from both functional and practical standpoints. The UltraHealth FC lens requires a ten lens fitting set.

Hybrid contact lens technology advances in both materials and designs have provided post-RK patients with the hope of improved comfort and a better visual outcome.

Halina Mańczak, MD, PhD

Dr. Mańczak received her doctoral degree from K. Marcinkowski University of Medical Sciences, Poznań, Poland. She completed intensive course "Contact Lens Fitting" at the Institute of Optometry (London, England) followed by one year postgraduate residency program in contact lenses and education at University of Alabama at Birmingham, School of Optometry, USA.

A recipient of the Polish Contact Lens Society's "Cristal Lens Award" for achievements in the contact lens area, she has presented at conferences in Europe and in United States, lectured extensively and published in the fields of optometry, ophthalmology and contact lenses.

Jessica Bezner, OD

Dr. Bezner was raised in Lindsay, Texas and graduated cum laude with a Bachelor of Science in Biology and a Minor in Business from Texas A&M University. She then earned her Doctor of Optometry from the University of Houston, and was awarded clinical letters of excellence for outstanding patient care in the areas of Family Practice, Pediatrics, Contact Lenses and Ocular Disease.

During her clinical internships with the University of Houston, Dr. Bezner

gained extensive experience in the treatment and management of glaucoma, retinopathy associated with systemic diseases like hypertension and diabetes, binocular vision issues, myopia control and specialty contact lens fits. She also participated in the co-management of cataract surgery and various refractive procedures such as LASIK and PRK.

Jeffery Sonsino, OD, FAAO

Dr. Jeffrey Sonsino is a partner in a multi specialty practice in Nashville, TN. He mainly sees complex contact lens patients but performs clinical research nearly half of his time. On a consultative basis, he is the Director of Clinical Studies for SynergEyes. He is a Diplomate in Cornea, Contact Lens, and Refractive Therapies of the AAO and a Council Member of the Contact Lens and Cornea Section of the AOA.

Peg Achenbach, OD, FAAO

Dr. Peg Achenbach is a graduate of Pacific University College of Optometry and is currently the Vice President of Professional Services for SynergEyes. She and has also worked in the contact lens industry with Bausch & Lomb, J&J Vision Care, and Contamac, Ltd. Dr. Achenbach's professional career includes 16 years of private practice. For eight years she was involved in research and drug development in oncology, HIV, dermatology and nutritional supplements as a co-founder of a biotech company. She has been an international lecturer for the past 20 years and was a panel member of the New Jersey Commission for the Blind and Visually Impaired. Dr. Achenbach is a member of the Association for Research in Vision and Ophthalmology (ARVO), the American Optometric Association (AOA), International Association of Contact Lens Educators, (IACLE), the British Contact Lens Association (BCLA) and is a Fellow of the American Academy of Optometry (FAAO).