

CASE STUDIES

Wearing lenses longer than prescribed

A 22-year-old Female

A 22-year-old Caucasian female presented to our office with mild pain, 2+ limbal injection worse superiorly, tearing and minimal photophobia of her left eye for one day. She reported wearing a two-week disposable contact lens on a daily wear basis for one to two months before discarding. She soaked her contact lenses nightly in fresh multipurpose solution, but didn't rub or rinse. She claimed to never wear her contact lenses overnight, but she did so one week prior for 48 hours. Her current lenses were one-and-a-half months old.

She reported wearing a two-week disposable contact lens...for one to two months before discarding

Slit lamp examination revealed two infiltrates, both with central fluorescein stain, straddling the two o'clock position. No anterior chamber reaction was present. We diagnosed her with two sterile (CLPI) (Figure 1). We presumed that both infiltrates were sterile because their individual sizes were less than 1mm, pain was minimal and we found no anterior chamber reaction or mucopurulent discharge.

We initiated standard corneal ulcer treatment: fluoroquinolone solution, one drop every 15 minutes for six hours, then one drop every 30 minutes for six hours,

followed by one drop every waking hour until re-evaluated. Evaluation at one day showed significant improvement in symptoms and minimal staining over the corneal infiltrates. We tapered the fluoroquinolone to one drop q2h. No corneal staining was present after 48 hours of treatment, allowing us to taper the fluoroquinolone to qid. One week following the initiation of treatment, all symptoms had resolved and two faint corneal scars remained.

A 23-year-old-Male

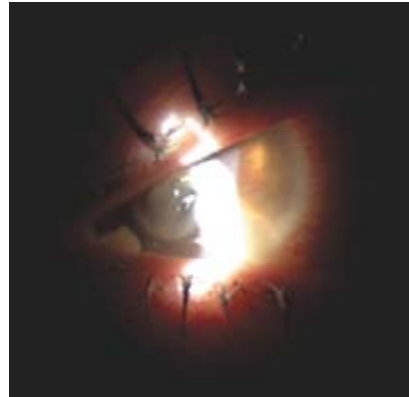
Although MK is rare, you must diagnose it correctly and initiate management promptly to avoid visually devastating outcomes. Educate your contact lens patients to seek medical care immediately if they experience eye pain or loss of vision.

He was a two-week disposable contact lens wearer, but he reported that he habitually replaced his lenses every month.

We recently managed a contact lens wearer who delayed seeking care for his red eye. The 23-year-old male patient presented to the clinic with a painful, red left eye of three days duration. He was a two-week disposable contact lens wearer, but he reported that he habitually replaced his lenses every month. He cleaned his lenses with a generic multipurpose disinfection solution.

She reported wearing soft contact lenses that she replaced only when they felt uncomfortable.

He had slept overnight wearing his contact lenses and had worn them continuously until midnight of the following evening when he began to notice pain and blurred vision. He didn't wear his contact lenses the following day, but his symptoms didn't improve. He sought medical care on the morning of day three because the pain had worsened and his vision had deteriorated.



He had no history of any ocular disease or injury and was in good overall health. Upon presentation, his left eye was painful and exhibited redness, photophobia and mucopurulent discharge. He reported the pain as a seven on a scale from one to 10. He presented without visual correction with entrance acuities of count fingers at one foot OS. His acuity OS failed to improve with a pinhole. Gross examination revealed a large, white opacity on the left cornea (Figure 2). Biomicroscopy OS showed mucous debris throughout the eyelashes and inferior cul-de-sac. We noted grade 4 circumlimbal and grade 3+ diffuse injection of the bulbar con-

junctiva. There was a 5mm epithelial defect with an underlying ring-shaped stromal infiltrate on the cornea OS. We also found grade 2 anterior chamber reaction OS.

We obtained scrapings of the affected corneal tissue for culturing. We then initiated treatment with a topical fourth-generation fluoroquinolone solution, one drop every 15 minutes for six hours, one drop every 30 minutes for six hours, then one drop every waking hour until re-evaluation. Although the U.S. Food and Drug Administration (FDA) has not yet approved the use of fourth-generation fluoroquinolones for treating MK, the off-label use of these drops has quickly become the drug of choice for many eyecare professionals because of their increased potency against both Gram-positive and Gram-negative pathogens.

We prescribed a second-generation fluoroquinolone ointment for use during sleep. A few days later, the culture had grown *Pseudomonas aeruginosa* as we expected. We monitored the patient closely over the next several days. At the two-week follow up, his visual acuity had improved to 20/80 OS. The corneal opacity had cleared substantially. We believe his vision will continue to improve and that he won't need to undergo a corneal transplant.

A 19-year-old Female

A 19-year-old female who was new to our office presented with circumlimbal redness, mild photophobia and tearing in her left eye upon awakening. She reported wearing soft contact lenses that she replaced only when they felt uncomfortable. She didn't know what brand of

lenses she wore or the prescribed replacement schedule. She also reported that she habitually sleeps overnight in her lenses, typically removing them once or twice per week.

She didn't know what brand of lenses she wore or the prescribed replacement schedule.

Slit lamp examination OS revealed grade 2 circumlimbal injection and multiple, small peripheral infiltrates that didn't stain with fluorescein. No anterior chamber reaction was evident. We diagnosed CLARE OS (Figure 4) and initiated treatment with an antibiotic/steroid combination drop qid OS for one week. We advised her to discontinue contact lens wear until follow up. Examination one week later revealed that all signs and symptoms had resolved. The conjunctiva was white and quiet, and all the infiltrates had cleared without scarring.

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