

Contact Lens Update

CLINICAL INSIGHTS BASED IN CURRENT RESEARCH

Contact lens discomfort solved through appropriate choice of lenses

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A 43 year-old female who wore a Group IV material lens (Biomedics 55, Cooper Vision 8.6/14.2/+1.00 OD and +2.00 OS) for single vision was interested in exploring multifocal or monovision options. Her spectacle refraction results were +1.25 DS OD and +2.00 DS OS with +1.00 add. She was right-eye dominant. Slitlamp examination revealed no anomalies except low grade neovascularization of the cornea limbus region (<1 mm.) She typically bought whatever contact lens multipurpose solution was on sale, and was at that point using Bausch&Lomb Renu.

The initial attempt was to fit her with a Proclear EP (Group II) lens. The initial fitting parameters were 8.7/14.4/+1.25 OD and +2.00 OS. She tried the lenses for one week and reported unsatisfactory vision as well as the sensation of a "film" on her eyes near the middle of the work day.

After a discussion regarding expectations and a trial frame refraction, we decided to proceed with a monovision fitting: CIBA Vision AirOptix (8.6/14.2/+1.25 OD and 8.6/14.2/+3.00 OS.) The vision and fit was satisfactory after 20 minutes of lens wear, with binocular VA of 6/6 and 0.4 M distance and near, respectively.

At the one week checkup, she reported a dryness sensation that she had not experienced with her previous lenses. Slitlamp examination with fluorescein revealed no signs of corneal staining. The superior and inferior tarsal conjunctivae findings were unchanged from the previous fit. The obvious differential diagnoses would be contact lens related dry eyes, solution sensitivity or lens material sensitivity.

Solution sensitivity is difficult to detect after two hours of contact lens wear, so I had the patient return in the morning after she had the lenses in for an hour. Annular-pattern fluorescein staining of the cornea was detected, therefore the contact lens solution was at least one contributing factor to her discomfort. I started her on ClearCare (CIBA Vision) hydrogen peroxide based disinfecting system, and asked her to return in one week.

At the follow-up appointment, comfort was much better but she reported a greater foreign body sensation with the new lenses than with her old lenses. AirOptix has an older silicone hydrogel design that is stiffer (i.e. higher modulus) than traditional hydrogels. I was reluctant to give up the higher oxygen permeability of a silicone hydrogel material, so instead of switching her back to the "tried and true" Biomedics 55, I fitted her with the Biofinity lenses (8.6/14.0) in the same power permutation. Biofinity (CooperVision) is also a silicone hydrogel lens, but has a low modulus of elasticity (i.e. softer). At the one week follow-up visit, the patient reported good comfort and vision with the new combination of ClearCare solution and Biofinity lenses in a monovision system.

Discussion

Contact lens discomfort is all too common in optometric practice, and there is a tendency for both the practitioner

and the patient to ignore the early signs of problems. Often, a patient reports dryness sensation (e.g. when using a computer at work) but says that it is "not too bad." At this point the practitioner may be convinced by that statement, perhaps suggesting that use of artificial tears may help. In my experience, however, the next time you see the patient he or she may not be wearing contact lenses anymore because of the dryness problem.

If dryness is a concern, there is a problem with the lens care system, lens material/fit and the ocular surface. Instead of adding artificial tears into this mix to try to solve the problem, it is more logical to apply a differential diagnostic perspective and determine which part of the system is the problem. It may be more laborious, but try changing one variable at a time to see if there is any improvement. Explain to the patient what you are doing, and why you are doing it. In an age where patients can order contact lenses on line for a lower cost, patients come to their optometrists for contact lens fitting because they believe we have the expertise to make their contact lens experience a rewarding one. Do not disappoint them.