



A Case of Overcoming Social Determinants of Health in the Management of Vernal Keratoconjunctivitis

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Introduction

- Vernal keratoconjunctivitis (VKC) is an atopic condition that primarily impacts young males in hot, dry climates. Symptoms include pruritis, ulcers, photophobia, and mucous discharge secondary to inflammation of the conjunctiva.
- Distinctive indicators of VKC are Horner-Trantas dots (clusters of epithelial cells and eosinophils), large cobblestone papillae on the upper tarsal lids, and shield ulcers.
- Treatment can involve conservative options such as lubrication and mast cell inhibitors, but escalation to steroids and immunosuppressive medication may be necessary.
- Social Determinants of Health (SDOH) are non-medical factors that influence health outcomes, such as language barriers, socioeconomic status, education, transportation, access to healthcare, cultural background, and environmental conditions, that play a major role in shaping 80-90% of a health outcome.
- Language barrier, limited transportation, and access to health insurance proved to be the most significant obstacles to effective treatment in the case presented below.

Case Report

- 13-year-old male recently moved from Turkey with history of vernal keratoconjunctivitis.
- While in Turkey, patient underwent excision of RU palpebral conjunctival lesions, sutured amniotic membranes, corticosteroid injections, and high doses of oral prednisone.
- Visual acuity was LP OD and 20/600 OS, periocular dermatitis and blepharitis with 1+ injection, lids with giant cobble stone papillae, corneas with peripheral neovascularization and epithelial irregularities along with opacification. Lenses with diffuse clouding OD and 2+ posterior subcapsular cataract OS.
- Extensive coordination with case worker was required to overcome language barrier for follow up appointments and access to care.
- Patient was able to follow up with allergist, fitting for rigid gas permeable contact lenses, and specialist for bilateral cataract extractions. Patient had disability paperwork filled out with primary care provider in meantime to arrange for services.
- Patient was started on Zyrtec, Advair, albuterol, and allergy shots after IgE levels were significantly elevated in bloodwork, along with continued treatment involving oral steroids, antibiotic ointment, Verkazia, Tacrolimus ointment, Fluoromethalone drops, Prednisolone.
- Post cataract extraction exam shows improved visual acuity of 20/80 OD 20/50 OS with reduced conjunctival inflammation.

Ophthalmic Imaging



Figure 1: Giant cobblestone papillae on initial presentation

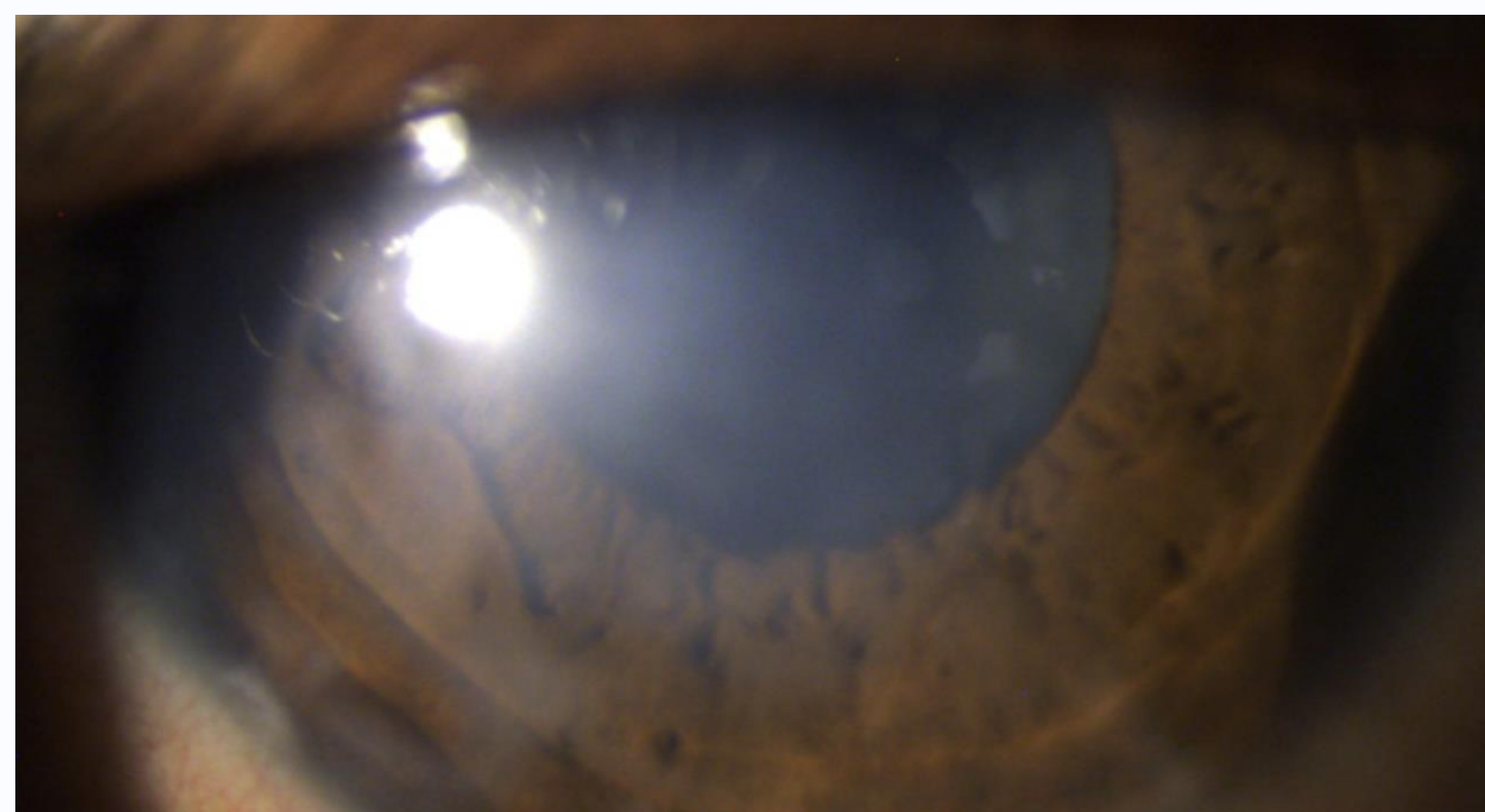


Figure 2: Corneal opacification on initial presentation

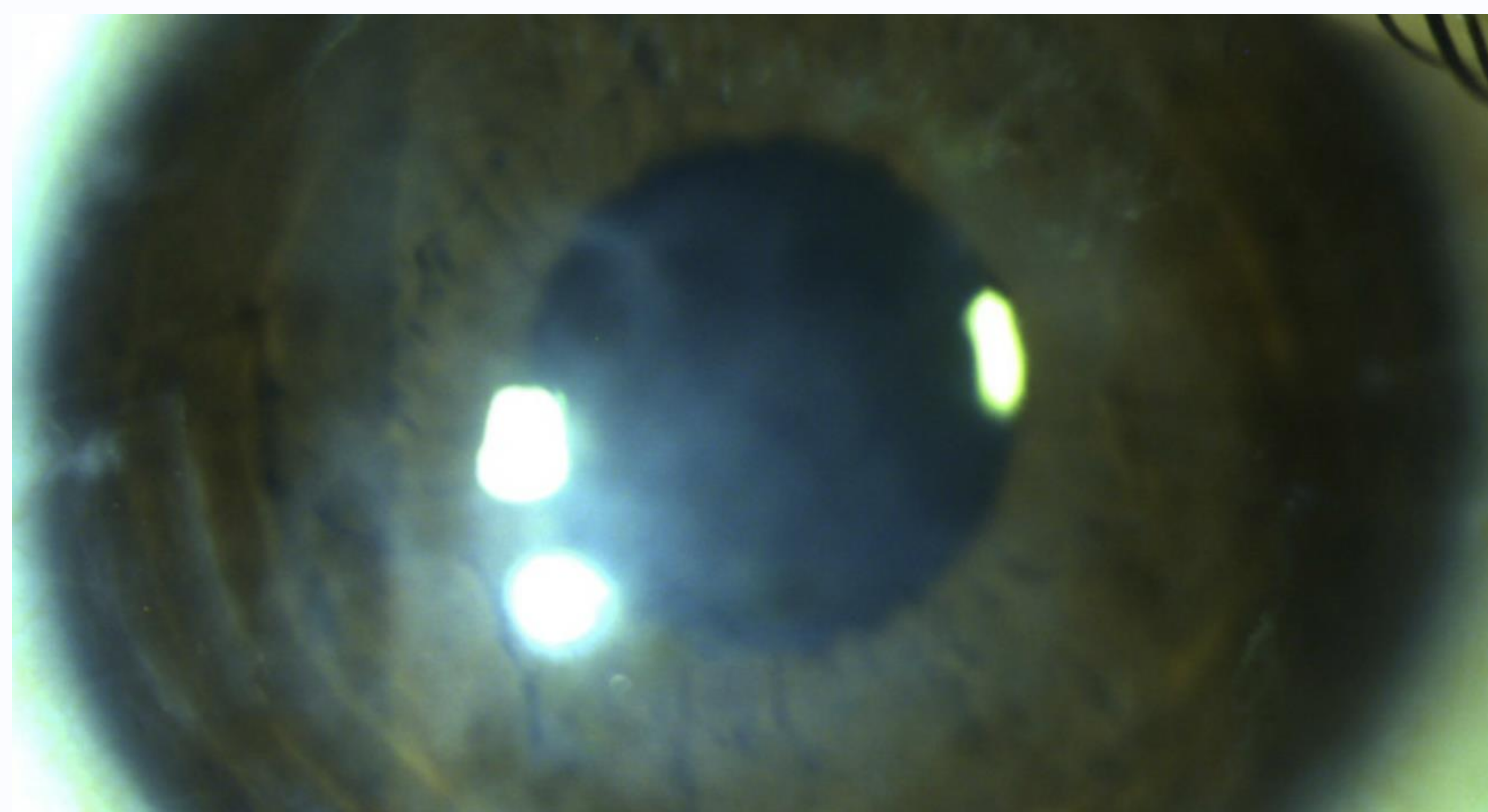


Figure 3: Follow up visit s/p PCIOL

Discussion

- SDOH barriers can complicate already difficult to manage conditions such as this case of severe vernal keratoconjunctivitis (VKC).
- Language barriers pose a substantial obstacle in healthcare delivery, and in this case, it was essential to bridge this gap to ensure the patient and his guardian understand their condition and treatment plan. Through the implementation of interpreter services and multilingual healthcare professionals, effective communication was established, facilitating patient comprehension and adherence to the treatment regimen.
- Transportation barriers further complicated the patient's access to care, impeding regular follow-up appointments and timely administration of medications. Patient age and inability to drive or take public transport forced us to rely on guardian for transportation. Strategies such as providing transportation assistance and arranging telemedicine consultations helped overcome these logistical challenges, ensuring continuity of care and adherence to the treatment plan.
- Navigating insurance coverage for specialized treatments like Verkazia presented a significant logistical barrier. By working closely with the SUNY Upstate pharmacy access team, insurance providers, and advocating for the patient's needs, the necessary coverage for Verkazia was secured, ensuring access to this crucial aspect of the treatment plan.
- This case underscores the necessity of a holistic approach to patient care, which considers not only medical interventions but also the social, economic, and environmental factors that impact health outcomes. By addressing these barriers, we achieved successful treatment outcomes, highlighting the importance of addressing SDOH in healthcare delivery.

References

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