

The three faces of herpes simplex epithelial keratitis: a steroid-induced situation

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DESCRIPTION

A 40-year-old south Asian blue collar worker presented to us with worsening pain, photophobia and redness for 15 days in spite of taking medications.

Slit-lamp examination and fluorescein staining showed three different varieties of lesions: epithelial dots (9 o'clock), dendritic pattern (6 o'clock) and a geographic epithelial keratitis (12–2 o'clock), suggesting herpes simplex virus epithelial keratitis (figure 1). The two former lesions occur more commonly, and geographic keratitis occurs rarely due to coalescence of dendritic lesions; from either topical steroid abuse or low immunity.^{1 2} It is rare to see all these three presentations at the same time.

Review of medications confirmed the use of Prednisolone eye drops acetate, which explains the occurrence of the geographic lesion. It is often prescribed in cases of red eye to bring symptomatic relief. However, the classic recommendation is to refrain from this practice as topical steroids can worsen untreated infective keratitis, or prolong viral shedding in adenoviral conjunctivitis.

The patient was also evaluated by the internist for immunocompromised state including clinical signs of acquired immune deficiency syndrome. Serological testing for HIV infection was also performed. There were no clinical or serological features suggesting an HIV infection or other systemic immunocompromised states. It is important to note here that if the patient had displayed systemic immunocompromise, it may have been useful to

add oral Aciclovir to the treatment.³ We also recommend HIV testing for all such patients.

Most cases with geographic ulcers present late with a larger ulcer. We believe that as this patient presented earlier in the disease process, all the three phases could be seen at the same time. It is likely that had he continued using the steroid, these lesions would have coalesced to form a single geographic ulcer.

Apart from being unique in that all three phases of HSV keratitis were seen together in one eye, this case also stresses the importance of avoiding steroid drops in an undiagnosed early red eye. The treatment included acyclovir eye ointment 5×/day and stopping the topical steroids.

Learning points

- ▶ Any case of undiagnosed red eye should be evaluated in detail before starting topical steroids.
- ▶ Staining the cornea with sodium fluorescein solution will highlight any epithelial lesion, which is generally a contraindication for steroid drops.
- ▶ Dendritic pattern is the most characteristic display of presentation for herpes simplex keratitis. However, the other two forms, epithelial dots and geographic ulcer can also occur and thus should be ruled out actively.



Figure 1 Slit-lamp photograph showing three phases of lesions: epithelial dots (9 o'clock), dendritic pattern (6 o'clock) and a geographic epithelial keratitis (12–2 o'clock), suggesting herpes simplex virus epithelial keratitis.

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Competing interests None.

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