Chair Talk: Water and GP Lenses: What we should be telling our patients

Thomas G. Quinn, O.D.

We know tap water is bad to use with soft contact lenses, largely due to the increased risk of Acanthamoeba keratitis (AK), but what about with GP contact lenses?

GP lens materials contain less than one percent water, compared to soft materials in which water content can range from 24 to 70 percent.\(^1,2\) The low water content of GP lenses may help reduce survival of unwanted organisms such as Acanthamoeba. At least one study supports this notion as it found less adherence of this dangerous water-borne protozoan to rigid contact lenses compared to soft lenses\(^3\).

It has been found that rinsing (in saline) was much more effective in removing Acanthamoeba trophozoites from rigid gas permeable lens surfaces than from soft lenses.\(^4\) Most of us have ready access to abundant, flowing tap water. The abundance encourages generous use; the force of flow aids in the removal of unwanted substances. Additionally, water dissolves more substances than any other.\(^5\)

Sounds like tap water might be a tool that can help us rinse a GP contact lens, doesn’t it? In fact, at least one manufacturer’s package insert specifically states that their cleaner should be rinsed with tap water.\(^6\)

What gives us pause about tap water?

Though vital to life and a wonderful solvent, tap water may contain bacteria, fungi and protozoa, all of which can stir up trouble with the eye. Though the risk of infection may be less with GP lenses versus soft lenses, at least one study found rinsing GP lenses worn for overnight orthokeratology with tap water to be associated with increased risk of AK.\(^7\)

The value of keeping it simple

It is well known that the vast majority of patients wear soft lenses. If exceptions were made in care recommendations for GP lenses, such as permitting the use of tap water in their care, patients in the larger soft lens wearing population may confuse this with permission to use tap water on their soft lenses.

A consistent message stating “don’t use tap water on contact lenses” may be most effective in protecting the eyes of all contact lens wearers. Now we need someone to develop a safe product that can provide the many benefits that are currently only provided by that magic elixir, tap water.

References:

1. www.paragonvision.com
2. www.bausch.com
3. (Kilvington and Larkin, 1990)
5. Ward MA. Should tap water be used to rinse GP contact lenses? Contact Lens Spectrum, 29(8):19, August 2014.
It’s a new day

Sharing information is the lifeblood of any organization. For many years, the e-newsletter has been the conduit through which the AOA Contact Lens and Cornea Section has funneled information to its members. A dedicated team of editors and writers have poured passion into the newsletter project, providing us with relevant, timely information, backed up by science.

But times are changing. There are new ways in which people exchange information. The AOA Contact Lens and Cornea Section will be part of that shift beginning January 2015. We will be sharing our message utilizing AOA’s crack team of communication specialists, who will help us share contact lens and cornea-related information with you and all AOA members.

Look for news on our efforts to stop illegal contact lens sales. Keep an eye out for new, evolving ideas on how to best prepare the ocular surface for contact lens success. Stay abreast of our efforts to inform everyone from the FDA, the FTC and the CDC to the media and public at large regarding issues relevant to contact lenses and the anterior segment.

It’s a new day. Each offers a new opportunity. While we look forward to evolving to the next stage, we also pause to appreciate all those who have dedicated themselves over the years to the mission of creating a top-notch CLCS Newsletter. We are proud. We are appreciative.

Thank you!

Dr. Quinn is in group practice in Athens, Ohio. In addition to serving as chair of the American Optometric Association’s Contact Lens and Cornea Section Council, he is a Diplomate of the Cornea, Contact Lens and Refractive Technologies Section of the American Academy of Optometry, and is an advisor to the GP Lens Institute. In addition to private practice, he serves as Clinical Assistant Professor for The Ohio University College of Medicine. He is a contributing editor for Contact Lens Spectrum. Dr. Quinn has served as an advisor or consultant to Alcon, Bausch and Lomb, CooperVision, and Vistakon and has received research funding from Alcon, Allergan, AMO, B&L, CooperVision, and Vistakon.

Please close this browser window to return to the Cross-Sections Newsletter.