Could it be KC (KERATOCONUS)?

KC File #3: KC Masquerading as Myopia

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KC File #3: THE CLUES

- ➜ Late myopia progression
- ➜ History of ocular allergies, asthma, and eczema
- ➜ Vision not crisp even when corrected to 20/20
- ➜ Complaints of shadows

A 33-year-old Asian Indian woman was referred to me for an evaluation. She had a history of soft contact lens wear and although she had always corrected to 20/20 or better, noted that her vision had not been "crisp" for many years. By the time we saw her, she was very unhappy with her vision, particularly in the left eye, complaining of glare and "shadows." She refracted to 20/20 OD and 20/20- OS, with normal to borderline keratometry readings and clear corneas.

Her contact lens history showed frequent small changes in the prescription and progression of myopia and astigmatism between ages 20-31. During that time, the contact lens prescription for the right eye changed from -1.25 sphere to -3.50 -0.75 x 020 and, for the left eye, from -1.00 sphere to -2.75 -1.25 x 140. Given that myopia typically stabilizes by about age 15,[1,2] the degree of myopic progression in this patient's 20s should have been a clue that something was not right.

The patient's medical history included asthma, eczema, and seasonal allergies, for which she was treated with an inhaler, topical creams, anti-allergy shots, and eye drops. Keratoconus is associated with all three of these atopic conditions,[3] although it is not entirely clear whether atopy and keratoconus share common causative factors or whether corneal ectasia is provoked by eye rubbing due to itching associated with allergies.

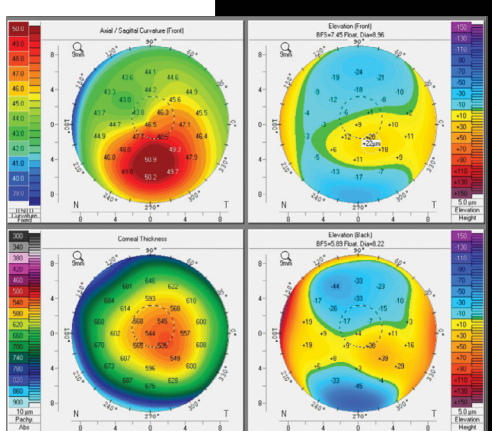

FIGURE 1

Corneal topography and tomography was performed in this patient for the first time at age 33, during her first pregnancy. This corneal imaging ultimately confirmed the diagnosis of keratoconus; the left eye (Fig 1) was determined to be worse than the right and progressing. Unfortunately, cross-linking of the left eye had to be delayed due to the patient's pregnancy. Hormonal changes during pregnancy can reduce corneal stiffness and cause or exacerbate an ectatic response.[4] iLink cross-linking is contraindicated during pregnancy because of the unpredictability of corneal changes and unknown effect on the fetus of topical drugs used during and after cross-linking.

Following unsuccessful fits with toric soft and hybrid lenses, a scleral lens was able to eliminate the shadows and higher order aberrations she was experiencing in the left eye. After delivery, the patient underwent FDA-approved iLink® cross-linking in her left eye. Both eyes have now been stable for about 7 years, and she wears toric soft contact lenses OU comfortably. She has been prescribed antihistamine eye drops and counseled to not rub her eyes. We continue to monitor her and have begun monitoring her now 7-year-old son for signs of KC.

This case illustrates that KC can present with 20/20 vision, low myopia and mild astigmatism, and no obvious changes at the slit lamp. Complaints of "shadows" and vision that is not crisp were key clues, especially in an atopic patient with progressing myopia. The delay in treatment due to pregnancy was unfortunate and could have been avoided with earlier diagnosis.

By following the KC clues that are hiding in plain sight, you can help patients get diagnosed and treated earlier, taking one more concern off your patients' plate as they become parents themselves. Visit iDetectives.com to learn more.

REFERENCES: 1. Polling JR, et al. Br J Ophthalmol 2022;106:820-4. **2.** The Comet Group. Invest Ophthalmol Vis Sci 2013;54:7871-84. **3.** Bawazeer AM, et al. Br J Ophthalmol 2000;84:834-6. **4.** Jani D, et al.Clin Exp Optom 2021;104(8):815-25.

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PM-US-2118 Rev. 1