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Chronic bilateral multifocal superficial keratitis in a pediatric patient

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1. Case report

A 5-year-old Latin American girl in overall good health was referred to the cornea service due to a complaint of persistent bilateral bothersome photophobia that started about a year ago with no prior history of any ocular condition. On presentation, her best corrected visual acuity was 20/60 OD and 20/50 OS, with refraction of −1.25 OD and −1.75 OS. Upon slit lamp examination in both eyes, she had a quiet conjunctiva and a distinctive radial pattern of superficial, mildly elevated, linear, opacified lesions in the cornea, confined mostly to interpalpebral space in distribution pattern of epithelial migration (Fig. 1A and B, 2). Lesions stained in a punctate manner with fluorescein (Fig. 1C and D). The rest of the exam was unremarkable. Cornea sensitivity was normal. The patient was unable to tolerate Schirmer's testing but had normal tear lake. No papillary or follicular reaction was found in the fornixes. Family had no history of corneal disease. Due to lack of cooperation, we were not able to perform confocal microscopy or anterior segment OCT. Photos were taken of the patient, and after discussion, it was decided the condition was likely similar to Thygeson's superficial keratitis (due to superficial nature and light fluorescein staining). Thus, we started prednisolone 1% three times a day. The patient returned to clinic in four weeks later with complete resolution of the lesions. The prednisolone was tapered off by one drop a day per week and the patient has been seen every 6 months for over 18 months with clear corneas and no recurrence, as of yet.

2. Discussion

The differential diagnosis of keratitis in children includes congenital conditions, trauma, vitamin A deficiency, deposits of systemic medication, atopy, or infectious diseases.[1] Our patient did not have any congenital or systemic condition, being completely healthy except for the corneal lesions. She was not on any systemic medication. Infectious causes, such as staphylococcal and pneumococcal keratoconjunctivitis or herpes keratitis, were not a probable cause due to the chronic bilateral presentation and appearance of the lesions. These lesions, being superficial, also did not appear consistent with common virus-related conditions, such as post adenoviral subepithelial infiltrates or Epstein Barr Virus nummular keratitis. A dry eye condition resulting in filamentary keratitis was considered but not consistent with exam and age group. Thygeson's superficial keratitis is a bilateral keratitis of unclear etiology which results in punctate superficial lesions and responds quickly to steroid treatment. Characteristics of our case that are similar to Thygeson's keratitis are the symptoms of photophobia, the presence of small opaque and elevated lesions concentrated in the interpalpebral region, quiet conjunctival appearance, and the fast resolution with steroid therapy.[2] However, linear lesions and vortex pattern are not mentioned in Thygeson's cases.[3] Hurricane and vortex keratopathies can have a linear appearance but are not noted to have superficial linear white lesions.

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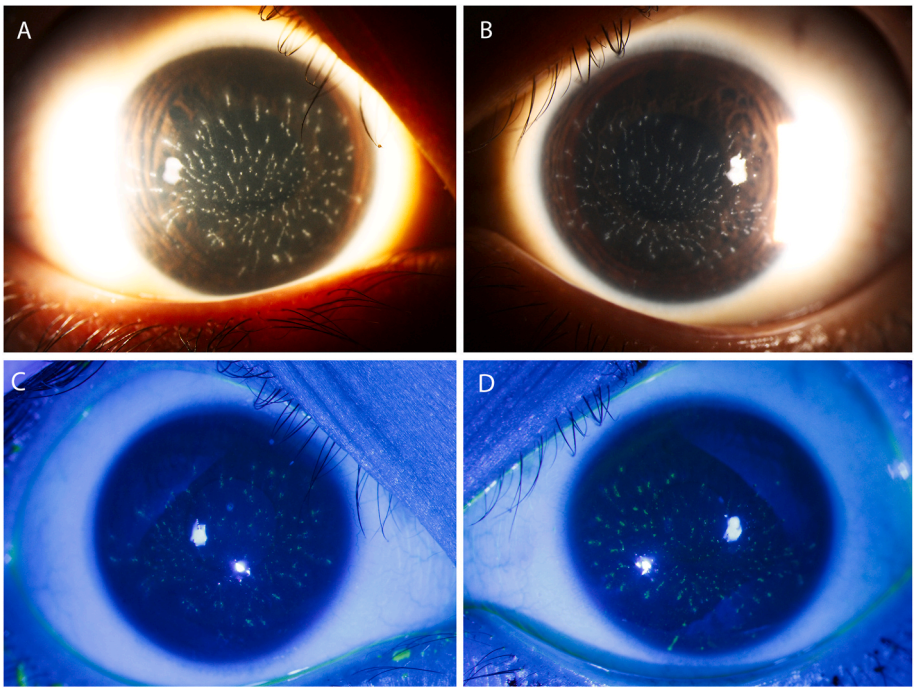

Fig. 1. Scleral scatter photography of right (A) and left (B) eyes showing elevated, linear, white lesions in the interpalpebral space. Photography with cobalt blue light of the right eye showing staining of corneal lesions with sodium fluorescein right (C) and left (D).

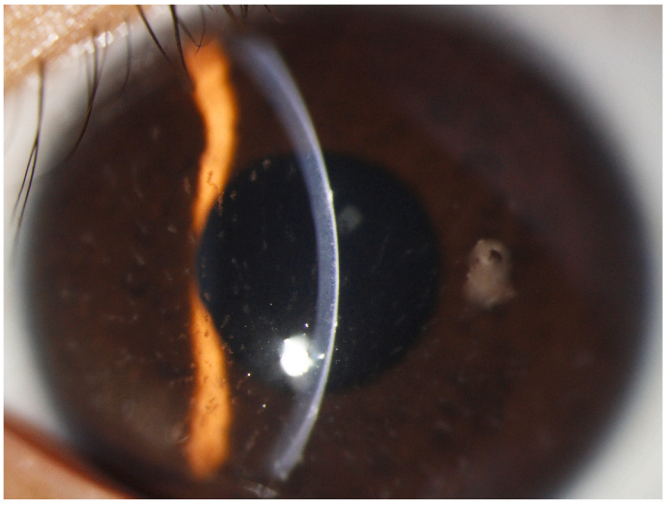

Fig. 2. Slit lamp beam photo of the lesions in the left eye.

3. Conclusion

We here present a bilateral superficial keratitis of very distinctive appearance but unclear etiology that we have not seen previously published. Given our experience with this case, it appears to have some similarity with Thygeson's disease, and a short course of topical steroid therapy can be used to treat this condition effectively.

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Consent

Patient's legal guardian consented to publication of case in writing.

Declaration of competing interest

None.

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