More than a scratch: emergency setting eye evaluation during COVID-19 lockdown

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DESCRIPTION
A middle-aged man presented to the acute eye clinic during the COVID-19 pandemic complaining of a red painful left eye. This was following trauma by a shrub branch while gardening. At initial review, a partial thickness-shelved corneal laceration was surprisingly noted to be Seidel negative, despite transecting almost 90% of the corneal thickness at the deepest point (figure 1).

Seidel test helps rule out a full-thickness corneal defect, which would result in aqueous leak from the anterior chamber. Concentrated 2% fluorescein is applied topically to the eye and illuminated with the cobalt blue light filter on a direct ophthalmoscope or slit lamp. Fluorescein is a fluorophore excited by blue light (465–490 nm) and fluorescing yellow–green light (520–530 nm). Concentrated fluorescein is dark orange. Aqueous leak dilutes the fluorescein resulting in a bright yellow fluorescence at the aqueous-fluorescein border.\(^1\) This is called a positive test result, which may arise from trauma or corneal melt due to conditions such as rheumatoid arthritis.\(^2\)

Small-shelved corneal lacerations with a formed anterior chamber may not require suturing as they often heal spontaneously.\(^3\) This case was managed conservatively with a bandage contact lens and intensive topical antibiotic (preservative-free 0.5% levofloxacin hourly) and cycloplegic (cyclopentolate 1% three times a day) eye drops. A Cartella eye shield was used to protect the eye in between clinic reviews. The follow-up period was over 5 weeks with five clinic visits. Final best corrected visual acuity was 6/5. Close follow-up was required as there is a risk of fungal infection from gardening injuries.

Contributors VA: collected the information and wrote the case report. TG and RMKS: contributed to revising and finalising the manuscript. All authors were involved in the patient’s care.

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Learning points
- We hope this case is a reminder to the reader of the high clinical value of the simple yet effective Seidel test, which can detect potentially sight-threatening ocular trauma.
- Eye and vision-related presentations are very common both in primary and secondary care.\(^4\) Lockdown is resulting in more people undertaking home-improvement and gardening work with high-powered tools, which have the propensity to cause penetrating eye injuries.\(^5\)
- The equipment required, a direct ophthalmoscope and fluorescein drops, is routinely held in both the general practice as well as emergency department settings.

Patient’s perspective
I felt very fortunate to avoid surgery and maintain good vision despite a serious eye injury. And it became important for me to spread the word to family and friends about the importance of eye protection.

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